RADIOLOGICAL EMERGENCY RESPONSE PLAN

FOR

NUCLEAR POWER PLANT INCIDENTS

FOR

RICHARDSON COUNTY

This Plan complies with Title VI
of the Civil Rights Acts of 1964 (P.L. 88-352)
in that it was developed and actions described will be carried out
without discrimination against anyone
due to color, race, national origin, religion, sex, age, or handicap.

Prepared By:
The Radiological Emergency Preparedness Division
Nebraska Emergency Management Agency,
in cooperation with
Richardson County Emergency Management

30-January-2015
Revision One

RICHARDSON COUNTY RADIOLOGICAL EMERGENCY RESPONSE PLAN

PREFACE

This Radiological Emergency Plan establishes the policies, plans, and guidelines that will allow Richardson County emergency response organizations to function effectively as a team should an emergency incident occur at the Cooper Nuclear Station.

The plan is consistent with Federal guidelines and the State of Nebraska Radiological Emergency Response Plan.

Organization of this plan is designed to enhance a functional approach to specific responsibilities through the incorporation of the following components:

Basic Plan: Serves as an overview of Richardson County's approach to emergency management, assigns responsibilities, and defines broad policies, plans and procedures.

Annexes: Seven functional Annexes that address the task areas deemed critical to emergency response and recovery.

Attachments: Abbreviated checklists defining specific tasks by time phase as well as other supporting information are attached where needed.

This Plan supersedes all previous Emergency Response Plans for Nuclear Power Plant Incidents.

RESOLUTION 2015-2016-2

RADIOLOGICAL EMERGENCY PLAN

WHEREAS, the Board of Commissioners of Richardson County, Nebraska, Pursuant to Nebraska Statute, is vested with the authority of administering the affairs of Richardson County, Nebraska; and

WHEREAS, it has been determined that an Emergency Response Plan for Nuclear Power Plant Incidents has been developed in order to provide for a coordinated response to the prospective need for the evacuation of Falls City and of the prescribed portions of Richardson County, Nebraska; and

WHEREAS, the Board of Commissioners of Richardson County, Nebraska, deem it advisable and in the best interest of Richardson County to approve said Emergency Response Plan for Nuclear Power Plant Incidents;

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Richardson County, Nebraska, that the Emergency Response Plan for Nuclear Power Plant Incidents be, and hereby is, approved.

PASSED AND APPROVED this 11 day of August, 2015.

David D. Sickel
David Sickel, Chairperson

Myron J Davidson
Myron Jim Davidson

James M Standerford
Jim Standerford

RICHARDSON COUNTY SEAL CLERK

Mary L. Eickhoff
Mary L. Eickhoff, County Clerk

RICHARDSON COUNTY RADIOLOGICAL EMERGENCY RESPONSE PLAN
SIGNATURE PAGE

We, the undersigned have reviewed the Radiological Emergency Response Plan for Nuclear Power Plant Incidents for Richardson County and the communities of Falls City and Shubert. We accept the responsibilities pertaining to our organization as defined in the plan and will respond as required in the event of an incident at the Cooper Nuclear Station.

_____ _____

Richardson County Sheriff Date

_____ _____

Richardson County Emergency Management Agency Date

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RICHARDSON COUNTY

RADIOLOGICAL EMERGENCY RESPONSE PLAN

BASIC PLAN

I. AUTHORITIES AND AGREEMENTS

Authority for this plan is contained in: The Reissue Revised Statutes of Nebraska, July 1996, 81-829.36 to .75 Nebraska Emergency Management Act; the State Emergency Operations Plan; the State Radiological Emergency Response Plan for Nuclear Power Plant Incidents; the Richardson County Resolution establishing the Richardson County Emergency Management Agency. All normal working and mutual aid agreements established between city and county agencies apply. There are agreements between the American Red Cross and the State Department of Social Services (now known as Health and Human Services), which support the reception and care of evacuees. In addition, formal agreements have been promulgated between the Cooper Nuclear Station and the Falls City Community Hospital, the Shubert Fire Department, the Richardson County Sheriff, and the Regional Radiation Health Center located at the Nebraska Health System in Omaha (Appendix 1) the original agreements are on file at the Cooper Nuclear Station.

II. DEFINITION OF TERMS

A. Congregate Care (Lodging & Feeding) Facility: A public or private building located in a safe reception area and capable of housing evacuees.

B. Emergency Action Levels: An emergency classification scheme for use in defining action levels relating to nuclear power plant incidents. These are consistent with guidelines contained in NUREG-0654 and are defined in detail in Annex A. The emergency classes are:

1. Notification of Unusual Event
2. Alert
3. Site Area Emergency
4. General Emergency

C. Emergency Alert System (EAS): The Emergency Alert System is composed of AM, FM and TV broadcast stations and non-government industry entities operating on a voluntary, organized basis during emergencies at the national, state, or operational levels.

D. Emergency Operating Center (EOC): The protected site from which Richardson County government officials exercise direction and control in an emergency. The Richardson County EOC is located in the lower level of the Richardson County Courthouse, 17th Street & Hwy. 73, Falls City, Nebraska.

E. Emergency Operating Facility (EOF): The location for licensee, federal, state and local operations for the evaluation and coordination of all activities related to an emergency at a nuclear power plant. For the Cooper Nuclear Station, the EOF is located at the site of the station near Brownville, Nebraska. An alternate EOF (AEOF) is located in the Nemaha County Multiplex Building, Auburn, Nebraska.

F. Emergency Planning Zone (EPZ): A generic area around a commercial nuclear facility used to assist in off-site emergency planning and the development of a significant response base. For commercial nuclear power plants, EPZs of about 10 and 50 miles are delineated for the plume and ingestion pathways respectively:

1. Plume Exposure Pathway EPZ: This zone is defined by five subareas based on landmark descriptions around the nuclear facility. Government and/or individual actions may be necessary within this radius to provide protection from possible health hazards associated with direct exposure to or inhalation of, releases of radioactive materials resulting from an incident. This plan addresses emergency response for this 10-mile EPZ and all reference to EPZ in this plan are for the 10-mile area. The risk population within this area has been identified (See Annex A) and this plan developed for implementing any necessary protective actions.

2. Ingestion Exposure Pathway EPZ: This zone is defined by a 50-mile ring around the nuclear facility. The principal exposure in this EPZ would be from ingestion of contaminated water or foods such as milk or fresh vegetables. This plan does not address specific protective actions for this EPZ since the primary response would be multi-jurisdictional in nature and the responsibility of appropriate state and federal agencies such as the Department of Agriculture. Examples of specific protective actions are contained in the State Radiological Emergency Response Plan.

G. Emergency Protective Actions: Measures taken after an off-site release of nuclear radiation to prevent or minimize radiological exposures to persons in the threatened area. Examples of emergency protection actions as discussed in this plan are: Area access control, in-house shelter, medical prophylaxis, decontamination, respiratory protection, and evacuation.

H. EOC Staff: The Emergency Management Director and members of the emergency management organization tasked to operate the Emergency Operating Center during disasters. Also includes key coordinating and supporting staff positions that function only during disasters such as: Communications Officer; Public Information Officer; Medical Coordinator, etc.

I. Emergency Worker: A person or persons who are primarily responsible for carrying out emergency functions. Emergency functions include radiological monitoring, fire fighting services, law enforcement, medical and health services, rescue activities, area security functions, communications, evacuation measures, welfare services, and other related functions assigned by competent authority to protect the health, safety, and property of the general populace. Emergency workers are listed in three categories:

Emergency Worker Category (1):

The particular emergency worker assignment for first response.

Emergency Worker Category (2):

Whether they will be working in a potentially high exposure rate area [greater than 0.1 Roentgens per hour (R/h)]. Areas inside the plume emergency planning zone (EPZ) should be considered category (2).

Emergency workers assigned to categories (1) or (2) include the following: radiation monitors, police and law enforcement, firemen, rescue personnel, ambulance crews, evacuation vehicle/bus drivers, essential services or utility personnel, and personnel carrying out backup alerting or traffic control functions. They may be exposed to the airborne release while carrying out their missions. Consequently, the means for measuring the radiation exposure of these personnel should be available at the beginning of the nuclear accident.

Emergency Worker Category (3):

Whether they will be working in a potentially low exposure rate area (less than 0.1 R/h). Areas outside the plume EPZ should be considered in category (3).

The following are examples of emergency worker activities that should be performed in category (3), a low exposure rate area: dosimeter issuance and collection, and dose record keeping at dispatch locations for radiological monitors, emergency workers, and environmental/agricultural sampling team collectors; traffic and access control points for reentry, emergency operating centers; counting laboratories; communication centers; reception centers where evacuees are monitored for contamination; decontamination facilities; hospitals and other medical facility personnel.

J. Exclusion Area (Nuclear Power Plant Incident): The area surrounding a nuclear power plant in which the licensee has the authority to determine all activities including exclusion or removal of personnel/property from that area. The term is synonymous with "on-site".

K. Executive Group: The control group in the Emergency Operating Center during emergency operations. Consists of the Chief Executives (County Board Chair, etc.) of the affected jurisdictions and/or their deputies.

L. Health Physics Professional (HPP): A person who is registered with or meets the qualifications of registration as a Plenary Member with the Health Physics Society.

M. In-House Shelter: This protective action could be recommended in the event of a short-term or low-level radioactive release where evacuation actions are not warranted. Taking in-house shelter means staying indoors (in a residential, commercial or public building), closing all windows and openings to the outside area and turning off all air conditioners or fans vented to the outside.

N. NEMA: Nebraska Emergency Management Agency.

O. Off-Site Nuclear Incident: An incident affecting area outside the plant site and which may pose a hazard to the public requiring community response. Implies initiation of off-site notification procedures for local and state governments as well as assessment and government decisions necessary to implement emergency protective actions.

P. On-Site Nuclear Incident: An incident which affects the plant on-site area only, and poses no significant threat to public health.

Q. Post Emergency: Post emergency actions are those coordinated actions necessary for an affected community and its residents to return to normal operations subsequent to the relaxation of protective measures implemented in a nuclear power plant emergency. Decisions to relax protective measures/actions will be based on recommendations resulting from an assessment of the affected (hazard) area by HHS Regulation & Licensure.

R. Protective Action Guide (PAG): Projected absorbed dose to individuals in the general population which warrants protective action following a contaminating event. PAGs are tools used as a decision aid in an actual response situation.

S. Public Transportation: Any transportation, government or privately owned, arranged for by local government and provided to the general public for transportation to safe areas. Public transportation could be designated for institutionalized persons and those without access to private vehicles.

T. Public Transportation Staging Area: Predesignated locations within the 10-mile EPZ where persons needing transportation will assemble.

U. Radiological Emergency: A type of radiological incident that poses an actual or potential hazard to public health or safety or loss of property.

V. Reception Area: An area at least 5 miles, and preferably 10 miles, beyond the plume exposure (10-mile) EPZ consisting of one or more congregate care facilities. Falls City and Nebraska City have been designated as joint reception areas for the Cooper Nuclear Station.

W. Registration Center: A single facility located in each reception area that will provide for registration of evacuees. Assignments to congregate care space and feeding facilities will be made at the registration centers. Locator files of evacuees will be maintained at each registration center. A radiological monitoring point and a decontamination station may be established at or near the registration center.

X. State Field Command Post (FCP): An emergency state government field direction and control activity deployed in support of a serious incident at a nuclear power plant. Field activities of this element will be coordinated by the Governor's Authorized Representative (GAR). The Nebraska State Patrol communications

van and other appropriate state agency liaison personnel, to include a Public Information Officer, will be located near this facility. Radio communications will be maintained with the State EOC and the plant Emergency Operating Facility (EOF). The State Field Command Post complex will also be able to support short range radio communications for key state agency personnel operating in the vicinity of the plant. The call sign for the Nebraska Emergency Management Agency's Communications Van is "CRUSH". The call sign for the Nebraska State Patrol Communications Van is "Unit 509".

Y. State Radiation Team/Radiological Monitoring Team: Response team dispatched to the site of a radiological incident by HHS Regulation & Licensure. This team or teams may be augmented by radiological monitoring resources, to include aerial monitoring if requested by HHS Regulation & Licensure. At the incident scene, all radiation control capabilities are coordinated by HHS Regulation & Licensure which also furnishes technical guidance and other services to local governments.

III. SITUATION

A. General: The Cooper Nuclear Station is located on the west bank of the Missouri River 11 miles from the city of Auburn. With the exception of the cities of Peru (1,110), and Shubert (237), and the villages of Nemaha (188), and Brownville (148), the area within the 10-mile EPZ is predominantly rural. Two recreational areas, the Brownville Recreation Area and Indian Cave State Park, are located within the EPZ. Brownville Recreation Area is located on the west bank of the Missouri River, approximately two miles north of Cooper Nuclear Station. Indian Cave State Park is located on the west bank of the Missouri River, approximately eight miles south-southeast of Cooper Nuclear Station. The Missouri River, itself, is used for recreational boating and controlled use must be a consideration during planning.

B. Highway Patterns: The major north/south highway, U.S. Highway 75, lies just outside of the EPZ to the west. State Highway 67 is a hard surface road which enters the area from the south and connects Nemaha, Brownville and Peru before joining U.S. Highway 75 to the west of Peru. U.S. Highway 136 crosses the Missouri River at Brownville and proceeds west through Auburn which is located just outside the 10-mile EPZ. Highway 136 provides the only exit from the area across the Missouri River into Missouri. Except for this one crossing point, the Missouri River serves as an effective natural barrier to movement east.

C. Population at Risk: A small section of the northern edge of Richardson County, is located in the plume exposure EPZ (10-mile radius) and the entire county is located within the ingestion exposure pathway (50-mile radius) which involves possible impact resulting from ingestion of contaminated surface water, human food, or animal food. A detailed breakout of the population distribution by sectors and zones within the sub areas is provided in Annex A. There are no care facilities located within the EPZ.

D. Persons Requiring Transportation: An annual survey is conducted by NPPD to determine the number of people who may require transportation assistance within the 10-mile EPZ. Names and addresses are kept current by NPPD, and Richardson County Emergency Management maintains an updated copy of this confidential information.

E. Emergency Response Resources: Three law enforcement agencies, nine fire departments, three rescue squads, and the Falls City Community Medical Center in Falls City provide emergency services on a day-to-day basis.

F. Types of Incidents/Emergencies Affecting Local Government: Under current Nuclear Regulatory Commission (NRC) criteria, four classes of Emergency Action Levels (ECL's) have been established. The classes and their effect on Richardson County are:

1. NOTIFICATION OF UNUSUAL EVENT

   Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response are expected unless further degradation of safety systems occurs. This category will not normally require any action by local government except possible fire or security service.

2. ALERT

   The ALERT class is designed to provide early and prompt notification of minor events which could lead to more serious consequences as the plant staff assesses and responds to the incident. Small releases of radioactivity may occur. These releases will be greater than technical specification limits for normal plant operation, but will not be life endangering. Local officials will be alerted to standby status, and the EOC may be activated. The Readiness Phase of Emergency Response checklists will be accomplished.

3. SITE AREA EMERGENCY

   This class describes conditions where a clear potential for significant releases of radioactivity exists, or these releases are likely, or these releases are occurring. However, in all cases, a core melt situation is not indicated based on current information. Any radiation release could be of sufficient magnitude to warrant consideration of off-site protective measures to minimize potential health hazards due to resultant abnormal levels of airborne or deposited radioactive materials. Early warning of the public, to include activation of the outdoor warning sirens immediately followed by EAS activation and the initial EAS message, and prompt initiation of recommended protective actions are required. Full mobilization of on-site and off-site emergency resources is indicated. Local key officials and the EOC staff will be activated and the EOC will be fully operational. All support personnel will be activated. This class of emergency could result in an in-house shelter mode or an evacuation of those persons living in close proximity to the plant.

4. GENERAL EMERGENCY

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. This implies the threat of serious radiological consequences for public health and safety.

IV. PLANNING FACTORS AND ASSUMPTIONS

A. Planning Factors

1. Extensive safety precautions are incorporated in the design and operation of nuclear power plants. As a result, the nuclear power industry has an excellent safety record and continuous efforts are made to further reduce the chance of an accident. It is considered unlikely that a nuclear power incident seriously affecting public health and safety could occur in Nebraska. However, the probability of an accident causing a significant release of radioactive material, although small, is not zero. Therefore, there is a need for emergency response planning in order to ensure rapid concentration of state and local resources in support of a plant emergency.

2. Although critical areas of nuclear power plants are designed to withstand representative natural hazards such as tornadoes and earthquakes, facility damage could be experienced. Natural disaster planning factors and response procedures are outlined in the Nebraska State Emergency Operations Plan (SEOP), Revised July 28, 2003.

3. A nuclear power plant accident could release radiation by one or more of the following means:

   a. Localized release confined within plant buildings.

   b. One or a series of airborne releases in gaseous or particulate form. These releases from the plant stack/ventilating system could be a single cloud, or "puff"; or they could be a prolonged release, or "plume".

   c. Liquid release which might flow directly into the river or seep through the ground either on or off-site.

   d. Direct radiation having an on-site or an off-site effect.

4. The time lapse between the occurrence of a nuclear power plant accident and the arrival of a radioactive cloud at an off-site area downwind is a critical element in emergency response planning. It is also extremely difficult to provide specific guidance due to many variables such as type of accident, radioactive materials involved, prevailing weather, etc. In the most severe accident case under adverse weather conditions considered by the Reactor

Safety Study (NUREG 75/014, October 1975) it was indicated that major releases may begin in the range of one-half hour to as much as 30 hours after an initiating event. The duration of releases could range from one-half hour to several days with the major portion of the releases occurring within the first day.

B. Assumptions

Emergency Protective Action could be required under the following conditions:

1. There will be little or no warning of the need to in-house shelter or evacuate.

2. The decision to in-house shelter or evacuate could occur day or night and there would be little control over the start time.

3. Because evacuation will not be staged or stretched out, there will be maximum traffic congestion. Voluntary evacuation will not have occurred.

4. There would not normally be time to obtain state agency support. Local government resources will be severely stressed.

5. Evacuees will have little preparation time and will require maximum support in reception areas, particularly in the areas of food, bedding and clothes.

6. Reception areas may not be fully set up to handle the evacuees.

7. The relocation, safety and well-being of those persons identified as having special needs, (handicapped, impaired, elderly), could reasonably be assured.

C. Voluntary Evacuation could occur after the public has been advised of a potential problem or danger, even though the situation does not warrant an official evacuation.

D. Detailed protective action planning will consider the 10-mile EPZ. Selection of actual areas for in-house shelter or evacuation will be based on the conditions present at the decision time. Plans should be flexible in order to adjust to selection of any combination of sectors and zones for in-house shelter or evacuation.

E. Precautionary Protective Actions could be initiated by local government officials and/or upon the recommendation of the ER Manager, HHS Regulation & Licensure if an initially safe situation appears to be deteriorating or if potentially hazardous actions are taking place at the nuclear plant. Under these conditions:

1. In-house shelter or evacuation will be carefully controlled especially since the start time will be selected for best conditions.

2. Supplemental manpower resources will be in place.

3. Reception areas and shelters will be prepared to receive evacuees.

4. Traffic and area access control points will be established and any evacuation staged may allow for staggered departure times thereby reducing traffic congestion.

5. Evacuees and shelters would be better prepared and could take food, bedding, ample clothing and other supplies.

F. Schools in the 10-mile EPZ: There are no schools within the 10-mile EPZ in Richardson County.

G. Designated evacuation routes utilize only hard surface all-weather roads. Movement planning factors will be 1,000 cars per hour per lane of traffic with movement rate of 30 miles per hour. For planning purposes, 2.70 persons per vehicle will be used (1990 Census Data and the Nebraska Statistical Handbook, 1990-1991 for persons in households with vehicles). State and federal highways used receive priority snow removal by the Department of Roads and may, therefore, be expected to be open at all times. County roads in the area are mainly graveled and the road nets are sufficiently developed that alternate routes will be developed if temporary closure is experienced. School bus routes which receive county priority clearance will also support area evacuation.

H. Radiological monitoring and recording of estimates of individual radiological exposure, and decontamination will be accomplished as indicated in Annex F, and as directed by HHS Regulation & Licensure.

I. Timely and accurate information will be provided by plant authorities to local, state and federal officials and agencies.

J. Certain state and federal agencies will become available to both assist and advise local government shortly after an emergency situation having off-site consequences develops. For a listing of state agency support available, see Nebraska Radiological Emergency Response Plan for Nuclear Power Plant Incidents, dated October 10, 2003. Federal assistance also may be made available under the Federal Radiological Emergency Response Plan (FRERP) for peacetime radiological emergencies. The State EOC will coordinate all support provided. It is important to note that local governments must be prepared to function without state assistance, with actions taken based solely on information or recommendations received from the plant.

V. RESPONSIBILITIES

A. The primary responsibility for the safety and welfare of the citizens of Richardson County subject to consequences from an incident at Cooper Nuclear Station rests with the respective local governments. To fulfill this responsibility the various local governments must individually and, where possible, jointly implement plans to

ensure proper protective actions are taken in a timely manner and to provide safety and care and effect recovery of those citizens affected.

B. This plan has been broken into seven functional areas of responsibility which define the tasks that must be accomplished to ensure public safety and welfare. Many of the tasks are those normally accomplished on a day-to-day basis, however, some are unique to this situation and require special emphasis. Primary and supporting responsibilities have been assigned as shown in the Functional Responsibility Chart in Attachment 1. Detailed tasks are covered in the annexes. In general, the functional areas cover:

1. Direction and Control: This function is fulfilled by the Executive Group of the affected political subdivisions utilizing the expertise of an Emergency Operating Center (EOC) staff. By Statute, the conduct of all emergency operations and protective actions in Richardson County is the responsibility of the Chair of the County Board, and, in their respective political subdivisions, the responsibility of the Village Chair of Shubert. These Executives, as required, shall, along with the County Emergency Management Director, constitute the Executive Group which will be located with the Emergency Operations Staff in the Richardson County Courthouse.

2. Communications and Warning: The Communications Officer will be responsible for establishing and maintaining adequate communications with all agencies involved. Emergency communications with state and local governments within the Plume EPZ are tested monthly. Communications with federal emergency response organizations and States within the ingestion pathway EPZ are tested annually. Periodic communications drills include the aspects of understanding message content. The siren system for both Nemaha and Richardson Counties will be activated from the Nemaha County Sheriff's Office. It is understood that an effective public response to an emergency notification and warning is a function of the system design, adequate public education, and environmental circumstances at the occurrence of the initiation of the notification. Since environmental circumstances such as time of day and meteorological conditions are beyond reasonable human control, no totally accurate evaluation of the time span required for notifying and providing prompt instructions to the public within the plume EPZ is possible. However, under normal conditions such as good weather and daylight hours, initial notification and warning will be disseminated within 15 minutes to essentially 100% of the population within the 10-mile EPZ. The Emergency Manager will also ensure that such other procedures as are necessary are established for effective and timely warning of the public.

3. Law Enforcement and Traffic Control: The County Sheriff and Police Chiefs of incorporated communities are responsible for all law enforcement, traffic control, and security functions within their respective jurisdictions. The County Sheriff will be the Law Enforcement Coordinator for Richardson County.

4. Fire and Rescue: The Emergency Management Director and Sheriff will coordinate with the Richardson County Sheriff's Dispatch for fire control, fire watch, rescue activities, and mutual aid through the Richardson County portion of the plume EPZ.

5. Public Information: The Public Information Officer is responsible for keeping the public advised of the emergency situation. The PIO plays an important role through coordination with the news media in advising the public of proper protective actions to take. The PIO will ensure that hazard areas are described to the public using locally known landmarks. All public information activity will be coordinated through the JIC and State EOC when activated.

6. Health and Medical: The Richardson County Sheriff functions as the County Health Officer. Under this plan he will be assisted by a medical officer, and as necessary, by other qualified persons, in the evaluation of health, sanitation, medical problems, and coordination with affected health care centers, and by the locally assigned Radiological Officer (RO) for coordination of radiological monitoring.

7. Radiological Monitoring: Radiological monitoring is the prime responsibility of the Cooper Nuclear Station and HHS Regulation & Licensure personnel. The County Emergency Management Director is responsible for assuring a pool of trained radiological monitors for duty at the Reception Center when needed. The Radiological Officer (RO) is responsible for the coordination of local monitoring. The Nebraska RERP has identified additional support personnel for HHS, if technical assistance is requested for the Decontamination Station, through the State EOC. See Nebraska RERP, Annex A, IV.E.

8. Reception & Care: The Reception & Care Coordinator is responsible for coordinating public welfare actions and early coordination with the American Red Cross is essential.

9. Agriculture Extension Office: See State Plan Basic, Paragraph V.L. for guidance concerning coordination necessary to protect the public from radiation that could be acquired from the food chain. Emergency agricultural support operations in the Plume and Ingestion EPZs will be conducted by state and local agricultural organizations acting in conjunction with HHS Regulation & Licensure. Once agricultural protective actions are recommended by HHS Regulation & Licensure, the USDA State Food and Agriculture Council (FAC) at the State EOC will inform the local FAC and affected farmers/producers will be advised. Field contacts will be made by the County Extension Agent, a member of the FAC. The Emergency Management Director will be advised.

10. Richardson County Emergency Management: The Richardson County Emergency Management Director is responsible for equating all actions within his region. During an incident at the Cooper Nuclear Station, his initial responsibilities will be dictated by the incident and assignment will be necessity oriented.

VI. CONCEPT OF OPERATIONS:

A. Notification: In the event of an emergency situation affecting the Cooper Nuclear Station, local governments will be notified through currently established notification channels (See Annex B).

1. Normal Alerting: In the event of a problem developing at the Cooper Nuclear Station the initial notification of government will be by station personnel using dedicated (automatic ring-down) telephone to the Nemaha County Dispatcher in Auburn and the Nebraska State Patrol (NSP) in Lincoln. The NSP will alert essential state agencies and affected local governments. The NSP will alert NEMA and any other altering will be conducted by:

   a. Primary — Radio Communications, Sheriff/NSP Net (39.9 radio communications).

   b. Alternate — Public Service Telephone

   c. Back up — NAWAS to Richardson County Warning Point and then by 39.9 radio communications to Nemaha County

2. Follow-up Notification: The initial alerting will be followed by a telephone call from the Nebraska Emergency Management Agency to the Richardson County Sheriff's Office, or the Richardson County EOC, if operational.

3. Emergency Alerting: In the event of an emergency situation at the plant which would require the immediate sheltering or evacuation of citizens, the Nemaha County Sheriff's Office would be notified directly by plant personnel using the dedicated service telephone. In turn, the Nemaha County Sheriff's Office would notify the Richardson County Sheriff's Office. In such an event, plant authorities will also recommend activation of the outdoor warning system. Early siren and EAS activation will be the most immediate action required and should be accomplished within a timely manner of the SITE AREA EMERGENCY or GENERAL EMERGENCY notification.

B. Alerting: On receipt of notification of an incident at the power plant, the dispatcher on duty will take action to notify key county officials (Annex A, Attachment 2). These key officials should assemble at the Emergency Operating Center and be prepared to evaluate information, effect coordination, and make protective action decisions.

C. Coordination: Vital information will be forwarded to the Richardson County EOC by the Nebraska Emergency Management Agency via public service telephone, or subsequent to the deployment and establishment of a State Field Command Post, via UHF or National Guard radio (38.8 MHz). Dependent on the situation, local government may send a key official to the Emergency Operations Facility for more effective coordination. All actions undertaken or contemplated should be coordinated with the Nebraska Emergency Management Agency and HHS Regulation & Licensure.

D. Protective Action Decisions: HHS Regulation & Licensure has the basic responsibility for assessing the radiological health hazard, and will in most cases, determine and recommend to the Governor's Authorized Representative (GAR) the primary protective actions which should be taken. Detailed description of HHS Regulation & Licensure responsibilities are contained in Annex A of the State Radiological Emergency Response Plan. Protective actions could vary from in-house shelter to evacuation. When a decision is made, action will begin as soon as possible. Therefore, local preparations for all events should occur immediately after alerting.

E. Protective Action Operations will be broken into three phases for ease of operations.

1. Readiness Phase: This phase contains those tasks necessary for getting ready to take prompt corrective actions. This includes the establishment of radiological monitoring teams to assist in collection of valid hazard information. Communications will be established with all agencies to include the Game and Parks Commission at Indian Cave State Park and the potential reception areas at Nebraska City and Falls City. Essential personnel, including volunteers, will be alerted and required material resources (cots, blankets, food, etc.) located and preposition, if necessary. Plans for movement control and security will be finalized. The Falls City Community Medical Center would be alerted to possible evacuation.

2. Protective Action Phase: If readiness actions have been properly completed, the actual implementation will go smoothly. The key action during this phase will be notifying the public of appropriate actions to take. Notification will be a combination of all available means to ensure all have been advised. This includes sirens, public address systems, radio and TV (including EAS), and direct contact by telephone and door-to-door personal contact if necessary. If the protective action decision is to in-house shelter, residents will be advised to stay indoors or in their basements which would offer more than adequate protection. If the decision is to evacuate a specific area, as determined by the direction and extent of the plume, access to this area must be controlled and actions taken to expedite movement of traffic from the area. Specific tasks to ensure successful implementation of necessary protective actions are detailed in the appropriate annexes.

3. Post Emergency Phase: Actions during this phase are those necessary for the county and its residents to return to normal conditions. After an evacuation, post emergency phase actions will be initiated only after HHS Regulation & Licensure has assessed and evaluated all available hazard information and advised that an evacuated area may be safely reoccupied. It is important to note that post emergency action addressed in this plan is defined as follows:

   a. Relocation - A protective action that is taken during this phase to avoid chronic exposure to gamma radiation from deposited materials in areas

where the projected first year dose exceeds the relocation protective action guide. For further details see Annex G Attachment 6.

b. Reentry - The process of temporary reentry of individuals into a restricted zone under controlled conditions. Once relocation has been implemented, individuals will only be allowed to reenter the established restricted zone on a need only basis. For further details see Annex G, Attachment 6.

c. Return - The process of reoccupying areas cleared for unrestricted residence or use by previously evacuated or relocated population. Individuals will only be allowed to return once areas have been monitored and it has been determined that the area has not been significantly contaminated by the plume. For further details see Annex G, Attachment 6.

VII. PLANNING, TRAINING AND EXERCISING

A. This Emergency Response Plan provides the framework and resources data with which Richardson County will take action to protect their population. However, further planning, training and exercising actions are necessary to make this plan as responsive as possible. The County Emergency Management Director is responsible for coordinating the accomplishment of the following actions:

1. Developing and maintaining current EOC staffing and alerting lists.

2. Maintain the currency of all telephone numbers. These listings will be reviewed and updated quarterly. Federal and state agencies and private organizations will advise local government of telephone and personnel changes as they occur.

3. Review and update "Special Needs" listing, maintaining strict confidentiality of the information contained therein.

4. Developing sufficient radiological monitor team capabilities so that 20% of the total EPZ population, including any identified transients, will be monitored in a 12-hour period and be able to sustain a 24-hour capability over a protracted period of time.

5. Augmenting emergency supply resources such as cots, blankets, and radiological monitoring equipment as necessary and maintaining current resource lists.

6. Maintain updated rosters and expand the current cadre of trained radiological monitors by conducting local monitor training courses, and expanding the cadre of trained Radiological Officers (ROs) by encouraging participation in Nebraska Emergency Management Agency conducted RO courses.

7. Attendance and participation in emergency worker training sessions conducted by the Cooper Nuclear Station staff and disaster preparedness

training courses/radiological emergency response training conducted by the Richardson County Emergency Management Agency. Refer to Directive 9106 for a description of the Nebraska Radiological Training Program conducted by the state.

8. In conjunction with the Nebraska Emergency Management Agency, schedule periodic workshops in the functional area of emergency public information to include procedures and responsibilities of the County Public Information Officer.

9. Conducting annual reviews of this Radiological Emergency Response Plan and modifying it as necessary. Changes will be published and promptly distributed to the agencies listed in the front of this document.

10. Exercising the plan annually in conjunction with Cooper Nuclear Station and State of Nebraska exercises. Exercises will include the testing of radiological instruments and equipment, warning systems, communications and decontamination procedures. Each local government agency involved will participate in critiques of all exercises and will recommend changes to this plan to correct deficiencies noted. Each agency will ensure corrective actions are implemented.

9. All MOUs and LOAs are reviewed and updated annually.

10. The annual dissemination of information to the public is beyond the capabilities of the local government and therefor is coordinated by the state and can be found in the State RERP plan under Annex C.

11. The program to acquaint news media with NREP is beyond the capabilities of the local government and therefore is coordinated by the State and can be found in Annex E of the State RERP.

B. The Richardson County Emergency Management Director is responsible for assisting in coordinating, developing and updating those portions of the local plans relating to their given jurisdiction. The Radiological Programs Manager of the Nebraska Emergency Management Agency has the overall authority and responsibility for Radiological Emergency Response Planning. The Richardson County Emergency Manager receives training from state, federal, and private sources including certification and refresher courses in order to develop an understanding of the standards required and the skills to plan for emergencies. For further information regarding training, refer to the Nebraska State Radiological Training Manual for Nuclear Power Plant incidents.

FUNCTIONAL RESPONSIBILTY CHART

	Direction & Control	Communications & Warning	Law Enforcement & Traffic Control	Fire & Rescue	Public Information	Health & Medical	Reception & Care	Radiological Monitoring	Resource Management
Board of Commissioners	(P)	S	S	S	S	S	S		
Emergency Management Director	(P)	S	S	S	S	S	S	S	(P)
Sheriff	S	S	(P)	(P)		(P)	S		S
Chief of Police, Falls City		S	S						
Fire Chief,	S	S	S	(P)			S		
EMS Chief				(P)		(P)			
Communications Officer	S	(P)	S	S		S	S		
Public Information Officer	S				(P)		S		
Radiological Officer	S					S	S	S	
Medical Officer	S					S	S		
Reception & Care Coordinator	S				S	S	(P)		
American Red Cross	S					S	S		
Decontamination Team	S			S		S		(P)	
Richardson County Highway Department			S						

AGREEMENTS/MEMORANDUMS

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32	Nebraska Department of Health and Human Services, Division of Public Health
35	Nebraska Public Power District/Nebraska Emergency Management Agency/Nebraska Game and Parks Commission
42	University of Nebraska Medical Center
48	UNMC Radiation Health Center

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CITY OF FALLS CITY

1820 Towle Street
P. O. Box 158
Falls City, Nebraska 68355
(402) 245-2707

MARTIN R. GIST
CITY ADMINISTRATOR, CLERK/TREASURER

April 1, 1993

Jim Gerweck
Richardson County Emergency Management Agency

RE: Falls City Auditorium - Emergency Evacuation Site

Dear Jim:

This letter is being written to confirm to the Richardson County Emergency Management Agency that the Falls City Auditorium has been designated, in the past County and City Emergency Plans, an evacuation site for individuals who need to be relocated in case of an emergency situation.

The Falls City Auditorium is currently designated as an evacuation site in our current City and County Emergency Plans and shall continue to be so until the Mayor and City Council would change this designation some time in the future.

The Falls City Auditorium has been designated as an evacuation site and can be used for this purpose in case of an emergency.

If there are any further questions, please feel free to contact me at your convenience.

Sincerely,

Martin R. Gist
City Administrator

MRG:slh

cc:
Mayor
City Attorney
City Council
File

Nebraska Public Power District

COOPER NUCLEAR STATION
P.O. BOX 98, BROWNVILLE, NEBRASKA 68321
TELEPHONE (402)825-3811
FAX (402)825-5205

May 19, 1997

Mr. Keith Hayes
Richardson County Courthouse
1700 Stone Street
Falls City, Nebraska 68355

Dear Mr. Hayes:

Subject: Agreement of Emergency Actions to be Taken

The purpose of this letter is to define the actions to be taken by NPPD and your Sheriff's Department concerning equipment and procedures for the Alert and Notification (Siren) System (ANS). This letter will also serve as a non-binding general agreement between Cooper Nuclear Station and the Richardson County Sheriff's Department in respect to the Alert and Notification System.

NPPD considers its responsibilities concerning the ANS to be as follows:

1. Responsible for the fixed sirens: Installation, operability checks, preventive maintenance checks, and repair and replacement (when required).

2. Responsible for the ANS Procedure: Development, distribution, and subsequent revision to the same.

3. Responsible to conduct training on the ANS: Training to be conducted on mutually agreed upon dates and places as necessary.

NPPD understands the actions of the Richardson County Sheriff's Department to be as follows:

1. To be familiar with the ANS procedures and operate the ANS in accordance with such procedures should an emergency occur at Cooper Nuclear Station (CNS).

2. To be available to participate during testing of the ANS per the CNS Alert and Notification System Siren Activation Procedure for County Sheriffs.

3. That if any problems are found with the sirens or procedures that you contact CNS at (402) 825-5253 or (402) 825-5234 and inform them of the problem.

It is understood by NPPD that the Richardson County Sheriff's Department may use the fixed sirens whenever they deem necessary for notification of the public in the event of fires, floods, tornadoes, civil defense, or any other emergency event.

An additional purpose of this letter is to indicate the willingness of the Richardson County Sheriff's Department to support Nebraska Public Power District's Cooper Nuclear Station in accordance with the Richardson County Radiological Emergency Response and Reception Plan for Nuclear Power Plant Incidents.

Two copies of this letter are being transmitted to you. We ask that you sign both copies of the letter in the space provided. Keep one copy for your records and return one copy to NPPD at the enclosed address.

We thank you for your cooperation in this matter. Should there be any questions concerning this letter or any other aspect of the ANS, please contact the Emergency Preparedness Department at Cooper Nuclear Station at (402) 825-5359.

Sincerely,

Terry Brown
Emergency Preparedness Manager

Acknowledged by

Name: [illegible] 5/20/97

Title: Sheriff

5/20/97

April 25, 2005

AGREEMENT
BETWEEN AND AMONG
NEBRASKA PUBLIC POWER DISTRICT,
COOPER NUCLEAR STATION
AND
THE NEBRASKA STATE PATROL
AND
THE NEBRASKA EMERGENCY MANAGEMENT AGENCY

This agreement effective as of April 25, 2005 by and among Nebraska Public Power District, Cooper Nuclear Station (hereinafter CNS), The Nebraska State Patrol (heinafter NSP), and The Nebraska Emergency Management Agency (hereinafter NEMA).

WITNESSETH:

WHEREAS, CNS, the NSP and NEMA have a lawful responsibility to protect the health and safety of the citizens of the CNS Emergency Planning Zone co-existing within the respective jurisdictions of NSP and NEMA, and

WHEREAS, CNS has already established formal emergency notification systems and procedures for timely communication of information regarding nuclear power plant emergencies to NSP and NEMA, and

WHEREAS, the NSP has the capability to contact NEMA on a 24-hour per day basis, and pass on emergency information regarding nuclear power plant emergencies as provided by CNS, and

WHEREAS, NEMA agrees to assist CNS in providing timely and effective notification of an "IMMINENT" or "PROBABLE" Aircraft Threat at CNS to authorities in Atchison County, Missouri and Nemaha and Richardson Counties in Nebraska and also the State Emergency Management Agency in Missouri through the most efficient and effect means available,

NOW, THEREFORE, in order to assure a timely, effective, and adequate notification to authorities in Atchison County, Missouri and Nemaha and Richardson Counties in Nebraska, and also to The State Emergency Management Agency in Missouri of an "IMMINENT" or "PROBABLE" Aircraft Threat to CNS, CNS, NSP, and NEMA agree to the responsibilities as described in this agreement.

I. RESPONSIBILITIES OF CNS

A. Upon notification or discovery of an "Imminent" or "Probable" Aircraft Threat to CNS, CNS agrees to contact NSP in Lincoln, Nebraska, via the CNS State Notification Telephone, and read the NSP one of the following statements as appropriate:

1. "This is Cooper Nuclear Station, Imminent Aircraft Threat, an ALERT, EAL 8.2.5, has been declared."

a. The message will be repeated if requested.

2. "This is Cooper Nuclear Station, Probable Aircraft Threat, a Notification of Unusual Event, EAL 6.1.1, has been declared."

a. The message will be repeated if requested.

B. This is all the information that will be provided. CNS with then hang-up the telephone.

C. CNS will provide additional notifications (follow-up or notification of event termination) via the CNS State Notification Telephone as required per their Emergency Plan and Emergency Plan Implementing Procedures when emergency conditions related to the "Imminent" or "Probable" Aircraft Threat allow such notifications to be completed.

II. RESPONSIBILITIES OF NSP

A. Upon notification from CNS of either an "IMMINENT" or "PROBABLE" Aircraft Threat, NSP agrees to use Appendix A as a communication aid and check the appropriate box. NSP agrees to contact NEMA on a 24-hour per day basis, in the same manner as they would for other emergency notifications they receive from CNS over the State Notification Telephone System and pass on to NEMA the appropriate information that has been checked on Appendix A.

III. RESPONSIBILITIES OF NEMA

A. NEMA agrees to contact, on behalf of CNS, responsible authorities in Atchison County, Missouri and Nemaha and Richardson Counties in Nebraska and also the State Emergency Management Agency in Missouri per Appendix A. These notifications shall be per normal procedures used to notify these agencies of nuclear power plant emergencies or other disasters.

IV. APPENDICIES

A. Appendix A contains the list of agencies that need to be contacted by NEMA on behalf of CNS.

V. CANCELLATION

No other Agreement on this subject exists between these agencies.

VI. WITHDRAWL

The parties may withdraw from this Agreement by providing written notice to all other parties to this Agreement on an annual basis before 1 February of the current year. Said withdrawal shall be effective as of 1 January of the calendar year immediately following said notice.

NEBRASKA PUBLIC POWER DISTRICT,
COOPER NUCLEAR STATION

By: Joe Bednar

Title: Joe Bednar, CNS EP Manager

Date: 4.26.05

NEBRASKA STATE PATROL

By: Tom Nesbitt

Title: Col. Tom Nesbitt, Supt, NE State Patrol

Date: 4/25/05

NEBRASKA
EMERGENCY MANAGEMENT AGENCY

By: Al Berndt

Title: Al Berndt, Assistant Director, NEMA

Date: 26 April 2005

COOPER NUCLEAR STATION
"IMMINENT" or "PROBABLE" AIRCRAFT THREAT NOTIFICATION

CHECK THE BOX BY EITHER
"IMMINENT" OF "PROBABLE"
AS STATED BY THE CNS CALLER

☐ **COOPER NUCLEAR STATION HAS A CONFIRMED "IMMINENT" AIRCRAFT THREAT. AN ALERT, EAL 8.2.5, HAS BEEN DECLARED.**

☐ **COOPER NUCLEAR STATION HAS A CONFIRMED "PROBABLE" AIRCRAFT THREAT. A NOTIFICATION OF UNUSUAL EVENT, EAL 6.1.1, HAS BEEN DECLARED.**

COOPER NUCLEAR STATION "IMMINENT" or "PROBABLE" AIRCRAFT THREAT NOTIFICATION

LIST OF AGENCIES TO BE CONTACTED BY NEMA ON BEHALF OF CNS

MISSOURI STATE EMERGENCY MANAGEMENT AGENCY (SEMA):

Timely and effective notification of the IMMINENT or PROBABLE Aircraft Threat at CNS shall be initiated to Missouri SEMA through the normal methods NEMA would use to notify this agency of nuclear power plant emergencies or other disasters.

Notification of MO SEMA through the Missouri State Patrol may be appropriate during backshifts or weekends.

ATCHISON COUNTY, MO. EMERGENCY MANAGEMENT AGENCY:

Timely and effective notification of the IMMINENT or PROBABLE Aircraft Threat at CNS shall be initiated to the Atchison County Emergency Management Agency through the normal methods NEMA would use to notify this agency of nuclear power plant emergencies or other disasters.

Notification of the Atchison County EMA through the Atchison County 911 Emergency Dispatch Center may be appropriate during backshifts or weekends.

NEMAHA COUNTY, NE. EMERGENCY MANAGEMENT AGENCY:

Timely and effective notification of the IMMINENT or PROBABLE Aircraft Threat at CNS shall be initiated to the Nemaha County, NE. Emergency Management Agency through the normal methods NEMA would use to notify this agency of nuclear power plant emergencies or other disasters.

Notification of the Nemaha County EMA through the Nemaha County Law Enforcement Dispatch Center may be appropriate during backshifts or weekends.

RICHARDSON COUNTY, NE. EMERGENCY MANAGEMENT AGENCY:

Timely and effective notification of the IMMINENT or PROBABLE Aircraft Threat at CNS shall be initiated to the Richardson County, NE. Emergency Management Agency through the normal methods NEMA would use to notify this agency of nuclear power plant emergencies or other disasters.

Notification of the Richardson County EMA through the Richardson County Sheriff's Office may be appropriate during backshifts or weekends.

01 February 2005

AGREEMENT

BETWEEN AND AMONG

NEBRASKA EMERGENCY MANAGEMENT AGENCY

AND

HEALTH AND HUMAN SERVICES REGULATION AND LICENSURE

AND

NEBRASKA PUBLIC POWER DISTRICT

AND

OMAHA PUBLIC POWER DISTRICT

This agreement effective as of 01 February 2005 by and among Nebraska Emergency Management Agency (hereinafter NEMA), Health and Human Services Regulation and Licensure (hereinafter HHS R&L), Nebraska Public Power District (hereinafter NPPD), and Omaha Public Power District (hereinafter OPPD).

WITNESSETH:

WHEREAS, NPPD and OPPD (hereinafter the "Utilities" or individually, the utility) own and operate Cooper Nuclear Station and Fort Calhoun Station, respectively, both of which are nuclear power plants, and

WHEREAS, pursuant to the Code of Federal Regulations and the laws of the State of Nebraska, each nuclear power station is required to have in effect a plan for radiological emergency response to nuclear power plant incidents, and

WHEREAS, the Nebraska Radiological Emergency Response Plan (RERP) for nuclear power plant incidents (the Nebraska State Plan) has been established and requires that NEMA and HHS R&L perform certain emergency response functions, and

WHEREAS, the Utilities desire to assist in maintaining a high level of readiness by NEMA and HHS R&L to respond to nuclear power plant incidents, pursuant to the State Plan, and through the temporary furnishing of personnel and equipment during the performance of emergency response functions.

NOW, THEREFORE, in order to assure adequate and timely preparation for and response to both actual and simulated emergencies at the Cooper Nuclear Station and the Fort Calhoun Station, NEMA, HHS R&L, NPPD and OPPD agree to the responsibilities as described in this Agreement.

I. RESPONSIBILITIES OF THE UTILITIES

The **non-impacted utility** (the utility not conducting the drill/exercise or in a classified emergency) agrees to provide the following support to HHS R&L during radiological drills and classified emergencies:

A. Two (2) Off-site qualified radiological monitoring personnel to participate with HHS R&L personnel as mutually agreed upon based on the drill and exercise schedule of the impacted utility and annual activities of the non-impacted utility. The non-impacted utility must participate in at least one drill and exercise of the impacted utility per calendar year.

B. During real emergencies, a minimum of two (2) personnel per shift will be provided by the non-impacted utility for continuous 24-hour coverage for the event.

C. Personnel shall attend joint training drills required for proficiency as determined by the Manager, HHS R&L and the appropriate Utility Representative.

The cooperative effort will include obtaining particulate, iodine, and smear samples, analyzing those samples for activity and particulate/iodine concentrations, performing radiation monitoring, performing communications to include data transmission, and location of predetermined monitoring points

II. RESPONSIBILITIES OF HHS R&L

The HHS R&L agrees to provide the following support during drills and emergencies at the impacted utility:

A. Off-site radiation monitoring with fully qualified and equipped personnel to participate in drills and exercises (one each per year per utility), and classified emergencies.

B. Appropriate training of radiological monitoring personnel following the Nebraska Radiological Emergency Response Plan and procedures as deemed necessary by the Manager, HHS R&L.

C. Appropriate vehicles for use by the Joint HHS R&L and Utility Radiological Monitoring Teams. HHS R&L will be the Lead Agency on the Joint Radiological Monitoring Teams.

III. OPERATION OF THE HHS R&L VEHICLE

The HHS R&L Agency Director shall authorize Utility personnel to operate the HHS R&L Agency vehicles in the performance of Joint Radiological Monitoring Team duties during drills, exercises and real emergencies. It is understood that operation of HHS R&L vehicles by Utility employees will be an infrequent event

and thus the completion of the State Defensive Driving Course is not required. It is further understood by HHS R&L and the Utilities that should there be an accident involving a HHS R&L vehicle while being operated by a Utility employee of either Utility that:

A. HHS R&L is responsible for the $250.00 deductible and any other costs not covered by insurance, but attributable to the Utility employee's operation of the vehicle.

B. The Utilities agree that if the vehicle is damaged or destroyed due to the negligent operation of the vehicle by one of their employees, they will be responsible for any costs not covered by the State's insurance.

C. If there is an injury and the State is at fault, the Utility employee will not be covered by the State's workers' compensation coverage, but must rely on the Utilities' workers compensation coverage.

IV. RESPONSIBILITIES OF NEMA

The Nebraska Adjutant General and the Nebraska Emergency Management Director have been designated by the Governor to act as the State Disaster Coordinator and as a result, functions as the Governor's Authorized Representative during nuclear power plant incidents. Under the direction of the Nebraska Emergency Management Director, NEMA has the following responsibilities:

A. Coordinate State agency disaster response in support of local governments.

B. Implement programs for disaster prevention, preparation, response, and recovery.

C. Cooperate with all private or volunteer organizations having disaster support capabilities.

D. Coordinate with appropriate Federal agencies.

E. Conduct tests, drills and exercises.

F. Assist local governments in emergency planning activities.

G. Coordinate other disaster operations support functions to include provisions to insure continuity of resources.

IV. CANCELLATION

This Agreement supercedes the agreement that became effective on January 1, 1986.

V. WITHDRAWL

The parties may be amended or modified at any time by mutual consent of the parties hereto. This Agreement my be terminated at any time by mutual consent of the parties or terminated by any party upon giving 120 days advance written notice to all other parties involved.

NEBRASKA EMERGENCY MANAGEMENT AGENCY

By: Roger P. Lempke

Title: Adjutant General & NEMA Director

Date: 10 January 2005

HEALTH AND HUMAN SERVICES REGULATION AND LICENSURE

By:

Title: HHS Regulation and Licensure Director

Date: January 18, 2005

NEBRASKA PUBLIC POWER DISTRICT

By: Joe Burbach

Title: EP Manager

Date: 2/22/05

OMAHA PUBLIC POWER DISTRICT

By:

Title: Mngr. Security & EP

Date: 4/28/05

STATE OF NEBRASKA

Dave Heineman
Governor

Nebraska Emergency Management Agency
Timothy J. Kadavy
Director
1300 Military Road
Lincoln, Nebraska 68508-1090
Phone (402) 309-7210

July 15, 2009

COOPERATIVE USE AGREEMENT

BETWEEN THE

NEBRASKA DEPARTMENT OF HEALTH AND HUMAN SERVICES, DIVISION OF PUBLIC HEALTH

AND THE

NEBRASKA EMERGENCY MANAGEMENT AGENCY

This document, as required by the Federal Communications Commission (FCC) Regulation 90.179, serves as an Agreement between Nebraska Department of Health and Human Services, Division of Public Health (hereinafter DHHS, DPH) and the Nebraska Emergency Management Agency (hereinafter NEMA) for cooperative use of the NEMA Ultra High Frequency (UHF) System on 458.725 – 453.725 MHz.

NEMA RESPONSIBILITIES

1. NEMA is the licensee of this system.

2. Operation on this system shall be under the direction and control of the licensee at all times.

3. NEMA will perform station identification at all times when operational during an exercise or incident.

4. NEMA will notify the DHHS, DPH of any FCC Rule changes which may affect operations on the UHF system.

5. NEMA will hand receipt to the DHHS, DPH additional Hand-held Radio(s) equipped for repeater and repeater talk-around operation as needed. The radio(s) will remain the property of the NEMA, but be in the possession of the DHHS, DPH.

6. NEMA will provide guidance in the proper procedures for use of the UHF system. Short training sessions, if needed, will be arranged for the DHHS, DPH personnel assigned to used the UHF system

7. NEMA accepts no liability for improper or illegal use of the system by DHHS, DHP personnel.

AUTHORIZATION

1. NEMA as the licensee authorizes DHHS, DPH to use the frequency during pre-coordinated activities such as operations or exercises involving both DHHS, DPH and NEMA. No other operation is intended or implied.

2. NEMA authorizes DHHS, DPH to operate on 38.8 MHz under the NEMA direction and control should the UHF System suffer equipment failure.

3. Short tests to ensure operational capability are also permitted with prior approval.

DHHS, DPH RESPONSIBILITIES

DHHS, DPH shall:

1. Observe FCC Rules and Regulations at all times.

2. Ensure that all DHHS, DPH personnel follow Part 90 dealing with Private Land Mobile Radio Services.

3. Be responsible for any breech of rules or regulations which may result in the termination of this agreement.

4. Be responsible for the security of radio(s) issued by NEMA.

5. Arrange for any maintenance required to maintain radio(s) in good working order.

6. Bear the costs incurred from loss of, damage to, or maintenance of the Radio(s). Per FCC Regulations, no other financial arrangements are included in this agreement.

7. Provide the NEMA with a complete list of personnel authorized by the DHHS, DPH to operate the system. Updated need only be provided upon change of personnel authorized to use the system.

REVIEW AND REVISION

The term of this Cooperative Agreement shall be from the date of the last signature below and will remain in effect unless modified. This Agreement will be reviewed and revised as may be required and desirable. Either Agency will have the right to terminate this Agreement at any time by written notice to the other agency.

APPROVED:

Joann Schaefer, Director
Nebraska Department Health and Human Services, Division of Public Health

8/17/09
Date

Al Berndt, Assistant Director
Nebraska Emergency Management Agency

16 July 2009
Date

18-April-2011

AGREEMENT

BETWEEN AND AMONG

NEBRASKA EMERGENCY MANAGEMENT AGENCY

AND

NEBRASKA GAME AND PARKS COMMISSION

AND

NEBRASKA PUBLIC POWER DISTRICT

AND

OMAHA PUBLIC POWER DISTRICT

This agreement effective as of 18-April-2011 by and among Nebraska Emergency Management Agency (hereinafter NEMA), Nebraska Game and Parks Commission (hereinafter NGPC), Nebraska Public Power District (hereinafter NPPD), and Omaha Public Power District (hereinafter OPPD).

This Memorandum of Agreement describes the relationship and supporting activities of the agencies concerned that are necessary to accomplish the emergency response functions included in the Nebraska Radiological Emergency Response Plan for Nuclear Power Station Incidents.

WITNESSETH:

WHEREAS, NPPD and OPPD own and operate Cooper Nuclear Station and Fort Calhoun Station, respectively, both of which are nuclear power plants, and

WHEREAS, pursuant to the Code of Federal Regulations and the laws of the State of Nebraska, each nuclear power station is required to have in effect a plan for radiological emergency response to nuclear power plant incidents, and

WHEREAS, the Nebraska Radiological Emergency Response Plan (RERP) for nuclear power plant incidents (the Nebraska State Plan) has been established and requires that NEMA and NGPC perform certain emergency response functions, and

WHEREAS, the Utilities desire to assist in maintaining a high level of readiness by NEMA and NGPC to respond to nuclear power plant incidents, pursuant to the State Plan, and

through the temporary furnishing of personnel and equipment during the performance of emergency response functions.

NOW, THEREFORE, in order to assure adequate and timely preparation for and response to both actual and simulated emergencies at the Cooper Nuclear Station and the Fort Calhoun Station, NEMA, NGPC, NPPD and OPPD agree to the responsibilities as described in this Agreement.

I. RESPONSIBILITIES OF THE NEMA

A. The NEMA is responsible to the Governor for management and coordination of State disaster response as outlined in the Nebraska Emergency Management Act as amended (RRS 81 – 829.36 to 81 – 829.73).

B. As outlined in the Nebraska Emergency Management Act as amended (RRS 81 – 829.36 to 81 – 829.73), the Nebraska Adjutant General/Nebraska Emergency Management Director has been designated by the Governor to act as the State Disaster Coordinator and as a result, functions as the Governor's Authorized Representative during nuclear power station incidents. Under the direction of the Nebraska Emergency Management Director, NEMA has the following responsibilities which include but are not limited to:

1. Coordinate State agency disaster response in support of local governments.

2. Implement programs for disaster prevention, preparation, response, and recovery.

3. Coordinate with appropriate Federal agencies.

4. Conduct tests, drills and exercises.

II. RESPONSIBILITIES OF NGPC

The NGPC is responsible for the coordination of all disaster operations involving State owned parks, recreation, and wildlife areas. During state emergency operations, the Game and Parks Commission also provides:

A. Specialized manpower

B. Equipment, and

C. Field radio communications support as required

III. RESPONSIBILITIES OF NPPD

A. The NPPD is responsible for the operation, emergency preparedness, and emergency response for the Cooper Nuclear Station located on the Missouri River about 3 miles southeast of Brownville, NE. This includes:

1. Initial off-site notifications

2. Timely follow-up information provided to off-site authorities

B. To assist in this process, NPPD has established the administrative and physical means for notifying and providing prompt information to the public within the plume emergency planning zone.

IV. RESPONSIBILITIES OF OPPD

A. The OPPD is responsible for the operation, emergency preparedness, and emergency response for the Fort Calhoun Nuclear Station located on the Missouri River about 3 miles south of Blair, NE. This includes:

1. Initial off-site notifications

2. Timely follow-up information to off-site authorities

B. To assist in this process, OPPD has established the administrative and physical means for notifying and providing prompt information to the public within the plume emergency planning zone.

V. PROCEDURES. In the event of a the declaration of an ALERT, SITE AREA, or GENERAL emergency classification level at the Cooper or Fort Calhoun nuclear power station, the following procedures will be accomplished:

A. The NEMA will:

1. Activate the Nebraska State Operations Center (SEOC).

2. Accomplish agency notifications to include the NGPC.

3. Coordinate with the U. S. Coast Guard for the closure of the Missouri River along specified portions for the Cooper and the Fort Calhoun nuclear power station at the SITE AREA and GENERAL emergency

classifications and consider closure action during the ALERT classification if marine spectator problems are encountered.

4. Assemble and prepare to dispatch a Field Liaison Team to the affected nuclear station's Emergency Operations Facility (EOF). The team may be dispatched during the ALERT, but will definitely be dispatched at the declaration of a SITE AREA emergency classification.

5. Coordinate state response to the incident to include initiation of protective actions if deemed necessary and/or appropriate with local agencies and other state agencies.

6. Coordinate ingestion phase emergency preparedness measures with local agencies, other state agencies, federal agencies, the NPPD and OPPD.

7. Coordinate any additional efforts for recovery after the ingestion phase emergency with local agencies, other state agencies, federal agencies, the NPPD and the OPPD.

B. The NGPC will:

1. Send representatives to the SEOC to provide NGPC coordination with other state agencies.

2. Accomplish emergency notifications, provide follow-up information and maintain contact with:

   a. The Superintendent of the Indian Cave State Park for a Cooper Nuclear Station incident.

   b. The Superintendent of the Fort Atkinson State Historical Park for a Fort Calhoun Nuclear Station incident.

3. Assist in the conduct of emergency operations at:

   a. Indian Cave State Park for the Cooper Nuclear Station incident.

   b. Fort Atkinson State Historical Park for a Fort Calhoun Nuclear Station incident.

4. Coordinate with the Nebraska State Patrol, local sheriffs and other emergency services for additional support required for operations at the:

a. Indian Cave State for a Cooper Nuclear Station incident.

b. Fort Atkinson State Historical Park for a Fort Calhoun Nuclear Station incident.

C. The NPPD will:

1. Activate the Technical Support Center (TSC) at the Cooper Nuclear Station and the Cooper Nuclear Station's Emergency Operations Facility (EOF) in Auburn, NE.

2. Notify State/local authorities, including NEMA, of the appropriate emergency classification level.

3. Perform a preliminary assessment of the off-site consequences of a specific emergency classification level which may involve Indian Cave State Park.

4. Recommend protective actions as appropriate to the NEMA.

5. As necessary, deploy field monitoring teams from the Cooper Nuclear Station as emergency conditions warrant for initial off-site monitoring at Indian Cave State Park prior to the arrival of state monitoring teams.

6. Assist NGPC in the maintenance of a prompt notification system. This includes, but is not limited to the revision and updating of the Indian Cave State Park.

D. The OPPD will:

1. Activate the Technical Support Center (TSC) at the Fort Calhoun Nuclear Station and the Fort Calhoun Nuclear Station's Emergency Operations Facility (EOF) in Omaha, NE.

2. Notify State/local authorities, including NEMA, of the appropriate emergency classification level.

3. Perform a preliminary assessment of the off-site consequences of a specific emergency classification level which may involve the Fort Atkinson State Historical Park.

4. Recommend protective actions as appropriate to the NEMA.

5. As necessary, deploy field monitoring teams from the Fort Calhoun Nuclear Station as emergency conditions warrant for initial off-site monitoring at the Fort Atkinson Historical State Park prior to the arrival of state monitoring teams.

6. Assist NGPC in the maintenance of a prompt notification system. This includes, but is not limited to the revision and updating of the Fort Atkinson Historical Park information brochure.

VI. CANCELLATION

This Agreement supercedes the Memorandum of Understanding between the NGPC, NPPD, and the NEMA signed during July 1997 and the Memorandum of Understand between NGPC and the NEMA signed during Dec 1997 and January 1998.

VII. WITHDRAWL

The terms of this Memorandum shall be from the date of signature and will remain in effect unless modified. The Memorandum will be reviewed and revised as may be required and desirable.

NEBRASKA EMERGENCY MANAGEMENT AGENCY

By: _____

Title: Assistant Director

Date: 24 May 2011

NEBRASKA GAME AND PARKS COMMISSION

By: Rex Amack

Title: Director

Date: May 17, 2011

NEBRASKA PUBLIC POWER DISTRICT

By: _____

Title: Emergency Preparedness Manager

Date: 6/15/2011

OMAHA PUBLIC POWER DISTRICT

By: Steve Gehrs

Title: Manager Emergency Planning

Date: 6/2/11

AGREEMENT BETWEEN THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA, GOVERNING BODY FOR THE UNIVERSITY OF NEBRASKA MEDICAL CENTER AND OMAHA PUBLIC POWER DISTRICT AND NEBRASKA PUBLIC POWER DISTRICT

This agreement is made and entered into on behalf of the Board of Regents of the University of Nebraska, governing body for the University of Nebraska Medical Center, an educational institution organized under the laws of the State of Nebraska (UNMC), Omaha Public Power District (OPPD), and Nebraska Public Power District (NPPD). The intent of this agreement is to update and redefine the relationship between the parties with respect to the Regional Radiation Health Center (RHC) established at the UNMC. The RHC's duties are defined as: 1) employment of professional medical and allied health personnel for the diagnosis and treatment of radiation casualties; 2) acquisition of appropriate instrumentation and equipment to support the unique aspects of diagnosis and treatment of radiation injury; 3) development of specialized patient care facilities for initial receiving, evaluation, decontamination, and emergency treatment of radiation casualties; 4) development of specialized patient care facilities for long-term inpatient management of radiation injury; and 5) development of appropriate support facilities to assist in the comprehensive management of radiation injury. Any of the facilities and services (1 to 5 above) may be applied to the care and treatment of patients other than radiation casualties whenever not being fully utilized for radiation casualties.

WHEREAS Legislative Bill 1405 adopted by the 1972 Nebraska Legislature created the Regional RHC to be developed and supervised by the UNMC; and

WHEREAS Omaha Public Power District (OPPD) and Nebraska Public Power District (NPPD) have been members of the Radiation Health Center Advisory Committee from the initial establishment of the RHC, and initially provided fiscal support in the creation of the RHC; and

WHEREAS bylaws were established by the participants in the Advisory Committee including UNMC, OPPD, and NPPD, and these bylaws shall continue to govern the updated agreement between the afore-stated members; and

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

Article I: Facilities and Service to be available and operational for performance of evaluation and management of radiation casualties.

The RHC, UNMC shall furnish all necessary personnel, instruments, equipment, and facilities to evaluate and manage radiation incidents or accidents involving individuals exposed to or contaminated externally and/or internally with radioactive materials in keeping with the legislative mandate establishing the RHC. These facilities will be operationally capable at all times and in order to insure this operational capability will be integrated to as great a degree as possible with the ongoing routine medical practice at UNMC.

Beyond emergency services provided, NPPD and OPPD shall be responsible for the expenses involved in extended or special care of personnel associated with their operations, at cost at the time of admission to UNMC facilities for similar services.

Emergency services provided shall include, but not be limited to, any support of immediate life-support activities, disposition of radioactively-contaminated material removed from the patient(s), evaluation of extent of hazard to the patient(s) submitted, and a plan or program of treatment of such patient(s).

The services of the RHC and its staff may be made available to users other than NPPD and OPPD, at the discretion of the Director of the RHC. These services will be billed independently per the provisions of Article IV. At no time will the RHC be rendered incapable to respond to a nuclear incident associated with NPPD or OPPD, due to services being provided to another user.

Article II: Period of Performance

This period of performance under this agreement is effective July 1, 1996, pending previous ratification by the Board of the respective members and will be continuously renewable on July 1st of each succeeding year by mutual consent of the parties. The continuously renewable agreement makes specific provision for carry over of funds from year to year from the operation and maintenance of the RHC including, but not limited to, contingency operational funds should an accident of significant proportions impact the resources of the RHC.

Article III: Termination or Withdrawal

Termination or withdrawal by any party from this agreement shall be only upon 90 days advance written notice and shall include reasons for withdrawal. No withdrawal in violation of the provisions of State law shall be permitted.

Article IV: Projected Cost

The total projected cost for the period beginning on July 1, 1996 through June 30, 1997 are itemized on attachment 1, "The Radiation Health Center Budget FY 1996-1997". The costs reflecting personnel, capital equipment investment, facilities operating costs, and contingency resources shall be reviewed annually by the Advisory Committee, and upon recommendation of the Director of the RHC and members of the Advisory Committee may be revised to appropriately maintain the RHC's capability to appropriately fulfill its responsibilities to the Legislative Act. The Director and Staff of the RHC agree to exert their best efforts to accomplish the responsibilities provided in the Legislative Act within the budget cost projection. Should extraordinary events require special considerations, all members of the Advisory Committee shall agree on additional funds beyond those approved at the annual meeting.

The costs of services, materials, extended or special care, or specialized evaluation of personnel or equipment of any authorized user not associated with NPPD or OPPD, will be billed directly to that respective user at reasonable billing rates, as recommended by the Advisory Committee. Funds received for such services will be applied to the RHC operating account and reported by the Director of the RHC at the annual meeting.

No major expenditure shall be made without approval in advance by at least one authorized representative of each participant to this agreement.

No purchase or lease of any item of general purpose equipment, such as office furniture, office furnishings or office equipment, shall be made unless specifically approved by all participants of the RHC Advisory Committee.

No travel costs incurred under this agreement shall be reimbursed from these funds unless associated with participation in actual emergencies or established drills to comply with existing regulations. Any such items, if authorized, shall be reimbursed under the guidelines of Federal or State regulations and be separately billed to NPPD, OPPD, or any other authorized user of RHC services, as applicable.

Article V: Payment

All payments made hereunder shall be to the University of Nebraska Medical Center, Sponsored Programs Accounting Office, 600 South 42nd Street, Omaha, Nebraska 68198-5100, ATTN.: Radiation Health Center Account.

Article VI: Accountability and Audit

The accounts of the RHC, as maintained by UNMC, are subject to audit by State of Nebraska agencies, UNMC, NPPD, and OPPD on an annual basis. More frequent audits may be made, as required by governing bodies of each participant. Usual and customary accounting practices shall be observed. Any audit by any party shall provide sufficient time for preparation and availability of records, but in no case shall a time in excess of 30 days be necessary.

Article VII: Governance

The governing body of the RHC shall be as specified in the legislation which established the RHC, and the bylaws of same. Each member of the Advisory Committee is responsible only to his/her organization for the decisions made. Each participating member to this agreement shall have an equal vote in deliberations of the committee.

As provided in the RHC bylaws, the Director of RHC shall be the principal executive officer responsible for the conduct of the duties and responsibilities of the RHC. The Director shall be nominated by the Chairman of the Department of Radiology of the University of Nebraska College of Medicine, and shall be appointed by the Chancellor of the University of Nebraska Medical Center, subject to the approval of the Dean of the College of Medicine, the President of the University and the Board of Regents for the University of Nebraska. He shall be responsible for the day-to-day conduct of activities relating to the functional capability of the RHC and its staff members. He shall make periodic presentations to the Advisory Committee of the RHC to ensure their cognizance of factors which might adversely affect the operational capability of the Center as well as to recommend actions, policies, and/or procedures which will provide a continuing state of readiness to fulfill the responsibilities defined in the Legislative Act.

Article VIII: Reports

The Director of the RHC will report annually to the Advisory Committee regarding the state of the RHC. He will make recommendations where appropriate to ensure the continuing capability of the Center.

RHC shall provide a report of participation in any exercise. In the event of an actual emergency, an after-action report shall be submitted along with a copy of any pertinent medical records associated with the patients involved, with due regard to patient privacy of information.

An annual report of receipts and expenditures shall be provided by UNMC to the Director, RHC, NPPD and OPPD. The format shall be in accordance with accepted accounting methods.

Article IX: Changes

Any changes in the terms of this agreement including changes in scope of responsibility for facilities, services, and/or cost allocation must be made by amendment to this agreement and signed by all participating parties.

Article X: Equipment

Title to equipment purchased under this agreement shall reside with the Board of Regents of the University of Nebraska. Said equipment shall be inventoried within the University of Nebraska Medical Center, College of Medicine, Department of Radiology, and the RHC.

Article XI: General Provisions

The provisions of the Legislative Act establishing the RHC and the bylaws of the RHC shall apply to this agreement and its conduct through the Grants and Contracts Office of UNMC, College of Medicine. This agreement shall be construed under the laws of the State of Nebraska.

The above conditions are acceptable to all parties as evidenced by the signatures of their authorized officials.

David A. Crouse	[signature]	[signature]
Board of Regents of the University of Nebraska	OPPD	NPPD
David A. Crouse, Ph.D. Interim Vice Chancellor for Academic Affairs	W. Gary Gates Vice President	Emergency Preparedness Manager
TITLE	TITLE	TITLE
9/12/97	12-11-97	11/19/97
DATE	DATE	DATE

RENEWAL OF THE AGREEMENT BETWEEN THE BOARD OF REGENTS OF THE UNIVERSITY OF NEBRASKA, GOVERNING BODY FOR THE UNIVERSITY OF NEBRASKA MEDICAL CENTER AND OMAHA PUBLIC POWER DISTRICT AND NEBRASKA PUBLIC POWER DISTRICT

The renewal of this agreement is made and entered into on behalf of the Board of Regents of the University of Nebraska, governing body for the University of Nebraska Medical Center, an educational institution organized under the laws of the State of Nebraska (UNMC), Omaha Public Power District (OPPD), and Nebraska Public Power District (NPPD). The intent of this renewal is to update the relationship between the parties with respect to the Regional Radiation Health Center (RHC) established at the UNMC. The RHC's duties are defined as: 1) employment of professional medical and allied health personnel for the diagnosis and treatment of radiation casualties; 2) acquisition of appropriate instrumentation and equipment to support the unique aspects of diagnosis and treatment of radiation injury; 3) development of specialized patient care facilities for initial receiving, evaluation, decontamination, and emergency treatment of radiation casualties; 4) development of specialized patient care facilities for long-term inpatient management of radiation injury; and 5) development of appropriate support facilities to assist in the comprehensive management of radiation injury. Any of the facilities and services (1 to 5 above) may be applied to the care and treatment of patients other than radiation casualties whenever not being fully utilized for radiation casualties.

The period of performance under this renewal is effective July 1, 2000, pending previous ratification by the Board of the respective members and will be continuously renewable on July 1st of each succeeding year by mutual consent of the parties. The continuously renewable agreement makes specific provision for carry over of funds from year to year from the operation and maintenance of the RHC.

The total projected cost for the period beginning on July 1, 2000 through June 30, 2001 are itemized on attachment 1, "The Radiation Health Center Budget FY 2000-2001". The costs reflecting personnel, capital equipment investment, facilities operating costs, and contingency resources shall be reviewed annually by the Advisory Committee, and upon recommendation of the Director of the RHC and members of the Advisory Committee may be revised to appropriately maintain the RHC's capability to appropriately fulfill its responsibilities to the Legislative Act. The Director and Staff of the RHC agree to exert their best efforts to accomplish the responsibilities provided in the Legislative Act within the budget cost projection. Should extraordinary events require special considerations, all members of the Advisory Committee shall agree on additional funds beyond those approved at the annual meeting.

Board of Regents of the University of Nebraska	OPPD	NPPD
Assoc V.C UNMC	Mgr. Security & EP	Emergency Preparedness Manager, Cooper Nuclear Station
TITLE	TITLE	TITLE
7/26/00	8/11/00	7/24/00
DATE	DATE	DATE

University of Nebraska Medical Center
Nebraska's Health Science Center

Office of Sponsored Programs Administration
Eppley Science Hall 3018
600 South 42nd Street
Box 986810
Omaha, NE 68198-6810
Phone: (402) 559-7456
Fax: (402) 559-7845

August 4, 1997

Terry Brown
NPPD
Cooper Nuclear Station
P. O. Box 98
Brownsville, NE 68321

Owen "Jay" Clayton
OPPD
Supervisor, Emergency Planning
Mail Stop FCS AD-2E
444 South 16th Street Mall
Omaha, NE 68102-2247

RE: Renewal of Contract for Regional Radiation Health Center at UNMC

Dear Mr. Brown and Mr. Clayton:

Enclosed are three signed original copies of the agreement for renewal of the Radiation Health Center at UNMC for the period July 1, 1996 through June 30, 1997. I understand these agreements have been developed by yourselves and officials at UNMC and are acceptable to all parties.

In order to expedite the execution of these documents I have forwarded the signed originals to Terry Brown for processing at NPPD first. The three originals should be signed by the appropriate NPPD official, then all three originals, with the signatures of UNMC and NPPD, should be forwarded to Jay Clayton for signature by the appropriate OPPD official. After the three original copies have been fully executed by OPPD and all parties have signed, I request that Jay Clayton retain one of the fully-executed originals and return one of the original copies to Terry Brown at NPPD and the final original copy to my attention at UNMC.

I appreciate your assistance in this matter. If you have any questions, please feel free to call me.

Sincerely,

Nancy A. Schlesiger
Manager
Sponsored Programs Administration

Enclosures

9 April 2010

MEMORANDUM OF AGREEMENT

BETWEEN AND AMONG THE

ATCHISON COUNTY, MO EMERGENCY MANAGEMENT AGENCY

AND

HARRISON COUNTY, IA EMERGENCY MANAGEMENT AGENCY

AND

NEMAHA COUNTY, NE EMERGENCY MANAGEMENT AGENCY

AND

POTTAWATTAMIE COUNTY EMERGENCY MANAGEMENT AGENCY

AND

RICHARDSON COUNTY EMERGENCY MANAGEMENT AGENCY

AND

WASHINGTON COUNTY EMERGENCY MANAGEMENT AGENCY

AND

IOWA HOMELAND SECURITY AND EMERGENCY MANAGEMENT DIVISION

AND

MISSOURI STATE EMERGENCY MANAGEMENT AGENCY

AND

NEBRASKA EMERGENCY MANAGEMENT AGENCY

AND

KFAB RADIO STATION, OMAHA, NEBRASKA

AND

KFEQ RADIO STATION, ST. JOSEPH, MISSOURI

AND

COOPER NUCLEAR STATION,
NEBRASKA PUBLIC POWER DISTRICT

AND

FORT CALHOUN NUCLEAR STATION
OMAHA PUBLIC POWER DISTRICT

AND
NATIONAL OCEANIC AND ATMOSPHERIC ADMISTRATION
NATIONAL WEATHER SERVICE OFFICE

This agreement is made by and among Atchison County (MO) Emergency Management Agency (hereinafter ACEMA), Harrison County (IA) Emergency Management Agency (hereinafter HCEMA), Nemaha County (NE) Emergency Management Agency (hereinafter NCEMA), Pottawattamie County (IA) Emergency Management Agency (hereinafter PCEMA), Richardson County (NE) Emergency Management Agency (hereinafter RCEMA), Washington County (NE) Emergency Management Agency (hereinafter WCEMA), Iowa Homeland Security and Emergency Management Division (hereinafter HSEMD), Missouri State Emergency Management Agency (hereinafter SEMA), Nebraska Emergency Management Agency (hereinafter NEMA), KFAB 1110 AM Radio Station, Omaha, NE (hereinafter KFAB), KFEQ 680 Radio Station, St. Joseph, MO (hereinafter KFEQ), National Oceanic and Atmospheric Administration National Weather Service (hereinafter NWS), the Cooper Nuclear Station, Nebraska Public Power District (hereinafter NPPD), the Fort Calhoun Nuclear Station, Omaha Public Power District (hereinafter OPPD).

WITNESSETH:

WHEREAS, the HSEMD is responsible to the Governor of Iowa for the management and coordination of State disaster response, and

WHEREAS, the SEMA is responsible to the Governor of Missouri for the management and coordination of State disaster response, and

WHEREAS, the NEMA is responsible to the Governor of Nebraska for the management and coordination of State disaster response, and

WHEREAS, the Nebraska Public Power District owns and contracts with Entergy, Corp. to operate the Cooper Nuclear Station, and

WHEREAS, the Omaha Public Power District owns and operates the Fort Calhoun Nuclear Station, and

WHEREAS, pursuant to the Code of Federal Regulations, the laws of the States of Iowa, Missouri and Nebraska, the ordinances in the counties of Atchison, MO, Harrison and Pottawattamie, IA, Nemaha,

Richardson, and Washington, NE, and the directives and policies of the Omaha and Nebraska Public Power Districts which require that the ACEMA, HCEMA, NCEMA, PCEMA, RCEMA, WCEMA, HSEMD, SEMA, NEMA, NPPD, and OPPD have in effect, plans for radiological emergency response to nuclear power plant incidents, and

WHEREAS, the ACEMA, HCEMA, NCEMA, PCEMA, RCEMA, WCEMA, HSEMD, SEMA and NEMA have a lawful responsibility to protect the health and safety of the citizens of their respective jurisdictions, and

WHEREAS, the ACEMA, HCEMA, NCEMA, PCEMA, RCEMA, WCEMA, HSEMD, SEMA, NEMA, NPPD, and OPPD Radiological Emergency Response Plans (RERPs) for nuclear power plant incidents have been established and require that ACEMA, HCEMA, NCEMA, PCEMA, RCEMA, WCEMA, HLSEM, SEMA, NEMA, NPPD and OPPD perform certain emergency response functions, and

WHEREAS, the NWS Office, Valley, Nebraska, has the capability to activate the Emergency Alert System (EAS) for the alert and notification of the public to radiological incidents simultaneously in the State of Iowa and the State of Nebraska and the counties of Harrison and Pottawattamie in Iowa and Douglas and Washington in Nebraska for a Fort Calhoun Nuclear Station incident and/or the capability to activate the EAS for the alert and notification of the public to radiological incidents simultaneously in the State of Missouri and the State Nebraska, and the counties of Atchison, MO and Nemaha and Richardson in Nebraska, for a Cooper Nuclear Station incident, and

WHEREAS, KFAB has the capability to transmit and retransmit EAS messages, and as a public service to subsequently broadcast Special News Broadcast messages in areas surrounding the Cooper Nuclear Station and/or the Fort Calhoun Nuclear Station, and

WHEREAS, KFEQ has the capability to transmit and retransmit EAS messages, and as a public service to subsequently broadcast Special News Broadcast messages in areas surrounding the Cooper Nuclear Station, and

WHEREAS, NPPD and OPPD have the responsibility for siren maintenance and upkeep within their 10-mile Emergency Planning Zones and the capability and resources to place equipment; to activate the sirens respectively and when applicable in the counties of Atchison in Missouri and Nemaha and Richardson in Nebraska, and in the counties of Harrison in Iowa and Douglas and Washington in Nebraska, and

WHEREAS, ACEMA, HCEMA, KFAB, KFEQ, NCEMA, PCEMA, RCEMA, WCEMA, HSEMD, SEMA, NEMA, NWS, NPPD and OPPD desire to provide a timely and effective alert and notification to the public in Atchison County, Missouri and Nemaha and Richardson Counties, Nebraska and/or to the public in Harrison and Pottawattamie Counties in Iowa, and Douglas and Washington Counties, Nebraska due to a radiological incident at the Cooper or Fort Calhoun Nuclear Power Station through the most efficient and effect means available.

NOW, THEREFORE, in order to assure a timely, effective, and adequate alert and notification to the public who reside or are visiting in Atchison County, Missouri and in Nemaha and Richardson Counties, Nebraska of a radiological incident at the Cooper Nuclear Station, and/or to the public who reside or are visiting in Harrison and Pottawattamie Counties, Iowa and in Douglas and Washington Counties, Nebraska, for a radiological incident at the Fort Calhoun Nuclear Station, ACEMA, HCEMA, KFAB, KFEQ, NCEMA, PCEMA, RCEMA, WCEMA, HSEMD, SEMA, NEMA, NWS, NPPD and OPPD agree to the responsibilities as described in this Agreement.

I. RESPONSIBILITIES OF ACEMA

A. ACEMA agrees to provide courtesy notification to KFEQ 680 AM Radio at the notification of the Emergency Action Level "Alert" that an "Alert" has been declared at the Cooper Nuclear Station.

B. ACEMA agrees to contact the NWS, Valley, Nebraska, at the notification of the Emergency Action Level "Site Area Emergency" and provide the NWS Office, Valley, Nebraska, by telephone (with a number provided by the NWS Office, Valley, Nebraska), with the following:

1. Proper identification of the agency and passwords for authentication purposes. The following passwords will be used:

   a. For Drills and Exercises: (Not depicted here)
   b. For an Actual (real) Event: (Not depicted here)

2. Notification that a "Site Area Emergency" has been declared at the Cooper Nuclear Station.

3. Request that the EAS be activated, and that the prepared EAS message be broadcast.

C. ACEMA agrees to assist in providing training on the proper NWS notification procedures to the Atchison County agency receiving the Cooper Nuclear Station notification of a "Site Area Emergency".

D. ACEMA concurs with the content of the prepared EAS message to be read by the NWS Office, Valley, Nebraska, should the NCEMA have contacted the NWS Office, Valley, Nebraska, first. The NCEMA EAS message includes an alert and notification for the citizens of Atchison County, Missouri.

E. ACEMA also agrees to activate the Alert and Notification System fixed sirens in Atchison County, Missouri, and Nemaha and Richardson Counties, Nebraska.

F. ACEMA further agrees that NCEMA through the Nemaha County Sheriff's Office may activate the Alert and Notification System fixed sirens in Atchison County, Missouri, if they have a faster response time.

II. RESPONSIBILIITIES OF NCEMA

A. NCEMA agrees to contact the NWS Office, Valley, Nebraska, at the notification of the Emergency Action Level "Site Area Emergency" and provide the NWS Office, Valley, Nebraska, by telephone (with a number provided by the NWS Office, Valley, Nebraska), with the following:

1. Proper identification of the agency and passwords for authentication purposes. The following passwords will be used.

   a. For Drills and Exercises: (Not depicted here)
   b. For an actual (real) event: (Not depicted here)

2. Notification that a "Site Area Emergency" has been declared at the Cooper Nuclear Station.

3. Request that the EAS be activated, and that the prepared EAS message be broadcast.

B. NCEMA agrees to assist in providing training on proper NWS notification procedures to the Nemaha County agency receiving the Cooper Nuclear Station notification of a "Site Area Emergency".

C. NCEMA concurs with the content of the prepared EAS message to be read by the NWS Off Valley, Nebraska, should the ACEMA have contacted the NWS Office, Valley, Nebraska, first. The ACEMA EAS message includes an alert and notification for the citizens of Nemaha County, Nebraska, if they have a faster response time.

D. NCEMA also agrees to activate the Alert and Notification System fixed Sirens in Atchison County, Missouri, and Nemaha and Richardson Counties, Nebraska.

E. NCEMA further agrees that ACEMA through the Atchison County 911 may activate the Alert and Notification fixed sirens in Nemaha County, Nebraska, if they have a faster response time.

III. RESPONSIBILITIES OF RCEMA

A. RCEMA concurs with the content of the prepared EAS messages to be read by the NWS when contacted by the ACEMA and/or the NCEMA. The ACEMA and NCEMA EAS messages include an alert and notification for the citizens of Richardson County, Nebraska.

B. RCEMA also concurs that either ACEMA or NCEMA, may activate the Alert and Notification System Fixed Sirens in Richardson County, Nebraska.

IV. RESPONSIBILITIES OF HCEMA

A. HCEMA agrees to provide courtesy notification to KFAB 1110 Radio at the notification of the Emergency Action Level "Alert" that an "Alert" has been declared at the Fort Calhoun Nuclear Station.

B. HCMEA agrees to sound the sirens for the Harrison County EPZ on the Iowa side of the Missouri River at about five minutes after the notification of the Emergency Action Level "Site Area Emergency" (SAE).

C. HCEMA agrees to allow the WCEMA to contact the NWS, Valley, Nebraska, after the notification of the Emergency Action Level "SAE" and provide the NWS Office, Valley, Nebraska, by telephone (with a number provided by the NWS Office, Valley, Nebraska), with the notification that a "Site Area Emergency" has been declared at the Fort Calhoun Nuclear Station and request that the EAS be activated, and at about 10 minutes after notification of a "SAE", the prepared EAS message be broadcast.

D. HCEMA agrees to assist in providing training on the proper NWS notification procedures to the Harrison County agency receiving the Fort Calhoun Nuclear Station notification of a "SAE".

E. HCEMA concurs with the content of the prepared EAS message to be read by the NWS Office, Valley, Nebraska. The prepared EAS message includes an alert and notification for the citizens of Harrison and Pottawattamie Counties in Iowa and Douglas and Washington counties in Nebraska.

V. RESPONSIBILITIES OF PCEMA

A. PCMEA agrees to sound the sirens for the Pottawattamie County EPZ on the Iowa side of the Missouri River at about five minutes after the notification of the Emergency Action Level "Site Area Emergency" (SAE).

B. PCEMA agrees to allow the WCEMA to contact the NWS, Valley, Nebraska, after the notification of the Emergency Action Level "SAE" and provide the NWS Office, Valley, Nebraska, by telephone (with a number provided by the NWS Office, Valley, Nebraska), with the notification that a "Site Area Emergency" has been declared at the Fort Calhoun Nuclear Station and request that the EAS be activated, and at about 10 minutes after notification of a "SAE", the prepared EAS message be broadcast.

C. PCEMA agrees to assist in providing training on the proper NWS notification procedures to the Pottawattamie County agency receiving the Fort Calhoun Nuclear Station notification of a "SAE".

D. PCEMA concurs with the content of the prepared EAS message to be read by the NWS Office, Valley, Nebraska. The prepared EAS message includes an alert and notification for the citizens of Harrison and Pottawattamie Counties, Iowa and Douglas and Washington counties, Nebraska.

VI. RESPONSIBILITIES OF WCEMA

A. WCEMA agrees to sound the sirens for the 10-mile EPZ on the Nebraska side of the Missouri River at about five minutes after the notification of the Emergency Action Level "Site Area Emergency" (SAE).

B. To contact the NWS, Valley, Nebraska, after the notification of the Emergency Action Level "SAE" and provide the NWS Office, Valley, Nebraska, by telephone (with a number provided by the NWS Office, Valley, Nebraska), with the following:

1. Proper identification of the agency and passwords for authentication purposes. The following passwords will be used:

   a. For Drills and Exercises: (Not depicted here)
   b. For an Actual (real) Event: (Not depicted here)

2. Notification that a "Site Area Emergency" has been declared at the Fort Calhoun Nuclear Station.

3. Request that the EAS be activated, and at about 10 minutes after notification of a "SAE", the prepared EAS message be broadcast.

C. WCEMA agrees to assist in providing training on the proper NWS notification procedures to the Washington County agency receiving the Fort Calhoun Nuclear Station notification of a "SAE".

D. WCEMA concurs with the content of the prepared EAS message to be read by the NWS Office, Valley, Nebraska. The prepared EAS message includes an alert and notification for the citizens of Douglas & Washington Counties, Nebraska and Harrison and Pottawattamie Counties, IA.

VII. RESPONSIBILITIES OF KFAB AND KFEQ

KFAB AND KFEQ AM radio stations agree:

A. If not in operation at the declaration of an "Alert" emergency action level by a nuclear power station emergency, to man and prepare to operate their radio stations to be ready to rebroadcast EAS messages and broadcast Special News Broadcast messages.

B. If not already in operation at the notification of a "Site Area Emergency" at a nuclear power station to retransmit or transmit new EAS Messages and Special News Broadcast Messages, be willing and able to perform such operations remotely.

C. To provide the names and alternate phone numbers of employees for a call-down list. KFAB to provide the aforementioned list to HSEMD and NEMA. KFEQ to provide the call-down list to ACEMA and SEMA. The lists will enable HSEMD, NEMA, ACEMA and SEMA to call radio station employees to initiate procedures to transmit new EAS messages and Special News Broadcast messages remotely.

D. If in operation, to remain in operation to rebroadcast or broadcast EAS messages and broadcast Special News Broadcast messages at the declaration of a "SAE" emergency action level by a nuclear power station emergency.

E. Retransmit in a timely manner, on a 24-hour per day basis, any EAS message received from the NWS pertaining to a radiological incident at the Cooper Nuclear Station and/or the Fort Calhoun Nuclear Station.

F. Broadcast in a timely manner, on a 24-hour per day basis, any subsequent Special News Broadcast messages received from the States of Iowa (for KFAB), Missouri (for KFAB and KFEQ) and Nebraska (for KFAB) as appropriate.

G. To have all responsible employees accept annual training pertaining to the broadcast of EAS messages and Special News Broadcast messages offered by members of the HSEMD (for KFAB), SEMA (for KFAB and KFEQ), NEMA for (KFAB), the Cooper Nuclear Station (for KFAB and KFEQ) and Fort Calhoun Nuclear Station (for KFAB).

VIII. RESPONSIBILITIES OF HSEMD

HSEMD concurs with these arrangements and will:

A. Ensure applicable State and County Radiological Emergency Response Plans contain a copy of the Iowa/Nebraska NWS EAS Message (FCNS Message #1), a copy of the Iowa/Nebraska KFAB EAS Message (FCNS Message #2), and a copy of the Iowa/Nebraska Follow-Up Special News Broadcast Message (FCNS Message #3).

B. Ensure that the Counties of Harrison and Pottawattamie in Iowa are trained in the proper procedure to contact KFAB 1110 AM Radio, Omaha, NE, in a timely manner for the broadcast of additional EAS messages and Special News Broadcast messages.

C. Arrange with KFAB 1110 AM Radio, Omaha, Nebraska, for the proper authentication passwords to be used between the HCEMA and KFAB 1110 AM Radio, Omaha, Nebraska, for activation of the EAS.

D. Assist in the annual training offered to the NWS Office, Valley, Nebraska on the EAS message pertaining to radiological incidents at the Fort Calhoun Nuclear Station.

IX. RESPONSIBILITIES OF SEMA

SEMA concurs with these arrangements and will:

A. Ensure applicable State and County Radiological Emergency Response Plans contain a copy of the Atchison County EAS Message.

B. Ensure that the County of Atchison, Missouri is trained in the proper procedure to contact the NWS Office, Valley, Nebraska, in a timely manner for the activation of the EAS containing the EAS message pertaining to a radiological incident at the Cooper Nuclear Station.

C. Arrange with the NWS Office, Valley, Nebraska, for the proper authentication passwords to be used between the ACEMA and the NWS for activation of the EAS.

D. Assist in the annual training offered to the NWS Office, Valley, Nebraska on the EAS message pertaining to radiological incidents at the Cooper Nuclear Station.

X. RESPONSIBILITIES OF NEMA

NEMA concurs with this arrangement and will:

A. Provide courtesy notification to KFAB 1110 Radio at the notification of the Emergency Action Level "Alert" that an "Alert" has been declared at either the Cooper or the Fort Calhoun Nuclear Station.

B. Ensure State and County Radiological Emergency Response Plans contain a copy of the Iowa/Nebraska NWS EAS Message or the Nemaha County NWS EAS Message as applicable.

C. Ensure that the Counties of Nemaha and Washington in Nebraska, are trained in the proper procedure to contact the NWS Office, Valley, Nebraska, in a timely manner for the activation of the EAS containing the EAS message pertaining to a radiological incident at the Cooper Nuclear Station and/or the Fort Calhoun Nuclear Station.

D. Arrange with the NWS Office, Valley, Nebraska, for the proper authentication passwords to be used between the NCEMA and the NWS and between the WCEMA and the NWS for activation of the EAS.

E. Assist in the annual training offered to the NWS Office, Valley, Nebraska, on the EAS message pertaining to radiological incidents at the Cooper Nuclear Station and/or the Fort Calhoun Nuclear Station.

I. RESPONSIBILITIES OF THE NWS

The NWS Office, Valley, Nebraska, will:

A. Activate the Emergency Alert System (EAS) and disseminate the Atchison County NWS EAS message or the Nemaha County NWS EAS message for a radiological incident at the Cooper Nuclear Station in a timely manner, on a 24-hour per day basis, from the NWS Office, Valley, Nebraska, upon proper notification from the ACEMA, in Atchison County, Missouri or the NCEMA, in Nemaha County, Nebraska.

B. Activate the EAS and disseminate the Iowa/Nebraska EAS message for a radiological incident at the Fort Calhoun Nuclear Station in a timely manner, on a 24-hour per day basis, from the NWS Office, Valley, Nebraska upon proper notification from the WCEMA, in Washington County, Nebraska.

C. Notify NEMA, should equipment failure make it impossible to activate the EAS and disseminate the EAS Message. NEMA will notify HSEMD and/or SEMA and each will institute other means of dissemination.

D. As schedules and resources allow, attend annual training on the Atchison County, MO, the Nemaha County, Nebraska and the Iowa/Nebraska NWS EAS Message regarding radiological incidents at the Cooper Nuclear Station or the Fort Calhoun Nuclear Station offered by a team of members from the HSEMD, SEMA, NEMA, Cooper Nuclear Station and Fort Calhoun Nuclear Station.

E. Use agreed upon passwords for authentication purposes for requests by ACEMA and/or NCEMA or WCEMA to activate the EAS at the NWS Office, Valley, Nebraska.

XII. Responsibilities of NPPD

NPPD will:

A. Notify in a timely manner the appropriate authorities within the County of Atchison and the State of Missouri and within the Counties of Nemaha and Richardson and the State of Nebraska.

B. Maintain the capability to activate the sirens within the 10-mile Emergency Planning Zone should the local risk counties for one reason or another be unable to do so. However, it is the responsibility of the ACEMA and NCEMA for activation of the sirens.

C. Provide timely equipment updates and modifications to the Alert and Notification System fixed siren activation system already located in Atchison County, Missouri, and Nemaha County, Nebraska, to allow these counties to activate the Alert and Notification fixed siren system in Atchison County, Missouri, and Nemaha and Richardson Counties, Nebraska.

D. Assist in annual training offered to the NWS Office, Valley, Nebraska, on the EAS message pertaining to radiological incidents at the Cooper Nuclear Station.

E. Assist in annual training to the KFAB 1110 AM Radio and KFEQ 860 AM Radio Stations on the retransmission of the EAS message pertaining to radiological incidents from the National Weather Service and the broadcast of Special News Broadcast Messages delivered by the appropriate authorities in the States of Missouri and Nebraska subsequent to the receipt of an EAS message received from the National Weather Service pertaining to a nuclear power plant incident at the Cooper Nuclear Station.

F. Assist in the annual training of the appropriate agencies within Atchison County, Missouri and Nemaha County, Nebraska, in the proper method to activate the Alert and Notification fixed siren system in Atchison County, Missouri and in Nemaha and Richardson Counties, Nebraska.

XIII. Responsibilities of OPPD

OPPD will:

A. Notify in a timely manner the appropriate authorities within Harrison and Pottawattamie Counties in Iowa and the County of Washington and the State of Nebraska.

B. Maintain the capability to activate the sirens within the 10-mile Emergency Planning Zone should the local risk counties for one reason or another be unable to do so. However, it is the responsibility of the HCEMA, PCEMA and WCEMA for activation of the sirens.

C. Provide timely equipment updates and modifications to the Alert and Notification System fixed siren activation system already located in Harrison and Pottawattamie Counties, Iowa and Washington County, Nebraska, to allow these counties to activate the Alert and Notification fixed siren system in Harrison and Pottawattamie Counties in Iowa, and Washington County, Nebraska.

D. Assist in annual training offered to the NWS Office, Valley, Nebraska, on the EAS message pertaining to radiological incidents at the Fort Calhoun Nuclear Station.

E. Assist in annual training to the KFAB 1110 AM Radio Station on the retransmission of the EAS message pertaining to radiological incidents from the National Weather Service and the broadcast of Special News Broadcast Messages delivered by the appropriate authorities in the States of Iowa and Nebraska subsequent to the receipt of an EAS message received from the National Weather Service pertaining to a nuclear power plant incident at the Fort Calhoun Nuclear Station.

F. Assist in the annual training of the appropriate agencies within Harrison and Pottawattamie Counties, Iowa and Washington County, Nebraska, in the proper method to activate the Alert and Notification fixed siren system in Harrison and Pottawattamie Counties in Iowa, and in Washington County, Nebraska.

XIV. PASSWORD PROTECTION

A. While passwords must be readily accessible in case of an emergency, each agency which uses or has knowledge of passwords for the initiation of EAS messages by the NWS, KFAB, and KFEQ shall ensure they are kept confidential and not released to the general public.

B. Should any password be compromised, immediate corrective action will be taken by agency which realizes a compromise has occurred. These steps include:

   a. The NWS, KFAB and/or KFEQ, as applicable, shall immediately be notified to terminate the use of the compromised password or passwords.

   b. The agency shall coordinate with their State and/or County Agency, NPPD, OPPD and the NWS, KFAB and/or KFEQ, as applicable, to establish a new password or passwords.

   c. The applicable agencies shall determine how the passwords and/or authentication procedures were compromised and establish more secure controls to ensure the password or passwords and/or authentication procedures are not compromised in the future.

XV. Attachments

A. Attachment 1 contains the content of the prewritten NWS EAS Message from ACEMA.

B. Attachment 2 contains the content of the prewritten NWS EAS Message from NCEMA.

C. Attachment 3 contains the content of the prewritten NWS EAS Message from Iowa/Nebraska.

D. The appendices may be changed or revised with the mutual concurrence of ACEMA, HCEMA NCEMA, PCEMA, RCEMA, HSEMD, SEMA and NEMA and without a need to update this agreement.

XVI. CANCELLATION

A. NWS Letter to Mr. Jonathan F. Schwarz, NEMA, dated June 26, 2000.

B. MOA between HSEMD, KFAB, NEMA, NPPS and OPPD, last dated April 7, 2000.

C. MOA between ACEMA, NCEMA, RCEMA, SEMA, NEMA, KFAB, KFEQ, NWS and NPPD, dated 1 October 2003.

XVII. WITHDRAWL

This agreement may be amended or modified at any time by mutual consent of the parties hereto. This Agreement may be terminated at any time by mutual consent of the parties or terminated by any party upon giving 90 days advance written notice to all other parties involved.

XVIII. APPROVAL:

ATCHISON COUNTY
EMERGENCY MANAGEMENT AGENCY

By: Mark L. Logan

Title: Mr. Marlin Logan
Presiding Commissioner, Atchison County

Date: 6-15-10

NEMAHA COUNTY
EMERGENCY MANAGEMENT AGENCY

By: Richard D. Black

Title: Mr. Monty Lovelace, Chairman
Nemaha County Board of Commissioners

Date: 05-18-10

RICHARDSON COUNTY
EMERGENCY MANAGEMENT AGENCY

By: James D. Gerweck
Title: Mr. James D. Gerweck, Director
Richardson County Emergency Management

Date: 04-16-2010

HARRISON COUNTY
EMERGENCY MANAGEMENT AGENCY

By: Larry P. Oliver
Title: Mr. Larry Oliver, Director
Harrison County Emergency Management

Date: July 1, 2010

POTTAWATTAMIE COUNTY
EMERGENCY MANAGEMENT AGENCY

By: [signature]
Title: Mr. Jeffrey D. Theulen, Director
Pottawattamie Co. Emergency Management

Date: 7/7/10

REGION 5-6 FOR WASHINGTON COUNTY
EMERGENCY MANAGEMENT AGENCY

By: [signature]
Title: Mr. Bill Pook, Coordinator
Region 5-6 Emergency Management

Date: 4-5-5-10

IOWA
HOMELAND SECURITY AND EMERGENCY MANAGEMENT

By: _____
Title: Mr. David Miller, Administrator
Iowa Homeland Security & Emergency Management

Date: 7/30/10

MISSOURI
STATE EMERGENCY MANAGEMENT AGENCY

By: _____
Title: Mr. Paul Parmenter, Director
Missouri Emergency Management

Date: 7/23/2010

KFAB RADIO STATION, OMAHA, NE

By: _____

Title: Mr. Gary Sadlemyer, Program Director
KFAB Radio

Date: 6-10-10

KFEQ RADIO STATION, ST. JOSEPH, MO

By: _____

Title: Mr. Bob Orf, Operations Manager
Eagle Radio Group, Inc.

Date: 8-6-2010

NEBRASKA
EMERGENCY MANAGEMENT AGENCY

By: _____

Title: Mr. Al Berndt, Assistant Director
Nebraska Emergency Management Agency

Date: 2 Mar 2010

NATIONAL WEATHER SERVICE

By: _____

Title: Mr. James F. Meyer, Meteorologist in Charge
NWS Office, Valley, Nebraska

Date: 04/29/2010

COOPER NUCLEAR STATION
NEBRASKA PUBLIC POWER DISTRICT

By: _____

Title: Mr. John Austin, Emergency Preparedness Manager, Cooper Nuclear Station

Date: 3/3/10

FORT CALHOUN NUCLEAR STATION
OMAHA PUBLIC POWER DISTRICT

By: Steve Gebers

Title: Mr. Steve Gebers, Manager, Emergency Planning & Health Physics, Fort Calhoun Nuclear Station

Date: 8/13/10

ATTACHMENT 1

Message 1

NWS EAS MESSAGE

COOPER NUCLEAR STATION
STATES OF MISSOURI AND NEBRASKA

REQUEST NWS BROADCAST THIS MESSAGE (1) TIME WITH EAS TONES AND THEN CYCLE MESSAGE (WITHOUT EAS TONES) FOR 30 MINUTES BEFORE TERMINATING TRANSMISSION.

On behalf of Atchison in Missouri and Nemaha and Richardson Counties in Nebraska, this is the Atchison County Emergency Operations Center with an emergency announcement for everyone currently located within 10 miles of the Cooper Nuclear Power Station in Atchison County in Missouri and Nemaha and Richardson Counties in Nebraska.

The Nebraska Public Power District has announced that an emergency exists at the Cooper Nuclear Station, located on the Missouri River approximately three miles south of Brownville, Nebraska.

Officials encourage you to remain calm, do not use the telephone or your cellular telephone unless you have a personal emergency, and refer to your Emergency Planning Information within your current Cooper Nuclear Station calendar. Please leave telephone and cellular lines open for emergency response authorities.
State, local and utility emergency personnel are responding.

PLEASE STAY TUNED TO KFAB 1110 AM RADIO, OMAHA, NE AND KFEQ 680 AM RADIO, St. JOSEPH, MO FOR ADDITIONAL EMERGENCY INFORMATION

NOTE: A Back-Up message should also be received from Nemaha County, Nebraska, only broadcast the message that is received first, i.e. from Atchison County **OR** from Nemaha County.

ATTACHMENT 2

Message A

NWS EAS MESSAGE

NATIONAL WEATHER SERVICE EAS MESSAGE

COOPER NUCLEAR STATION

STATES OF MISSOURI AND NEBRASKA

REQUEST NWS BROADCAST THIS MESSAGE (1) TIME WITH EAS TONES AND THEN CYCLE MESSAGE (WITHOUT EAS TONES) FOR 30 MINUTES BEFORE TERMINATING TRANSMISSION.

NWS TO ANNOUNCE THE FOLLOWING:

On behalf of Atchison in Missouri and Nemaha and Richardson Counties in Nebraska, this is the Nemaha County Emergency Operations Center with an emergency announcement for everyone currently located within 10 miles of the Cooper Nuclear Power Station in Atchison County in Missouri and Nemaha and Richardson Counties in Nebraska.

The Nebraska Public Power District has announced that an emergency exists at the Cooper Nuclear Station, located on the Missouri River approximately three miles south of Brownville, Nebraska.

Officials encourage you to remain calm, do not use the telephone or your cellular telephone unless you have a personal emergency, and refer to your Emergency Planning Information within your current Cooper Nuclear Station calendar. Please leave telephone and cellular lines open for emergency response authorities.

State, local and utility emergency personnel are responding.

PLEASE STAY TUNED TO KFAB 1110 AM RADIO, OMAHA, NE AND KFEQ 680 AM RADIO, St. JOSEPH, MO FOR ADDITIONAL EMERGENCY INFORMATION

NOTE: A Back-Up message should also be received from Atchison County, Missouri, only broadcast the message that is received first, i.e. from Nemaha County **OR** from Atchison County.

ATTACHMENT 3

Message #1

NWS EAS MESSAGE

NATIONAL WEATHER SERVICE EAS MESSAGE

FORT CALHOUN NUCLEAR STATION

STATES OF IOWA AND NEBRASKA

REQUEST NWS BROADCAST THIS MESSAGE ONE (1) TIME WITH EAS TONES AND THEN CYCLE MESSAGE (WITHOUT EAS TONES) FOR 30 MINUTES BEFORE TERMINATING TRANSMISSION.

NWS TO ANNOUNCE THE FOLLOWING:

On behalf of officials in the Emergency Operations Centers in Harrison County, Iowa and Washington County, Nebraska. This is an emergency announcement for everyone currently located within 10 miles of the Fort Calhoun Nuclear Power Station in Harrison and Pottawattamie Counties in Iowa and Douglas and Washington Counties in Nebraska.

The Omaha Public Power District has announced that an emergency exists at the Fort Calhoun Nuclear Station, located on the Missouri River approximately three miles south of Blair, Nebraska.

Officials encourage you to remain calm, do not use the telephone or your cellular telephone unless you have a personal emergency. Refer to your Emergency Planning Information Brochure. Please leave telephone and cellular lines open for emergency response authorities. As a protective measure, dairy animals within the entire Emergency Planning Zone, an approximate ten-mile radius around the nuclear station, should be sheltered and put on stored feed and protected water.

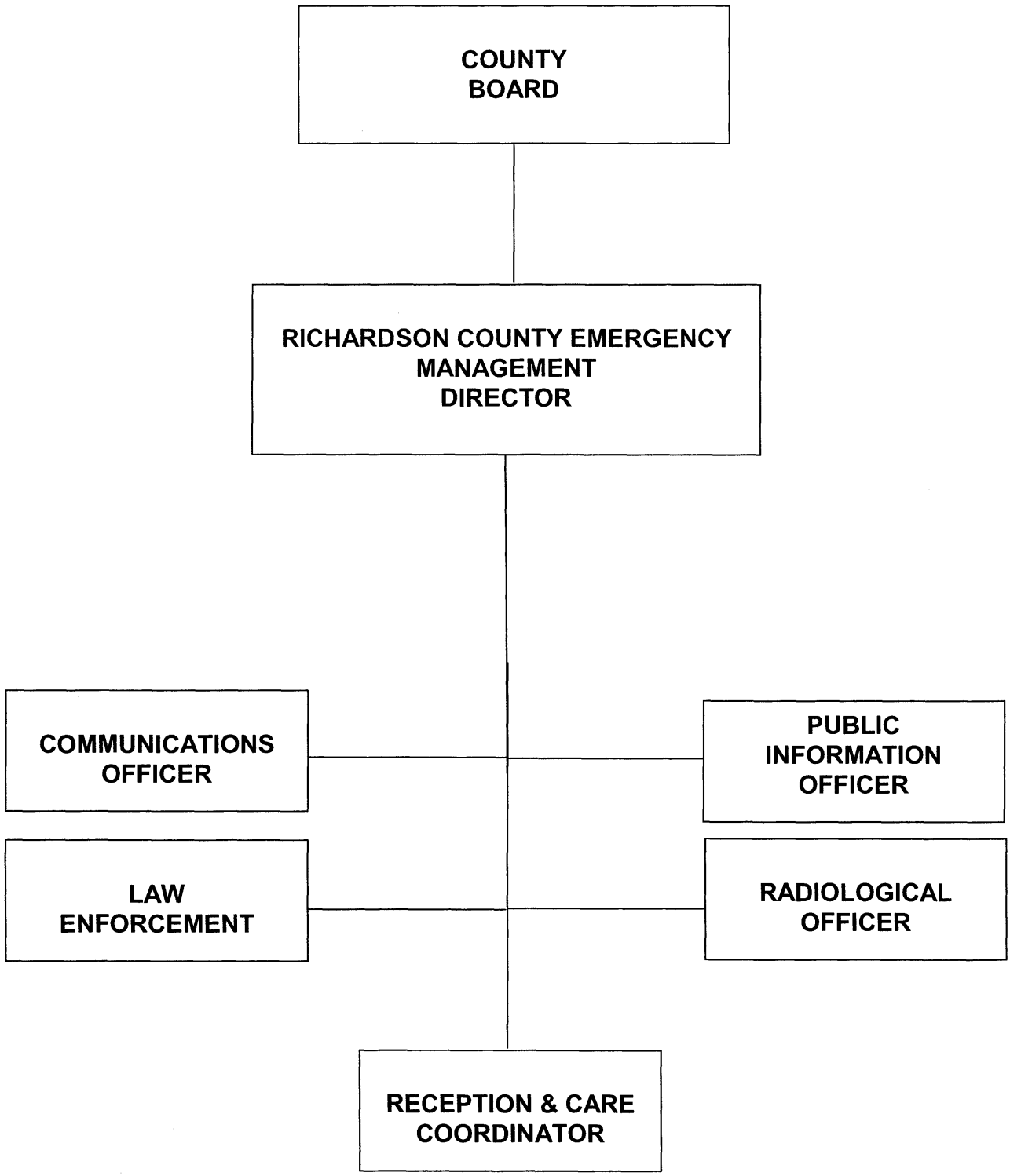
State, local and utility emergency personnel are responding.

PLEASE STAY TUNED TO KFAB 1110 AM RADIO, OMAHA, NE FOR ADDITIONAL EMERGENCY INFORMATION

DIRECTION AND CONTROL

ORGANIZATION CHART

RICHARDSON COUNTY



DIRECTION AND CONTROL

I. PURPOSE

The purpose of this Annex is assure that adequate measures to protect the health, safety, and welfare of those residents and transients within the 10-mile (plume) EPZ, who would be affected by a radiological emergency at the Cooper Nuclear Power Station, can and will be implemented through centralized and coordinated management of emergency response activities.

II. GENERAL

A. The Richardson County Emergency Operating Center (EOC) is located in the lower level of the Richardson County Courthouse, 1700 Stone Street, Falls City, Nebraska.

B. The EOC has the capability of back-up emergency power.

C. Access to the EOC can be effectively controlled.

D. Adequate telephonic capability exists within the EOC.

E. The County Board of Commissioners are responsible for issuing a local Declaration of Emergency. The decision to issue a declaration would be based on the potential of protective actions for residents within the 10-mile EPZ or the probability that Falls City would receive evacuees.

III. ORGANIZATION AND RESPONSIBILITIES

A. The Direction and Control function is carried out by the County Board of Commissioners which is comprised of government and Key Officials, as required.

B. Government Officials are responsible for their respective village, city, or county emergency operations including assuring continuity of resources. The Chair of the Richardson County Board of Commissioners is responsible for all county emergency operations outside of corporate city limits.

C. EOC Staff members are appointed or approved by the BOC and are responsible for carrying out emergency operations and advising the Emergency Management Director on matters pertaining to their areas of responsibilities. These officials, or their representative, will report to the EOC as required by the nature of the emergency.

D. City and county officials are members of the EOC Supporting Staff and will advise the BOC, as required.

E. General responsibilities of the Richardson County Emergency Management Director include:

1. Advising the BOC in all matters pertaining to disaster operations.

2. Maintain the EOC in a state of readiness and preparedness for emergency operations at all times.

3. Management of the operation and attendant record keeping and message flow activities of the EOC.

4. Staffing of the EOC.

5. Ensure access to the EOC can be controlled and adequate security maintained.

6. Development of procedures to alert special needs personnel in case of emergency.

7. Liaison and coordination with the Nemaha County EOC.

F. Specific responsibilities and tasks in Direction and Control are contained in the Action Guides, Attachment 1 and Attachment 2, and are divided into the four classes of Emergency Action Levels.

G. Lines of Succession

The Chair, Richardson County Board of Commissioners, or his designee (County Emergency Management Director) will be responsible to initiate actions and conduct emergency operations. In the Chair's absence, responsibility will be delegated according to County procedures for continuity of county government.

IV. CONCEPT OF OPERATIONS

A. Activation of Emergency Operating Center (EOC)

1. The Chair of the County Board, Richardson County Sheriff, and the Richardson County Emergency Management Director are authorized to activate the Richardson County Emergency Operating Center (EOC) at their discretion.

2. The Richardson County Emergency Management Director will evaluate and assess an emergency/disaster as soon as possible. Immediate requests for assistance from Emergency Management will be channeled through the Sheriff or the EOC to the appropriate agency/organization.

3. The Richardson County Emergency Management Director will determine the level of staffing required, based upon the situation, and alert appropriate personnel, agencies, and organizations.

4. The Richardson County Emergency Management Director will notify the Nebraska Emergency Management Agency upon activation of the EOC due to an emergency or disaster.

5. In the event of an incident classified in the ALERT category (see Attachment 6 to this Annex), state agencies and local government will alert key personnel and communicators to standby status and will be prepared to actively initiate response efforts if the incident worsens. Early decision will be made as to the degree of the state response effort required. The State EOC may be placed in limited activation status and staff for the State Field Command Post may be dispatched for the duration of the emergency. In situations where no radiation release is involved only increased readiness measures by state and local governments may be required. For the SITE AREA EMERGENCY and GENERAL EMERGENCY classes, full activation of state and local response organizations will be necessary. Estimated normal weather establishment/deployment times for the State Field Command Post to the plant (EOF) are: three hours (normal office hours) and five hours (after normal office hours).

6. When advised by plant management and/or the Nebraska Emergency Management Agency, emergency organizations will be alerted or activated to respond to incident classes as outlined in Basic Plan, paragraph III.F. and in Attachment 6 of this Annex. The principal executive officer of a political subdivision will declare a local disaster emergency in accordance with the Nebraska Disaster and Emergency Management Act of 1996. See Attachment 8 of this Annex for Sample Disaster Emergency Declaration. The effect of this declaration will be to activate the response and recovery aspects of any and all applicable local, inter-jurisdictional disaster or emergency management plans and to authorize the furnishing of aid and assistance from these plans.

7. The EOC will operate on a 24-hour basis during the emergency and the staff may be required to work 12-hour shifts. At least one member of the BOC will be present during EOC operating hours. Shift assignments for the EOC will be posted in a prominent location within the EOC.

B. <u>EOC Operations</u>

1. Space limitations of the EOC dictate that the number of officials operating from the EOC be restricted to the following functional areas (all other key officials will operate from their normal locations):

   a. Board of Commissioners

   b. Communications,

c. Public Information,

d. Radiological Officer,

e. Emergency Management,

f. Law Enforcement,

g. Reception and Care.

2. The EOC contains updated maps of Richardson County and its cities and villages as well as status boards required for tracking significant events/actions.

3. EOC security will be provided by the Richardson County Sheriff's Department or the Richardson County Emergency Managers Department.

4. All radio communications at the EOC are logged by the agency/organization receiving/transmitting the message.

5. A detailed activity log of EOC operations will be maintained by the Emergency Management Director, utilizing administrative support.

6. The Emergency Management Director oversees all logs and the message/information flow system.

C. Coordination and Control

1. Radiological response operations conducted by Richardson County will be as directed by the Chair of the County Board of Commissioners and/or the respective Mayors/Village Chairs and coordinated with the Richardson County Emergency Management Agency.

2. Specific operations are detailed in the Annexes to this plan. These disaster operations shall be performed in accordance with federal and state law and Richardson County Ordinances which cover mutual aid, emergency expenditures, emergency management worker's immunity from liability, worker's compensation, etc. The Executive Heads of government will make necessary policy decisions in accordance with applicable state and local laws and ordinances.

3. Coordination and supervision of all emergency operations will be through the appropriate EOC Staff, or their representatives, in order to provide for the most efficient management of resources.

4. Periodic briefings will be held during emergency operations for the Board of Commissioners.

5. Primary communications will be through normal systems. All emergency communications facilities will be controlled from the EOC. The communications available to the Executive Staff are outlined in Annex B.

6. The Public Information Officer will coordinate emergency public information (EPI) announcements with the EOF and State EOC (See Annex E).

7. Subsequent to area clearance by DHHS, Dept of Public Health officials, emergency management volunteers will be issued an identification card by the Emergency Management Director which will allow them access to restricted areas in order to perform their assigned tasks.

D. Local Emergency Declaration

In the event of situations where response and recovery are within the capabilities of local government, the Board of Commissioners may declare an emergency and issue such directives and activate such local resources as are required to respond to the incident.

E. Local Disaster Emergency Declaration

1. A Disaster Emergency may be declared by the Board of Commissioners of the affected political subdivision or if time does not allow by the Richardson County Emergency Manager in an emergency situation when it appears that response and recovery efforts will exceed normal local capabilities and/or resources.

2. Any order or declaration declaring, continuing, or terminating a disaster emergency will be given prompt and general publicity through the Public Information Officer. See Annex E.

3. Any Disaster Emergency Declaration will be filed promptly with the Clerk of the affected jurisdiction and the Nebraska Emergency Management Agency. See Sample Disaster Emergency Declaration, Attachment 8 to this Annex.

4. The effect of a declaration of a local disaster emergency will be to activate response and recovery aspects of all applicable local and/or inter-jurisdictional emergency management plans and to authorize the furnishing of aid and assistance from these plans.

5. In the event of a disaster beyond local control, the Governor may assume direct operational control over all or any part of the emergency management functions within this state. He/she may issue disaster proclamations and make, amend, and rescind orders, rules and regulations to accomplish the objectives of the State Disaster Law. He/she may also direct and compel the evacuation of all or part of the population from any stricken or threatened areas within the state. This includes the prerogative of prescribing routes, modes of transportation, and destinations in connection with evacuation.

F. Request for Assistance

1. Richardson County will first implement mutual aid within the county and with neighboring communities.

2. In the event local resources are not sufficient to meet the requirements, the Board of Commissioners of the affected jurisdiction, or his representative, may request assistance from the state.

3. Request for assistance from the state will be made to the Nebraska Emergency Management Agency.

4. The Nebraska Emergency Management Agency will review the request, evaluate the overall disaster situation, and recommend action to the Governor.

V. ADMINISTRATIVE AND LOGISTICS

A. Fiscal

All disaster related expenditures must be documented using generally accepted accounting procedures.

B. EOC and Supporting Staff Rosters

The Richardson County Emergency Management Director will ensure that the rosters (Attachment 3) are correct at all times. In accordance with NUREG-0654, pages 78-79.

C. Exercises

A functional exercise of Direction and Control aspects of this plan involving the Board of Commissioners and Key EOC Staff will be held at least annually.

D. Training

All Key Officials with responsibilities in this Plan should make every effort to attend training programs. Training programs designed for city and county officials offered by the Nebraska Emergency Management Agency and/or the Federal Emergency Management Agency include:

1. Basic Workshop: Topics include public information, use of volunteers, planning, programming, resource management, etc.

2. Emergency Planning Course: Designed to improve planning skills and promote the preparation of integrated emergency plans.

3. Leadership and Influence: Designed to increase skills in the areas of leadership, conflict management, and the use of influence and power.

4. Public Affairs Workshop: Designed to aid public information officers and officials in media relations.

5. Nebraska Emergency Management Agency Seminar: All emergency management organizations in Nebraska are invited to attend. Topics of interest are presented from the full spectrum of state emergency preparedness.

LIST OF ATTACHMENTS

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3	Emergency Contact Lists	A-13
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Richardson County Emergency Management Director

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: Once notified by dispatcher, no further action required. Begin review procedures.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: (1) Alert key officials.
(2) Determine availability of resources which may be needed.
(3) Alert American Red Cross.
(4) With the Radiological Officer, issue KI and dosimetry to the Sheriff.
(5) Review manpower requirements and mutual aid agreements.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Verify that Nemaha County has sounded all warning sirens, tone-alert radios and activated any EAS message releases.
(2) Activate EOC.
(3) Establish and maintain liaison with State EOC and Nemaha County.
(4) Determine approximately how many residents and transients are affected within the plume exposure zone (EPZ) which may be directed to evacuate to Falls City.
(5) Verify with Reception & Care Coordinator the alert and evacuation of "special needs" individuals.
(6) Verify with Sheriff probable traffic control points, obtain status of evacuation routes.
(7) Verify supervisors brief/issue KI to Emergency Workers.
(8) Alert registration, decontamination, and congregate care facilities.
(9) Review with the Board of Commissioners PAR recommendations, manpower/equipment requirements for implementing mutual aid, and criteria for issuing Emergency Declaration.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

Emergency Management Director

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required: (1) When directed, implement evacuation.
(2) Ensure "special needs" individuals evacuated.
(3) Monitor support operations and advise services of situation.
(4) Coordinate with Nemaha County.
(5) Provide reports of traffic movement and operational status to State EOC and Nemaha County EOC.
(6) Ensure Reception & Care Coordinator liaison with Otoe County regarding evacuees.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

POST EMERGENCY PHASE: Events that begin immediately after evacuation procedures have been implemented. Consists of Relocation, Reentry, and Return.

Actions Required: (1) Determine resource requirements to support re-entry recovery activities.
(2) Alert public works personnel of need for priority of road maintenance efforts to support return of evacuees.
(3) Coordinate with Nemaha County EOC that the affected area is safe for public access and tha evacuees should begin reentry.
(4) Prepare reports and deliver to EOC.

BOARD OF COMMISSIONERS

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: No action required.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: EOC may be activated and key personnel notified.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Provide any assistance requested.
(2) Ensure EOC activated and key personnel notified as necessary, including special needs individuals and host counties.
(3) Assess information regarding PARs.
(4) Review requirements for issuing Emergency Declaration.
(5) Provide press briefings in coordination with the Plant and State.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required: (1) Provide assistance as requested.
(2) Continuously assess information from the Plant, DHHS, Dept of Public Health, and GAR with regards to PARs.
(3) Consider issuing Emergency Declaration.
(4) Provide press briefings in coordination with the Plant and State.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

RICHARDSON COUNTY

BOARD OF COMMISSIONERS/EOC STAFF/EOC SUPPORT STAFF

POSITION

CHAIR – COUNTY BOARD

MAYOR – FALLS CITY

CHAIR – SHUBERT VILLAGE BOARD

COUNTY EMERGENCY MANAGEMENT DIRECTOR

SHERIFF/SHERIFF'S REPRESENTATIVE

FALLS CITY POLICE CHIEF

RADIOLOGICAL OFFICER

RECEPTION & CARE COORDINATOR

PUBLIC INFORMATION OFFICER

COMMUNICATIONS OFFICER

HEALTH OFFICER

AMERICAN RED CROSS REPRESENTATIVE

EMERGENCY CONTACT LIST

LOCAL GOVERNMENTS

	BUSINESS PHONE
RICHARDSON COUNTY	
EOC/Emergency Management	402.245.2446
	402.245.3054
Sheriff	402.245.2479
	402.245.2470
NEMAHA COUNTY	
EOC/Emergency Management	402.274.2552
Sheriff	402.274.3139
Board of Commissioners	402.274.4060
OTOE COUNTY	
EOC/Emergency Management	402.873.9588
Sheriff	402.873.9560
Board of Commissioners	402.873.9509

STATE AGENCIES

	BUSINESS PHONE
NEBRASKA EMERGENCY MANAGEMENT AGENCY	
Duty Officer/Emergency	402.471.7421
Assistant Director	402.471.7410
Operations Officer	402.471.7415
Cooper REP Planner	402.471.7213
DHHS, DEPT OF PUBLIC HEALTH	
24-Hour	402.471.7421
ER Manager	402.471.2168
Alternate	402.471.4545
ENVIRONMENTAL QUALITY, Department of	
Water and Oil Spills	402.471.2186
Air Pollution Control	402.471.2186
Water and Waste Management	402.471.2186
Director	402.471.2186

NEBRASKA STATE PATROL (Lincoln)	
Communications Dispatch non-emergency	402.471.4545
HEALTH AND HUMAN SERVICES	
Director	402.471.3121

EMERGENCY CONTACT LIST

NON-GOVERNMENTAL AGENCIES

	BUSINESS PHONE
AMERICAN RED CROSS	
NAKOTA 24-Hour Disaster Hotline	800.388.0370
Lancaster County 24-Hour	402.441.7038
Douglas County 24-Hour	800.987.4272
SALVATION ARMY – OMAHA	
Commanding Office	402.474.6263
Field Representative	402.898.5942
ADVENTIST DISASTER RESPONSE	
Disaster Consultant	402.489.6047
INTERCHURCH MINISTRIES OF NEBRASKA	
Executive	402.476.3391
MENNONITE DISASTER SERVICE	
Coordinator	402.761.2453
Medics at Home 24hr	402-345-6666
BLUE RIVERS AREA ON AGING - BEATRICE	
Director	402.223.1352
NEBRASKA PUBLIC POWER DISTRICT – COLUMBUS	
NPPD Corporate Office	402.563.5392

SECTOR AND ZONE DESIGNATORS FOR EMERGENCY PLANNING

Sector Nomenclature		**Zone Nomenclature**	
Centerline of Sector In degrees True North from Facility	22 ½ Degrees Sector	Miles From Facility	Zone
0 & 360	(N) A	0-1	1
22 ½	(NNE) B	1-2	2
45	(NE) C	2-3	3
67 ½	(ENE) D	3-4	4
90	(E) E	4-5	5
112 ½	(ESE) F	5-6	6
135	(SE) G	6-7	7
157 ½	(SSE) H	7-8	8
180	(S) J	8-9	9
202 ½	(SSW) K	9-10	10
225	(SW) L	10-15	15
247 ½	(WSW) M	15-20	20
270	(W) N	20-25	25
292 ½	(WNW) P	25-30	30
315	(NW) Q	30-35	35
337 ½	(NNW) R	35-40	40
		40-45	45
		45-50	50

AREA SEGMENT An area that is identified by a Sector and Zone alphanumeric designator. Thus, area AI is that area which lies between 348 ¾ to 11 ¾ degrees true north from the facility out to a radius of 1 mile. Area G4 would be the area between 123 ¾ to 146 ¼ degrees and the 3 and 4 mile arcs from the facility.

NOTE: The letters I and O have been omitted from Sector designators so as to eliminate possible confusion between letters and numbers.

Nebraska Population Estimates - Cooper Nuclear Station

Planning factors associated with this chart as follows:

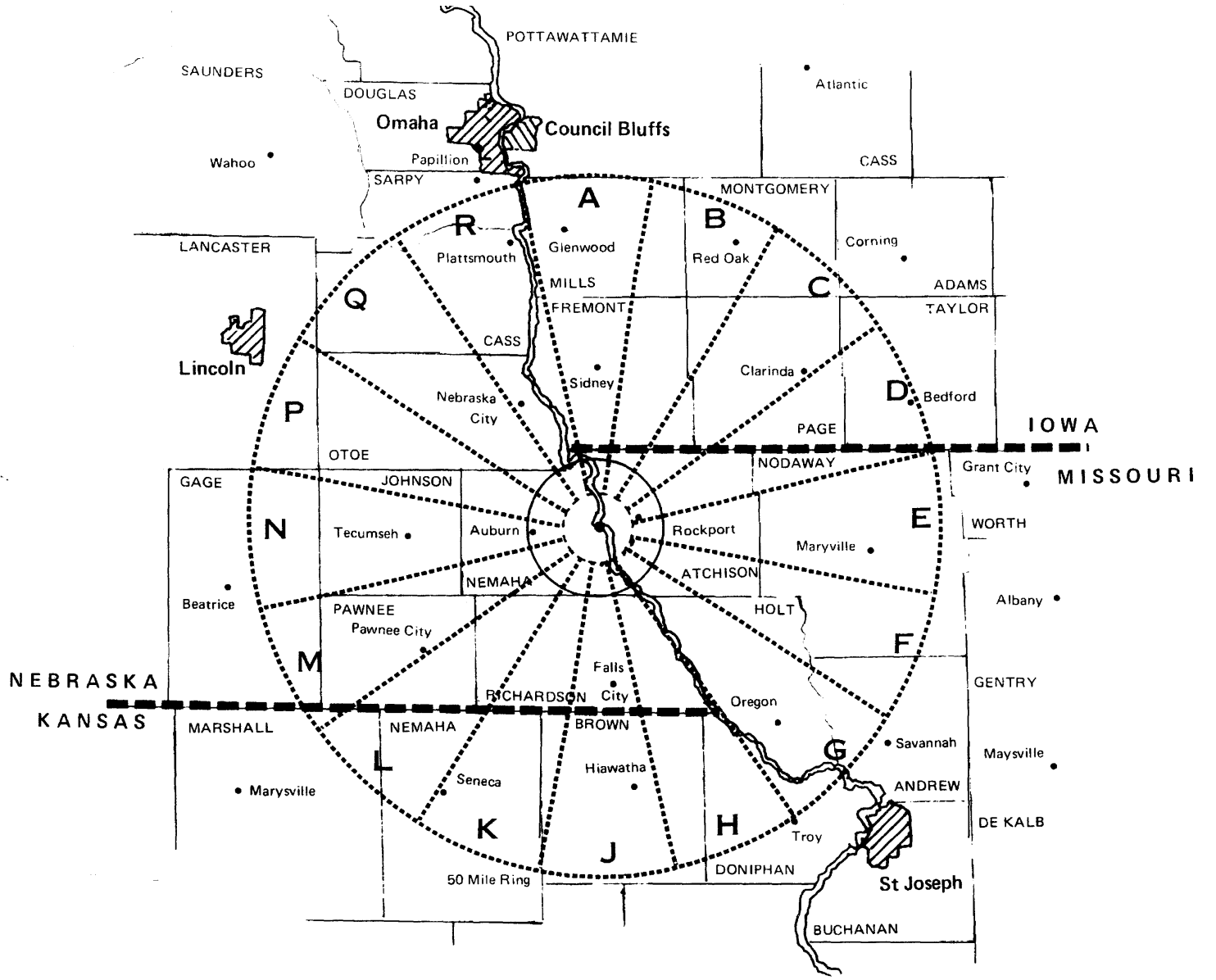
1. NPPD's house-to-house was complete and would be the basis for the information regarding the 0-10 mile zones.

2. Ingestion pathway information, 10-50 mile zones, is inherently more difficult to compute because of scope and scale involved.

3. Conservative estimates of population change are suitable for use to assist in assuring public safety.

This chart and guidelines are derived from NUREG 0654.

50-Mile Ingestion Pathway Zone – Cooper Nuclear Station



EMERGENCY ACTION LEVELS FOR NUCLEAR POWER FACILITIES

Four classes of Emergency Action Levels are established in NUREG 0654, Appendix 1, November, 1980, each with associated General Response actions. The classes are:

NOTIFICATION OF UNUSUAL EVENT

ALERT

SITE AREA EMERGENCY

GENERAL EMERGENCY

The rationale for the NOTIFICATION and ALERT classes is to provide early and prompt notification of minor events which could lead to more serious consequences given operator error or equipment failure or which might be indicative of more serious conditions which are not yet fully realized. A gradiation is provided to assure fuller response preparation for more serious indicators. The SITE AREA EMERGENCY class reflects conditions where some significant releases are likely or are occurring but where a core melt situation is not indicated based on current information. In this situation, full mobilization of emergency personnel in the near site environs is indicated as well as dispatch of monitoring teams and associated communications. The GENERAL EMERGENCY class involves actual or imminent substantial core degradation or melting with the potential for loss of containment.

Descriptions of each class and response actions are contained in the following pages of Attachment 6.

NOTIFICATION OF UNUSUAL EVENT

Description: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Purpose: Purpose of off-site notification is to (1) assure that the first step in any response later found to be necessary has been carried out, (2) bring the operating staff to a state of readiness, and (3) provide for systematic handling of unusual events information and decision-making.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

Cooper Nuclear Station

1. Promptly inform state and/or local off-site authorities of nature of unusual condition within 15 minutes of declaration.
2. Augment on-shift resources as needed.
3. Assess and respond.
4. Escalate to a more severe class.

   -OR-
5. Close out with verbal summary to state and/or local off-site authorities within 24 hours and prior to issue of any press releases.

Richardson County

1. Provide fire or security assistance if requested.
2. Standby until verbal closeout.

   -OR-
3. Escalate to a more severe class.

ALERT

Description: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Purpose: Purpose of off-site ALERT is to (1) assure that emergency personnel are readily available to respond if situation becomes more serious or to perform confirmatory radiation monitoring if required, (2) provide off-site authorities current status information.

Release Potential: Any releases expected to be limited to small fractions of the EPA Protective Action Guidance exposure levels.

Cooper Nuclear Station

1. Promptly inform state and/or local off-site authorities of ALERT status and reason for ALERT within 15 minutes of declaration.
2. Augment resources by activation of on-site Technical Support Center, on-site Operational Support Center, Emergency Operations Facility (EOF), and key emergency personnel. Bring Joint Information Center (JIC) to standy-by status.
3. Assess and respond.
4. Dispatch on-site monitoring teams and associated communications.
5. Provide periodic plant status updates to off-site authorities (at least every hour).
6. Provide periodic meteorological assessments to off-site authorities and, if any releases are occurring, dose estimates for actual release.
7. Escalate to a more severe class if appropriate.

   -OR-
8. Close out or recommend reduction in emergency class by verbal summary to off-site authorities followed by written summary within 8 hours of closeout or class reduction.

Richardson County

1. Provide fire or security assistance if requested.
2. Augment resources by activating EOC and selected staff. Accomplish readiness phase activities.
3. Alert to stand-by status key emergency personnel including communications.
4. Maintain ALERT status until verbal closeout or reduction of emergency class.
5. Notify schools of ALERT.

   -OR-
6. Escalate to a more severe class.

SITE AREA EMERGENCY

Description: Events are in process or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public.

Purpose: Purpose of the SITE AREA EMERGENCY warning is to (1) assure that response centers are manned, (2) assure that monitoring teams are dispatched, (3) assure that personnel required for evacuation of near-site areas are at duty stations if situation becomes more serious, (4) provide current information for consultation with off-site authorities and (5) provide updates for the public through off-site authorities.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guidance exposure levels, except near site boundary.

Cooper Nuclear Station

1. Promptly inform state and/or local off-site authorities of SITE AREA EMERGENCY status and reason for EMERGENCY within 15 minutes of declaration.
2. Augment resources by activating on-site Technical Support Center, on-site Operation Support Center, and on-site Emergency Operations Facility (EOF).
3. Assess and respond.
4. Dispatch on-site and off-site monitoring teams and associated communications.
5. Dedicate an individual for plant status updates to off-site authorities and periodic press briefings (perhaps jointly with off-site authorities).
6. Make senior technical and management staff on-site available for consultation with the NRC and the state on a periodic basis.
7. Provide meteorological and dose estimates to off-site authorities for actual releases via a dedicated individual or automated data transmission.
8. Provide release and dose projections based on available plant condition information and foreseeable contingencies.
9. Escalate to GENERAL EMERGENCY class.
   -OR-
10. Closeout or recommend reduction in emergency class by briefing of off-site authorities at EOF and by phone followed by written summary within 8 hours of closeout or class reduction.

Richardson County

1. Provide any assistance requested.
2. If not already accomplished by Nemaha County, implement immediate public notification of emergency status (EAS) in EPZ and provide public with periodic updates coordinated with the State EOC and/or EOF.
3. Augment resources by activating EOC Staff and dispatch key emergency personnel
4. Activate other emergency response personnel (e.g. those that may be needed for evacuation and decontamination station operations) and dispatch personnel to appropriate duty stations.
5. Continuously assess information from the Plant, DHHS, Dept of Public Health, and the GAR with regard to changes to protective actions already initiated for public and mobilizing evacuation resources.

6. Provide press briefings in coordination with the Plant and State PIO.
7. Maintain SITE AREA EMERGENCY status until closeout or reduction of emergency class.

   -OR-

8. Escalate to GENERAL EMERGENCY class, if appropriate.

GENERAL EMERGENCY

Description: Events are in process or have occurred which involve an actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Purpose: Purpose of the GENERAL EMERGENCY warning is to (1) initiate pre-determined protective actions for the public, (2) provide continuous assessment of information from the licensee and off-site organization measurements, (3) initiate additional measures as indicated by actual or potential releases, (4) provide consultation with off-site authorities, and (5) provide updates for the public through off-site authorities.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guidance exposure levels for more than the immediate site area.

Cooper Nuclear Station

1. Promptly inform state and local off-site authorities of GENERAL EMERGENCY status and reason for emergency within 15 minutes of declaration. (Parallel notification of state/local)
2. Dispatch on-site and off-site monitoring teams and associated communications.
3. Dedicate an individual for plant status updates to off-site authorities and periodic press briefings, perhaps jointly with off-site authorities.
4. Make senior technical and management staff on-site available for consultation with the NRC and the state on a periodic basis.
5. Provide meteorological and dose estimates to off-site authorities for actual releases via a dedicated individual or automated data transmission.

Richardson County

1. Provide any assistance requested.
2. Augment resources by activating EOC and Registration Center.
3. Dispatch key emergency personnel to duty stations within 10-mile radius.
4. Continuously assess information from Plant, DHHS, Dept of Public Health, and the GAR with regard to changes to protective actions already initiated for public and mobilizing evacuation resources.
5. Provide press briefings in coordination with the Plant and State PIO.
6. Implement evacuation or in-house shelter of the 2-mile radius.
7. Maintain GENERAL EMERGENCY status until close-out or reduction of emergency class.

CONSIDERATIONS – REP OPERATIONS

OBJECTIVE

To provide a summary of considerations in decision making for moving people from areas of high potential hazard to areas considered safe in a controlled and efficient manner.

METHODOLOGY

It is necessary to prepare plans and procedures for a possible evacuation of an approximate 10-mile area around the nuclear power plant in the event of a catastrophic release during a GENERAL EMERGENCY.

Since many agencies would be involved in the decision and implementation of an evacuation such as this, coordination is of utmost importance. Decision makers need certain "benchmarks" for ordering a protective action such as this.

The first benchmark to be considered is the declaration of a SITE AREA EMERGENCY at the nuclear plant. Decision makers at all levels of government will have been alerted prior to this time and should be gathering together at the Emergency Operating Center. Precautionary and advanced preparatory measures should now be considered. All decision makers and operations officers should begin to familiarize themselves with the probable areas that could be affected if a release should occur (plume exposure pathway).

The area of the probable plume can be estimated by requesting a weather forecast combined with a request from the State EOC for probably plume configuration. Once this information is received (it may be provided in the form of alphanumeric sector and zone designators) it should be compared with the standard REP map provided to all emergency centers. The state will convert the sectors and zones to the sub-areas for the redefined EPZ. This map will serve as the basis for all coordination involving geographical information.

The next most important benchmark involves a request by the EOF for local government to convert alphanumeric sector and zone designators into local terms. This conversion will reflect the sub-areas of the redefined EPZ. The State of Nebraska will follow the guidelines for evacuation of zero to two miles and two miles to ten miles. Sub-areas will not be split, nor will the evacuation of cities or villages unless extenuating circumstances exist. These circumstances will be evaluated by personnel at the EOF. Cities and villages will be taken in their entirety. Recommendations for in-house shelter for outlying areas will be instituted if necessary.

OTHER OPERATIONAL ASPECTS

In the conversion of a potential plume hazard area to local terms, decision makers should consider non-radiological aspects in their definition of a hazard area. When an impediment exists, such as a portion of the area being flanked by an impenetrable barrier (Missouri River with no bridge for crossing) on one side and the potential plume on the other side, this should be taken into account when defining the potential hazard area.

Once a potential hazard has been defined, (still in the SITE AREA EMERGENCY classification), decision makers and operations officers should consider the demographic characteristics of the area. Characteristics to be considered are:

- institutionalized persons, such as hospitals, nursing homes, and schools,
- handicapped persons and others with special needs,
- large office buildings, manufacturing plants, and shopping centers,
- parks, recreation areas, and transient areas.

Agencies and organizations associated with these demographic groups should be placed on alert status immediately with recommendations that they consider their internal plans and procedures should protective actions be ordered which could effect them. Request from these agencies and organizations any support requirements that may be necessary. As soon as these requests are received and evaluated by the EOC staff, preparatory work should begin to provide the support that might be needed.

Special and timely consideration needs to be given to identify resources for individual notification for the elderly and handicapped. Also, a method should be readied to assure local government of confirmation that protective actions will be carried out.

Wherever possible, transient concentrations such as parks, beaches, etc. should be closed during the SITE AREA EMERGENCY. This will relieve any additional pressure on resources if a GENERAL EMERGENCY is declared.

Traffic and area access control may become a problem with or without a GENERAL EMERGENCY declaration. The plan should be consulted along with any additional information as to possible traffic problem areas and resources, either personnel or barrier/information type, be identified. If volunteer personnel resources are used, communications with the traffic control coordinator should be provided also.

Preparations also need to be made to support the local Public Information Officer (PIO). The PIO will be your most important link to the people you will be protecting. Information flow should be routed to the PIO on every aspect that may be important to the public.

The PIO should assure that sufficient clerical and communications support is available for his/her activities. The PIO should also assure that coordination is accomplished with federal state, plant, and other local PIOs.

SAMPLE LOCAL DISASTER EMERGENCY DECLARATION

A Disaster Declaration must be issued prior to requesting state or federal assistance.

A Disaster Declaration for a city or village must be transmitted through the County Board.

The following is a sample of the language that should be retyped onto the jurisdiction's official letterhead before submitting it to the State EOC.

Richardson County has suffered from a _____ (i.e. radiological incident) that occurred on _____ **(include date and time)** causing severe damage to public and private property, disruption of utility service, and endangerment of health and safety of the citizens of Richardson County within the disaster area. **(Briefly explain the extent of damage/loss and assistance required)** Therefore, the Chair of the Richardson County Board of Commissioners **(or the Mayor or Chair of Village Board of _____)** has declared a state of emergency authorized under Nebraska State Statute R.R.S. 81—829.50 on behalf of Richardson County, and will execute for and on behalf of Richardson County, the expenditure of emergency funds from all available sources, the invoking of mutual aid agreements, and the applying to the State of Nebraska for assistance from the Governor's Emergency Fund and any other resources he deems necessary in the fulfillment of his duties.

_____

Chair, Richardson County
Board of Commissioners
(or Mayor/Village Chair of _____)

_____

Date

WITNESS my hand and the seal of my office

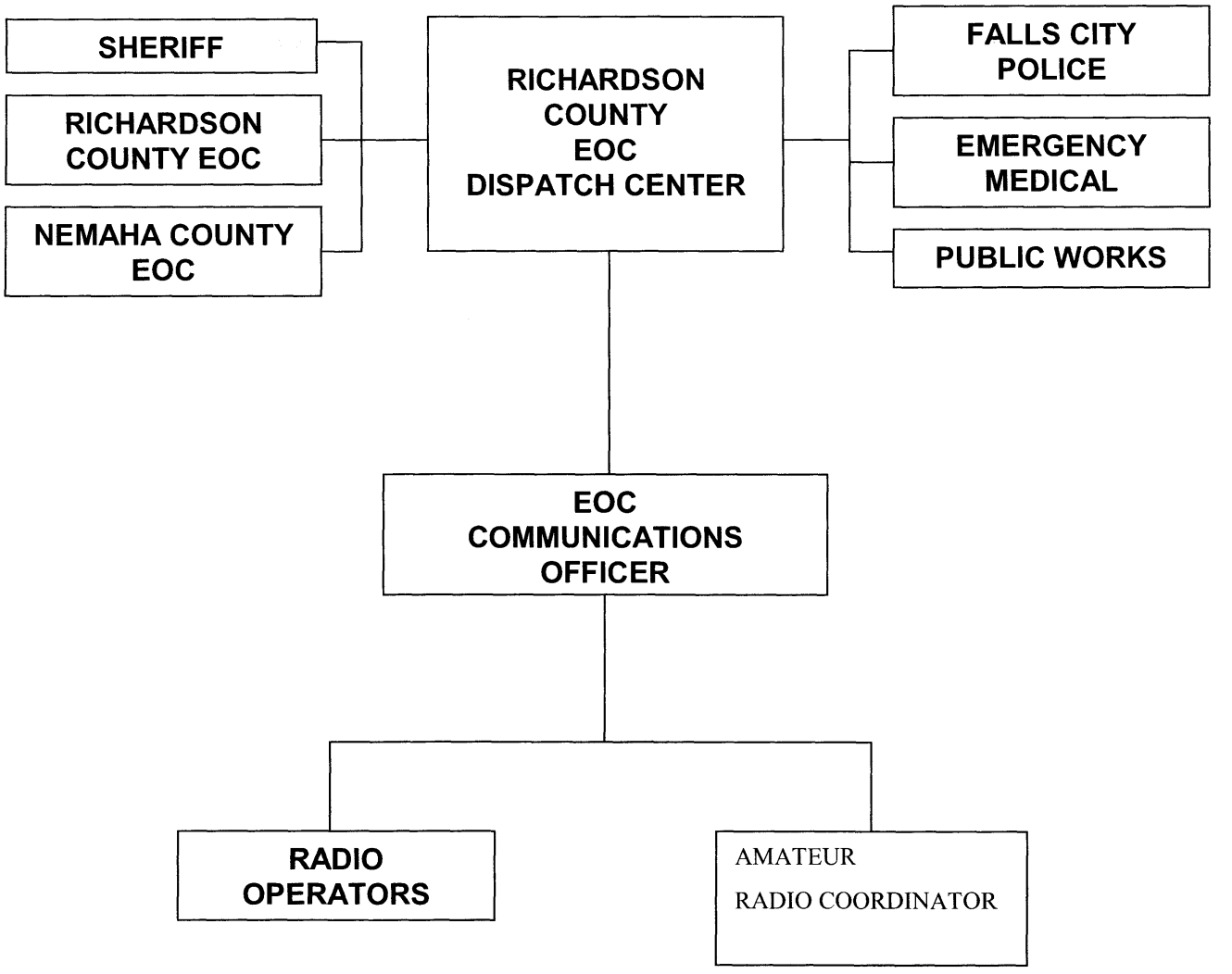
This _____ day of _____ , 20 ___.

_____

County/City Clerk

COMMUNICATION AND WARNING

FLOW CHART



COMMUNICATIONS AND WARNING

I. PURPOSE

This Annex provides information and guidance concerning available communications and warning systems within Richardson County. The total communications and warning system is discussed, and procedures for its use during emergency operations are outlined.

II. GENERAL

A. The emergency communications and warning system in support of Cooper Nuclear Station is located in the Sheriff's Dispatch Office at the Richardson County Courthouse. It is staffed on a 24-hour basis by dispatch personnel assigned to the Communications Center.

B. Richardson County Sheriff's Department Communications Center, Falls City, is the NAWAS warning point for Johnson, Nemaha, Pawnee, and Richardson Counties.

C. Richardson County EOC is the secondary or back-up warning point for Cooper Nuclear facility.

D. Communications and warning are vital to effective and efficient preparedness, response, and recovery activities during emergency operations.

E. Effective communications networks exist in Richardson County. Sufficient communications and warning equipment/capabilities are available to provide communications necessary for most emergency situations. In severe emergencies, augmentation may be required.

1. All ambulances and receiving hospitals in Richardson County are equipped with emergency radio communications utilizing 39.82 MHz and 39.90 MHz providing emergency medical communications. When needed, cell phones are used as a backup means of communication. See Annex G, VI.G in the Nebraska State RERP Plan.

III. ORGANIZATION/RESPONSIBILITIES

A. The communications and warning function will be under the direction and coordination of the Richardson County Emergency Management Director. The Richardson County Sheriff is responsible for the supervision of all activities within the communications center.

B. Specific responsibilities and tasks in Communications and Warning are contained in the Action Guide, Attachment 1, and are divided into the four classes of Emergency Action Levels. Some general areas of responsibility are:

1. Communications Officer: Responsible for maintaining communications within the Richardson County Communications Center, processing reports and information directed to the State EOC, maintaining accurate logs of all radio communication, and establishing effective message handling and routing procedures.

2. Radio Operators: Responsible for operating equipment properly at their assigned positions and handling required radio traffic.

IV. CONCEPT OF OPERATIONS

A. NOTIFICATION AND WARNING

1. When an emergency situation requiring off-site notification occurs, Cooper Nuclear Station will initiate predetermined telephone alert lists as published in its emergency plan.

2. Initial and update situation reports will be provided to the local EOC over the dedicated (COP) phone at least every 60 minutes and when there is a change in the plant status. The Nuclear Plant Emergency Notification Form (Attachment 4) is the primary method by which Cooper Nuclear Station will keep the local and State EOCs informed.

3. Nemaha County is responsible for implementation of notification/warning actions in the Plume EPZ. Normally, government and public warning information will be disseminated as directed by the Governor or his/her Authorized Representative. However, the system must also provide for local government decision and initiation of notification/warning actions for those in the Plume EPZ especially in the event of a fast breaking major nuclear power plant incident. In this case local government will make its decision based on the recommendations of power plant management and/or DHHS, Dept of Public Health.

4. Cooper Nuclear Station has installed outdoor warning sirens and tone alert radios for the primary means of public notification. Should a warning siren malfunction, police agencies conduct route alerting with vehicle mounted public address speakers to notify the public in towns, Brownville State Recreation Area, Indian Cave State Park, Steamboat Trace Trail, and along the portion of the Missouri River within the Plume EPZ.. Siren systems are designed to comply with Appendix 3 of NUREG-0654 and FEMA field evaluations have been performed. Cooper Nuclear Station Conducts monthly tests and maintenance on all sirens. It is the responsibility of local government to activate these systems based on the recommendations of the power plant or

DHHS, Dept of Public Health. In the Cooper Nuclear Station Plume EPZ, the plant management will recommend activation of the siren system whenever a SITE AREA EMERGENCY is declared. Nemaha County will activate the siren system and EAS.

NOTE: Until a new siren is installed, there is a one and one-quarter mile section of the Steamboat Trace Trail, approximately two to three miles north of Brownville, that is not adequately covered by a siren. Until then, the Nemaha County Sheriff's Department is responsible for checking the trail after sirens have been activated to notify anyone using the trails what the sirens mean.

5. Indian Cave State Park procedures call for evacuating the park when the warning sirens sound. The State Emergency Operations Center is responsible for confirmation of the evacuation through the Game and Parks Commission. During the busiest times for the park, the average number of visitors can be from 3,500 to as many as 12,000 during a three-day weekend.

Month	Total Visitors
January	*700*
February	*1,500*
March	*5,000*
April	*12,000*
May	*20,000*
June	*17,500*

Month	Total Visitors
July	*21,000*
August	*22,000*
September	*25,000*
October	*30,000*
November	*4,500*
December	*2,000*

6. Steamboat Trace Trail, opened in the spring of 1999, lies within the Plume EPZ. Warning advisory signs have been placed along the trail advising visitors what they should do if the sirens are activated. The Nemaha County Sheriff's Department is responsible for checking this trail after the sirens have been activated.

7. To complete the warning process, the transmission of advisory information by local government by means of the Emergency Alert System (EAS) should quickly follow siren activation. See Attachment 3 for specific dispatcher actions.

8. The alert and notification system can meet the 15 minute design objective if necessary.

9. The Nebraska State Patrol Dispatch will act as the backup capability in ensuring the Local Dispatches have been notified of an incident at the Cooper Nuclear Station. As demonstrated in the flow chart found in Annex B Attachment 4.

10. All communications with Federal Response Organizations will be coordinated by State. Description of the state's communication capabilities can be found in the State RERP Plan Annex G

B. COMMUNICATIONS CAPABILITIES

1. The EOC is equipped with adequate communications equipment to transmit and receive pertinent information. A dedicated (COP) phone capability exists to the Cooper Nuclear Station. The primary notification will be done by email and secondary conference lines will provide backup communication capabilities. Everbridge is the backup notification system used to notify medical response. Additional backup communications are comprised of cell phones and state wide radio systems.

2. A generator offers emergency power to the Dispatch Center should a power outage occur.

3. Once the EOC is operational (no later than SITE AREA EMERGENCY), information flow will be as outlined in Attachment 3.

4. Field Teams will communicate by State Wide Radio as primary and cell phones as a backup

C. COMMUNICATIONS DURING EVACUATION/REENTRY. Should an evacuation of all or part of the plume EPZ become necessary, Richardson County EOC will have communication with:

1. Nemaha County,

2. State EOC,

3. Law Enforcement,

4. Registration Center,

5. Reception Centers,

6. Decontamination Center.

Primary communications will be by direct line through public service telephone. Secondary (back-up) communications will be via two-way (high-band) radio.

V. ADMINISTRATION AND LOGISTICS

A. Training

Each agency or organization assigning personnel to the EOC for Communications and Warning purposes is responsible for ensuring that those individuals are adequately trained to use the equipment, are familiar with the procedures of the EOC, and understand the unique operating procedures. Refer to the Nebraska Radiological Training Program.

B. Plan Maintenance

The Communications Officer will be responsible for assisting the Emergency Management Director in the maintenance and improvement of this Annex. The Annex will be reviewed, updated, and modified as necessary, but not less than annually. Periodic testing of the communication system will vary, but shall include the state, NPPD, and the Richardson County Sheriff.

ST OF ATTACHMENTS

Attachment #	Item	Page
1	Communications Officer Action Guide	B-7
2	Richardson County Communications Capabilities	B-8
3	Information Flow/Notification Channels	B-9
4	Radiological Incident Reporting	B-11
5	Radiological Emergency Response Notification	B-13

Communications Officer

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: No action required.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: (1) Review key personnel phone numbers.
(2) Review EAS procedures.
(3) Check communications equipment and procedures.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Ensure warning sirens and tone alert radios have been activated and EAS message released by Nemaha County EMA.
(2) Ensure key personnel notified as necessary, including school superintendent, "special needs" individuals, institutions, and host counties.
(3) Verify communications operational.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required: (1) Maintain communications.
(2) Assist in the notification of key individuals and "special needs" individuals.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

Communication Links for Radiological Response

Facility	Primary	Secondary	Tertiary
Richardson County EOC	Telephone/Fax	39.90 MHz	SRS Radio
State EOC	Telephone/Fax	38.80 MHz	Ham
Nebraska State Patrol	Telephone/Fax	39.90 MHz	42.46 MHz
Cooper Nuclear Station	Telephone/Fax	38.80 MHz	Ham
Nemaha County EOC	Telephone/Fax	39.90 MHz	SRS Radio
Otoe County EOC	Telephone/Fax	39.90 MHz	SRS Radio
Joint Information Center (JIC)	Telephone/Fax		
Field Monitoring Teams	453.725 MHz		

Communications Capabilities of Richardson County EOC

Site		Frequency (MHz)	
Low Band*			
Nebraska Emergency Management Agency (receive)		38.60	
State Mobile Command (CRUSH)(receive only)		38.80	
Rescue Squads to Hospital	(receive only)	39.820	
Falls City Police, Sheriff Net (Nebraska)		39.90	
State Fire	(receive only)	39.980	
Nebraska State Patrol (NSP)	(receive only)	42.04	
Missouri State Patrol	(receive only)	42.06, 42.22	
NSP ((patrol cars to Lincoln)	(receive only)	42.30	
NSP	(receive only)	42.46	
VHF*			
Atchison Co. Missouri Sheriff	(receive only)	155.370	
Iowa & Missouri Mutual Aid	(receive only)	155.475	
Richardson County Roads		155.820	
Nemaha County Roads	(receive only)	155.895	
Missouri Sheriif	(receive only)	155.730	
Richardson County Emergency Management		155.745	
National Weather Service (St. Joesph, Valley)		162.400	
National Weather Service (Lincoln)		162.475	
Brown Co. Kansas	(receive only)	155.880	
UHF*			
Cooper Nuclear Station	(receive only)	450.000	453.725
State Emergency Management Repeater		453.650	
Nemaha County Medical Repeater	(receive only)	453.925	

*In addition to the frequencies listed, amateur (ham) radio equipment and volunteers are available to enhance communication capabilities.

Information Flow for Radiological Response - Narrative

Once the County EOCs, the State EOC, and the Forward Command Post (FCP) have become operational (no later than SITE AREA), the information flow will be as follows:

The primary notification method of the plant status by Cooper Nuclear Station will be via the dedicated (COP) phone. This is a direct phone line to the Law Enforcement Building in Auburn, the Nemaha County EOC, the SEOC, Richardson County Sheriff Dispatch, Richardson County EOC and the State Patrol. The information provided is documented on the Nuclear Plant Emergency Notification Form (NPENF), Attachment 4. The Protective Actions are only *recommendations* by Cooper Nuclear Station, and counties should not implement actions based solely on these recommendations.

Immediately after completing the dedicated (COP) phone conversation, Cooper Nuclear Station personnel will fax the notification form to Otoe and Richardson Counties. The SEOC will back up all notification form faxes to Otoe and Richardson Counties with a phone call confirming receipt.

Once the notification form is received, each jurisdiction will begin planning in accordance with their REP Plan. By utilizing the information contained on the notification form and applying it to their REP Plan, the following information is available to the potential host counties: (a) the sectors--areas--of evacuation; (b) the evacuation routes to be used; (c) the number of evacuees to expect; (d) when an evacuation is imminent.

Based on the above information, the potential host county can begin preparation for receiving evacuees.

Exceptions to the REP Plan, or the inability to execute the plan by any of the counties must be conveyed to the SEOC immediately. The SEOC will disseminate this information as appropriate.

Emergency Public Information (EPI) messages (other than the Initial EAS message) are released from the SEOC. Once an EPI message is released, a copy will be faxed to the counties and the JIC. The SEOC will back up these EPI messages with phone calls to the counties involved.

Once an EPI message is received by a host county stating an evacuation has commenced, actions to receive evacuees should begin.

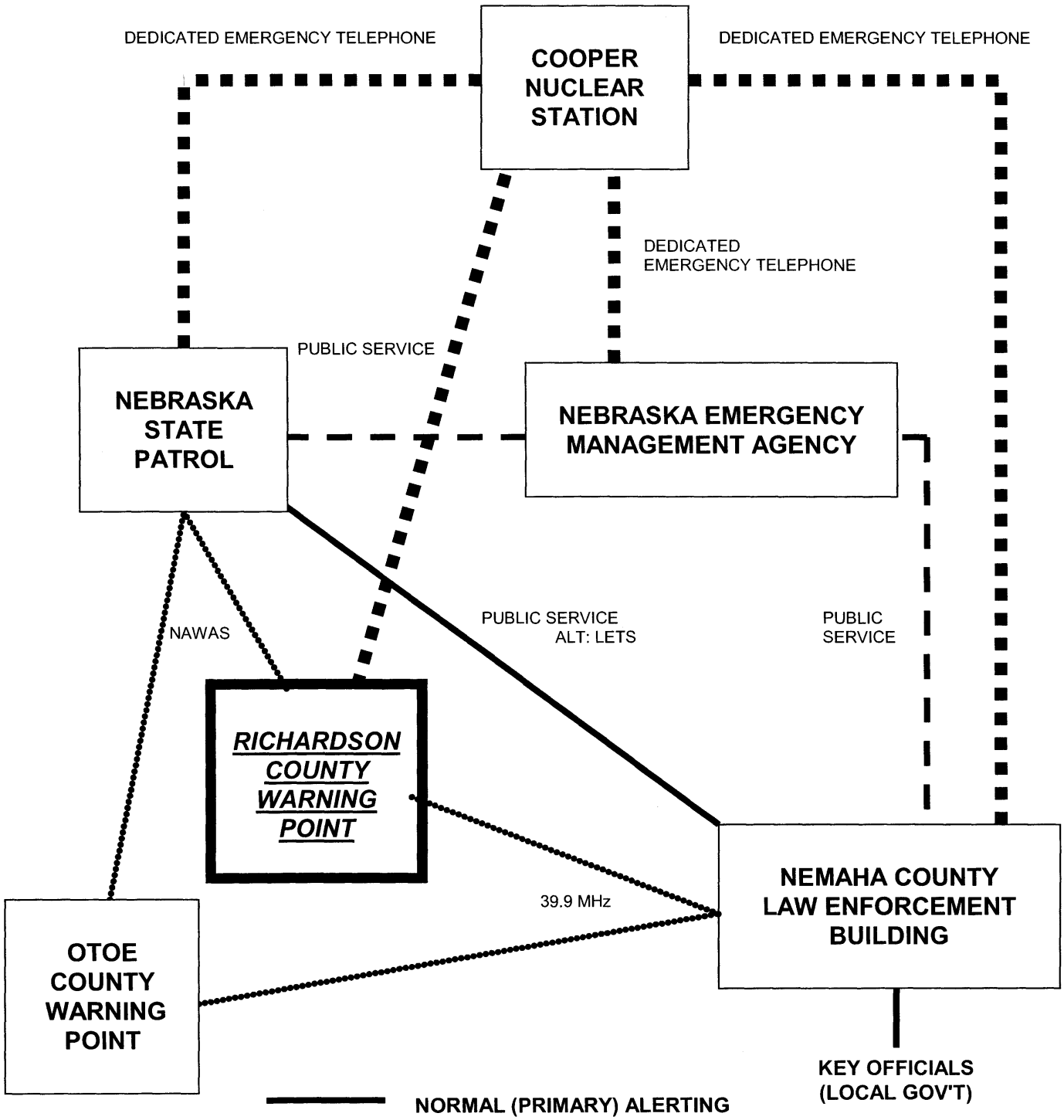
The SEOC will coordinate with the Nemaha County EOC and Richardson County EOC on the content of the Protective Action Recommendations contained in the EPI messages. This coordination will normally be over the telephone.

Press releases are coordinated by the JIC with the FCP. Copies of these releases will be faxed by the JIC to the SEOC. The SEOC then faxes these releases to the EOF and counties.

The decision for Emergency Workers to take Potassium Iodide (KI) will be made by the ER Manager, DHHS, Dept of Public Health. The Emergency Management Director responsible for

issuing the KI will be informed of this decision via fax, normally from the FCP. This decision can be confirmed by telephone with the SEOC.

LOCAL GOVERNMENT NOTIFICATION CHANNELS



RADIOLOGICAL INCIDENT REPORTING

SUBJECT

INITIAL REPORT TO OFF-SITE GOVERNMENT AGENCIES

UPDATE REPORT TO OFF-SITE GOVERNMENT AGENCIES

This form will be used by the Communications Center for recording appropriate data received from either the nuclear facility, Nebraska State Patrol, Nebraska Emergency Management Agency, or other state officials.

[ ] Emergency			[ ] This is a Drill
Notification Report Number: _____			Time of Transmittal: _____
[ ] Initial Report (Complete Sections 1-7 only)			[ ] Follow-Up Report
1) Name of CNS Communicator:			Call Back Number: 402-825-
2) Classification: [ ] NOUE; [ ] Alert; [ ] Site Area; [ ] General			EAL Number:
Event Declared (Date/Time):		Event Terminated (Date/Time):	
3) Meteorological Conditions	Wind Speed: MPH	Wind From: Degrees	Precipitation: [ ] YES; [ ] NO
Stability Class: [ ] A; [ ] B; [ ] C; [ ] D; [ ] E; [ ] F; [ ] G			
4) NOUE Airborne Release Values: ERP = 2.24E5 µCi/sec TG Building = 9.02E4 µCi/sec RX Building = 8.48E4 µCi/sec ARW Building = 9.08E4 µCi/sec	There [ ] is [ ] was [ ] will be	[ ] no [ ] an airborne [ ] a liquid	Release of Radioactive Material Greater than NOUE Limits.

5) Protective Action Recommendations (PARS): General Emergency Automatic PAR - Evacuate 2 mile radius/5 mile downwind, go indoors, and monitor EAS remainder 10 mile EPZ.

	None	[ ] Evacuate Sectors [ ] Shelter Sectors	Go indoors and monitor EAS in Sectors
0-2 Miles			
2-5 Miles			
5-10 Miles			

6) Prognosis: [ ] Stable; [ ] Unstable	Plant Status: [ ] at Power; [ ] Shutdown
7) Remarks:	

8) Release Information (required on follow-up notification with airborne release > NOUE limits):

Release From: [ ] ERP; [ ] Reactor Building; [ ] Turbine Building; [ ] Aug Radwaste Building; [ ] Other: _____

Release Height: [ ] 100 M (ERP); [ ] 10 M (RB, TB, ARWB); [ ] Other: _____ ft | Release Rate (µCi/sec)

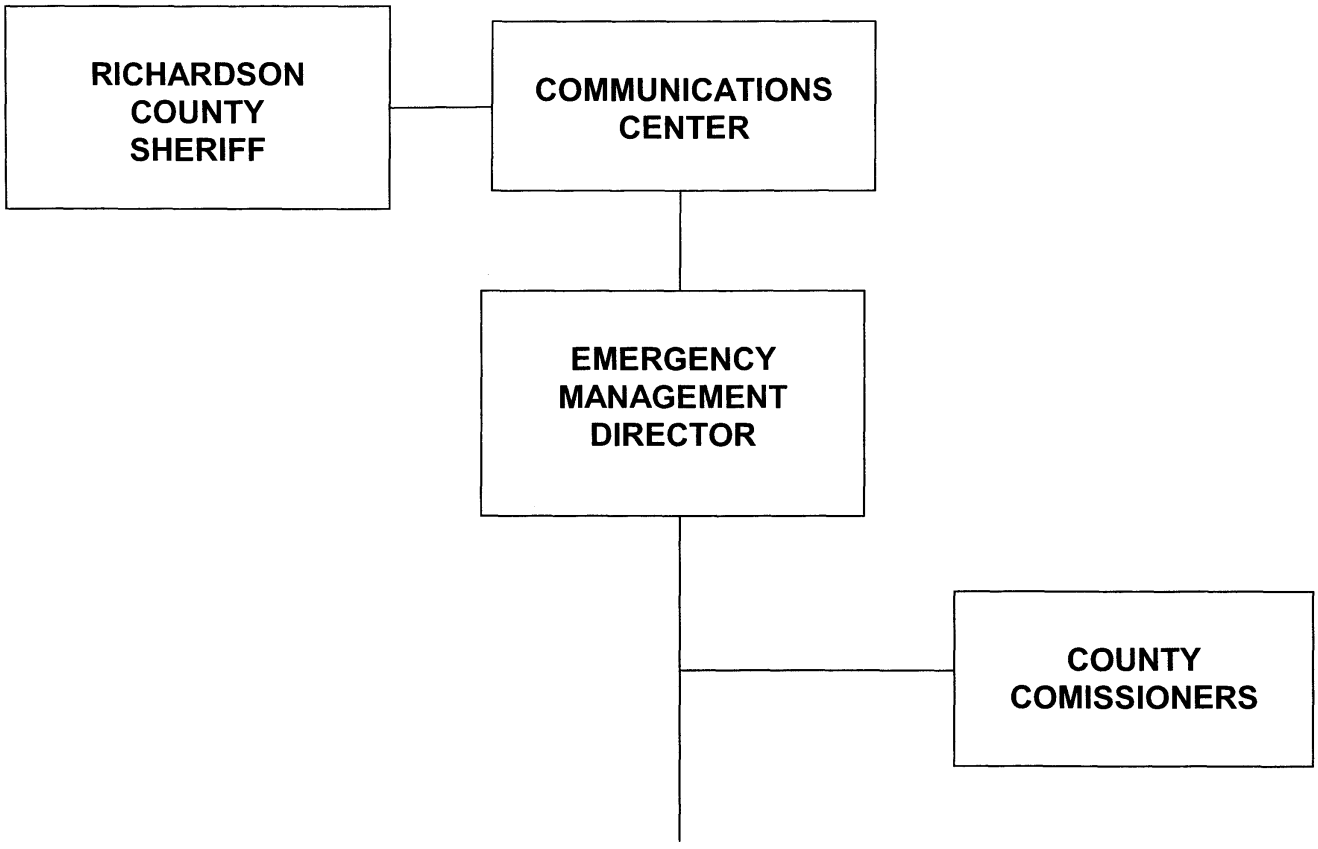
Estimated Duration: _____ (Hours)	Noble Gas: _____ µCi/sec
Start Time: _____	Iodides: N/A
Stop Time: _____	Particulate: N/A

Distance From Plant	Projected Integrated Dose (Rem)		Projected Dose Rate (Rem/hr)	
	TEDE	CDE (Thyroid)	TEDE	CDE (Thyroid)
Site Boundary				
2 Miles				
5 Miles				
10 Miles				

Emergency Director Signature:	Date:	Time:

RADIOLOGICAL EMERGENCY RESPONSE

CALL UP LIST



AS REQUIRED

RADIOLOGICAL OFFICER

COMMUNICATIONS OFFICER

PUBLIC INFORMATION OFFICER

MEDICAL OFFICER

RECEPTION & CARE COORDINATOR

CHAIR – SHUBERT VILLAGE BOARD

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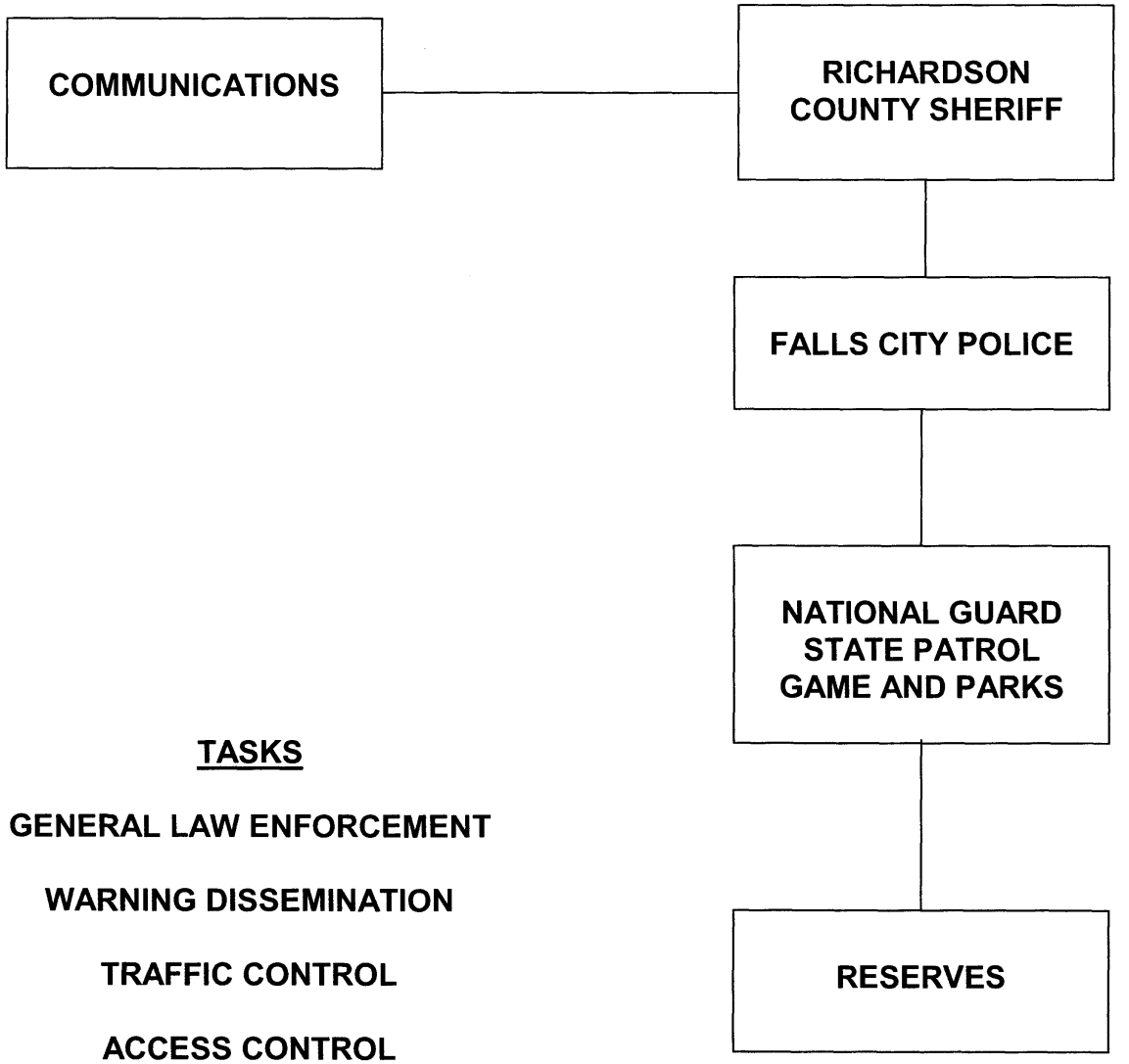
LAW ENFORCEMENT

ORGANIZATION CHART



TASKS

GENERAL LAW ENFORCEMENT

WARNING DISSEMINATION

TRAFFIC CONTROL

ACCESS CONTROL

AREA SECURITY

LAW ENFORCEMENT

I. PURPOSE

This Annex assigns responsibilities and provides information and guidelines for coordination between the law enforcement agencies operating during an emergency at the Cooper Nuclear Station to ensure the safety of all citizens in Richardson County, maintain law and order, and protect public and private property.

II. GENERAL

Law enforcement activities will increase significantly in support of radiological emergency operations. Adequate law enforcement resources and services will often be available through the existing Law Enforcement Agency Mutual Aid Agreements. If local capabilities are over-taxed, support may be obtained from state and federal law enforcement agencies. Areas that may require additional support are:

A. Traffic and crowd control,

B. Evacuation movement and area access control,

C. Notification.

III. ORGANIZATION/RESPONSIBILITIES

A. The Richardson County Sheriff has the responsibility of Law Enforcement Coordination. Local police departments within Richardson County will retain responsibility for law enforcement within their respective jurisdictions. Troopers from the Nebraska State Patrol have a daily presence in Richardson County and will support the local law enforcement requirement. This support will be requested on a timely basis and communications maintained throughout the duration of an emergency. The Nebraska National Guard may be available to provide support subsequent to a Governor's Disaster Proclamation. Interjurisdictional use of resources will be coordinated to ensure the most effective utilization of available personnel to meet all requirements.

B. Specific responsibilities and tasks in Law Enforcement are contained in the Action Guide, Attachment 1, and are divided into the four classes of Emergency Action Levels. Some general areas of responsibility are:

1. Richardson County Sheriff:

   a. Jointly coordinate, with the Richardson County EOC, the planning and operation of law enforcement services within Richardson County.

   b. Coordinate the assignment of law enforcement personnel for security purposes to limit access to hazard areas.

   c. Establish mutual aid agreements/letters of understanding with adjacent jurisdictions, when appropriate.

   d. Coordinate evacuation movement procedures and special contingency planning with local law enforcement.

2. Local Police Departments:

   a. Assist ithe Richardson County Sheriff's Office in major law enforcement field operations under the direction of the Richardson County Sheriff's Office and make recommendations regarding operational activity.

   b. Participate in evacuation movement procedures and special contingency planning in Falls City.

   c. Maintain records of assigned traffic controls, security locations, law enforcement manpower, vehicles, and equipment for Falls City.

3. Nebraska State Patrol:

   a. Assist Richardson County Law Enforcement agencies in major field operations and make recommendations regarding operational activity.

   b. Participate in evacuation movement procedures and special contingency planning.

   c. Maintain records of assigned traffic controls, security locations, available state law enforcement manpower, vehicles, and equipment.

   d. Coordinate Nebraska State Patrol activities and operations during an emergency. The State Patrol may set up its mobile command post at the EOF or in Auburn.

4. Volunteers: Assist law enforcement personnel in evacuation procedures to provide for traffic and crowd control.

5. Nebraska National Guard: Under disaster emergency conditions proclaimed by the Governor, National Guard assistance may be requested through the Nebraska Emergency Management Agency only when local law enforcement capabilities are exceeded. Assistance provided to law enforcement during major emergencies may include:

   a. Support maintenance of security of hazard area.

   b. Providing transportation and communications resources.

   c. Providing aerial reconnaissance of areas.

6. Games and Parks: Responsible for law enforcement activities at state-owned parks, recreational, and wildlife areas.

   a. Provides notification of emergency action levels to all state-owned parks, recreation, and wildlife areas, and recommends appropriate emergency actions.

   b. Coordinates all disaster operations to include damage assessment in state-owned parks, recreation, and wildlife areas.

   c. Provides specialized manpower and equipment to support emergency operations.

   d. As required, provides field radio communications support.

IV. CONCEPT OF OPERATIONS

A. General

Emergency law enforcement operations will be an expansion of normal operations and responsibilities. Each law enforcement agency is responsible for providing law enforcement functions for its jurisdictional area and assisting in similar functions outside its jurisdictional area in accordance with the Law Enforcement Agency Mutual Aid Agreements or as directed by local government officials.

B. Traffic and Crowd Control

Law enforcement agencies have the major responsibility of providing traffic and crowd control in emergency situations to ensure a safe and orderly evacuation movement within Nemaha and Richardson Counties.

1. Law enforcement units will be located at traffic control points on major routes designated as evacuation routes as considered necessary. Traffic control points should be verified against landmark maps to ensure all required points are manned. Attachment 4 is a traffic and access control grid map. Department of Roads will provide equipement and resources (e.g. cones and barricades) as needed

2. The plume EPZ encompasses the Missouri River from mile marker: 516 to mile marker 544. The U.S. Coast Guard will establish and enforce safety zones along the Missouri River, upon notification by the Nebraska Emergency Management Agency.

3. Where possible, evacuation routes will be confined to all weather roads to provide easy accessibility and minimize the potential effects of inclement weather on evacuation operations. The primary route within Richardson County is south on Highway 67 to Highway 73, and then continue on Highway 73 to Falls City. Attachment 2 and map the evacuation routes to Falls City. Attachment 6 & 7 show the Sub Area's population and the estimated times for evacuation. Alternate evacuations routes will be determined by law enforcement as the situation dictates

4. Directives banning parking on emergency routes and selected city streets will be issued at the discretion of the Law Enforcement Coordinator or at the direction of the Board of Comissioners.

5. In addition to the law enforcement resources listed in Attachment 4, the Richardson County Sheriff has the authority to call upon other resources to staff traffic and access control points (example: Richardson County Roads Department).

C. Access Control

Access control points around the perimeter of the restricted/affected area may be manned by law enforcement personnel or barricades may be used at non-strategic points. Control points will be determined at the time of the incident by the Richardson County Sheriff and the Richardson County Emergency Manager.

D. Security

Law enforcement personnel will establish and enforce policies and procedures for movement in disaster/restricted areas.

1. Individual jurisdictions will maintain regular security protection. Law enforcement personnel will establish and enforce policies for movement in restricted areas.

2. Members of the EOC Staff will coordinate emergency worker identification requirements with law enforcement officials. A pass system has been established and will be implemented if conditions warrant.

3. Upon activation of the Emergency Operating Center, a security guard will be posted at the entrance to prohibit unauthorized personnel from entering.

E. Warning

The sounding of warning sirens at SITE AREA EMERGENCY for Nemaha County, Schubert (Richardson County) and the recreation areas of Indian Cave State Park, Steamboat Trace Trail, and the Brownville State Recreation Area *(owned and operated by Brownville, NE*), is the responsibility of the Nemaha County Sheriff's Department, who will be notified via the dedicated (COP) phone by Cooper Nuclear Station. Law enforcement and fire department personnel may be required to support notification and warning requirements by utilizing emergency vehicles with sirens and public address systems to ensure notification of residents in the affected area. The need for implementation of this procedure will depend on the actual situation and will be coordinated with the Board of Comissioners and Emergency Management Director.

F. Extended Operations

1. All law enforcement personnel in Richardson County maybe required to be oncall in a 24-hour capability. An exception will be individuals who are considered by Board of Comissioners to be key personnel in other areas.

2. Mutual aid information will be coordinated through the EOC by the Law Enforcement Coordinator.

G. Evacuation Routes (Traffic Control)

All of the major highways which leave the Auburn area and lead out of Nemaha county have been designated as evacuation routes. Dependent upon the situation, traffic control points will be established on the routes actually being used for evacuation so that an expeditious but controlled traffic flow can be maintained. See Time Estimate Study for Cooper Nuclear Power Station.

H. Reentry (Traffic Access)

Access control points will be established for those persons needing to reenter/exit the "hot" zone. Upon checking in at the EOC and obtaining a pass, the individual will be directed to an access control point. The location of these points will be dependent upon the size of the "hot" zone, but will be tentatively located on Highways 67, 136, or 73. Radiological monitoring/decontamination stations may be established at these control points. Upon exiting the "hot" zone via a control

point, individuals and vehicles may be monitored, and if necessary, decontaminated. If a decontamination station is not established at the control points, then contaminated individuals and vehicles will proceed to the Emergency Worker Decontamination Station in Auburn. Some additional considerations regarding reentry include:

1. The number of individuals allowed reentry may be limited by the ability to monitor/decontaminate individuals and vehicles.

2. To minimize resources spent monitoring/decontaminating vehicles, it may be desirable to leave a "dirty" vehicle in the exclusion zone for use by individuals.

3. Providing escorts to individuals inside the exclusion zone.

V. ADMINISTRATION AND LOGISTICS

A. Training

Members of all departments are encouraged to participate in radiological training.

B. Exercises

Law enforcement personnel will participate in exercises designed to demonstrate the feasibility of this Plan.

C. Plan Maintenance

Law Enforcement Officials should meet annually to review/revise this portion of the plan. The Emergency Management Director will update and/or revise this Annex based on recommendations of law enforcement officials. All maps will be updated by NEMA GIS. GIS normally has the most up-to-date information for printing out new maps. If additional information comes available through the U.S. census, annual review of emergency public information brochures, nuclear power station evacuation time studies, etc. it will also be used to update map.

LIST OF ATTACHMENTS

Attachment #	Item	Page
1	County Sheriff Action Guide	C-9

2	Designated Evacuation Routes	C-10
3	Law Enforcement Resources	C-13
4	Traffic and Access Control Points and Map	C-14
5	Population Map	C-18
6	ETE Chart	C-19

County Sheriff

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: Once notified by dispatcher, no further action required.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: (1) Determine availability of resources which may be needed.
(2) Alert personnel to be on a stand-by status.
(3) Coordinate communications requirements with EOC Communications Officer.
(4) Identify potential traffic and security problems and determine law enforcement requirements.
(5) Obtain KI from Emergency Management Director.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Ensure warning sirens activated and EAS message released.
(2) Review evacuation routes and traffic control points and coordinate routing with Richardson County EOC and Nemaha County EOC.
(3) Coordinate the alert and evacuation of "special needs" individuals with the Reception & Care Coordinator.
(4) Coordinate traffic control and roadblock material/equipment requirements with Public Works and Roads Departments.
(5) Inform PIO of evacuation routes to be used.
(6) Maintain status record of manpower, vehicles, and equipment.
(7) Provide reports of operational status to Executive Group.
(8) Brief/issue KI to law enforcement designees.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

County Sheriff

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required:
(1) When directed, implement evacuation.
(2) Recommend emergency parking restriction on evacuation routes, if appropriate.
(3) Direct placement of barricade/roadblocks, as required.
(4) Determine if warning system needs supplemented with patrol cars, fire engines.
(5) Ensure "special needs" individuals evacuated.
(6) Advise Emergency Management Director of state support requirements (NSP, National Guard), if necessary.
(7) Coordinate with Reception & Care Coordinator on which facilities are being opened for congregate care.
(8) Provide traffic control assistance from registration center to congregate care facilities.
(9) Provide reports of traffic movement and operational status to Executive Group.

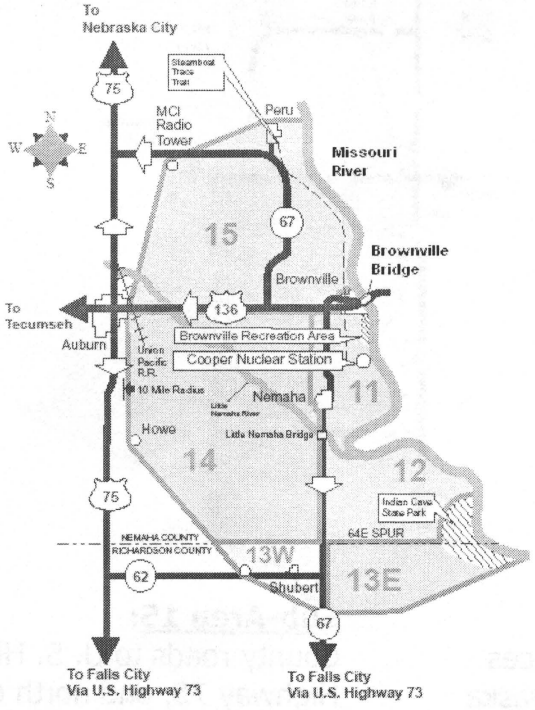
Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

POST EMERGENCY PHASE: Events that begin immediately after evacuation procedures have been implemented. Consists of Relocation, Reentry, and Return.

Actions Required:
(1) Coordinate with Nemaha County law enforcement on return routing.
(2) Establish traffic control for return of evacuees and resources.
(3) Inform PIO of return routes.
(4) Provide Executive Group with report of law enforcement operations (including manpower and financial reports).
(5) Terminate emergency operations.

COOPER NUCLEAR STATION

DESIGNATED EVACUATION ROUTES



Primary Routes to Reception Facilities

ALLOCATION

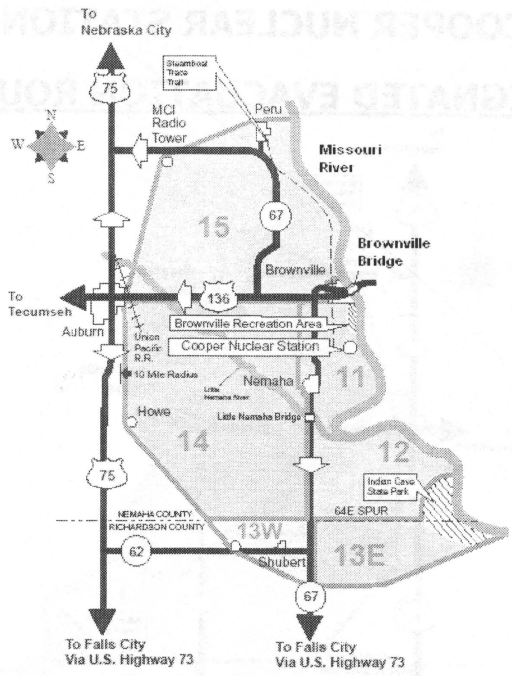
There are 550 congregate care spaces identified in Falls City, Nebraska

Sub-Area 11:
County roads to U. S. Highway 75 or Nebraska Highway 67, then south to U. S. Highway 73, and south U. S. Highway 73 to Falls City, NE

Sub-Area 12:
County roads to U. S. Highway 75 or Nebraska Highway 67, then south to U. S. Highway 73, and south on U. S. Highway 73 to Falls City, NE

Sub-Area 13 East and 13 West:
County roads to U. S. Highway 75 or Nebraska Highway 67, then south to U. S. Highway 73, and south on U. S. Highway 73 to Falls City, NE

Sub-Area 14:
County roads to U. S. Highway 75 or Nebraska Highway 67, then south to U. S. Highway 73, and south on U. S. Highway 73 to Falls City, NE



An additional 823 congregate care spaces are available in Nebraska City, NE.

Sub-Area 15:
County roads to U. S. Highway 136 west to U. S. Highway 75, and north on U. S. Highway 75 to Nebraska City, NE.

or

County roads to Nebraska Highway 67, then proceed north and west to U.S. Highway 75 and north on U. S. Highway 75 to Nebraska City, NE

EVACUATION TIME FACTORS

Resident 10-mile EPZ Population:	1,800
School 10-mile EPZ Population:	1,000
Transient 10-mile EPZ Population:	622
Non-Resident Employees 10-mile EPZ Population:	591
Total 10-mile EPZ Population:	4,013
Resident Vehicles in 10-mile EPZ:	1,082
School Student Vehicles in 10-mile EPZ:	824
Transient Vehicles in 10-mile EPZ:	261
Non-Resident Employee	533
Total Vehicles in 10-mile EPZ:	2,700

Drive Time From Edge of EPZ:

To Falls City:	24 Minutes
To Nebraska City:	39 Minutes

Average of 1,671 vehicles per lane (one lane) per hour
1.68 persons per vehicle
Average speed approx.. 45 mph (adverse conditions)
Traffic capacity in 10-mile EPZ is 21,725 vehicles per hour

Source: December 2012 CNS Time Evacuation Stud

RICHARDSON COUNTY
LAW ENFORCEMENT RESOURCES

SHERIFF'S DEPARTMENT

Sheriff.....1
Deputies.....6
Dispatchers/Communicators.....9
Vehicles.....7
Radio Equipped.....7

FALLS CITY POLICE DEPARTMENT

Police Chief.....1
Officers.....8
Vehicles.....4
Radio Equipped.....4

COOPER NUCLEAR STATION

TRAFFIC CONTROL REQUIREMENTS

Traffic control points will be established through coordination between the Nemaha County Sheriff, the Richardson County Sheriff, and the Nebraska State Patrol. Precise location of control points will be as required by the specific situation and hazard area as defined at the time of any incident. Designation of individual control points will be in accordance with the Cooper Nuclear Station Traffic Control Map.

Potential traffic control points as annotated on the maps are:

For Nemaha County

Control Point	Location	Intersection	Chart of Roads & Avenues		
			1	639	Avenue
2-1	I - 10	730 Road and NE Highway 67	2	640	Avenue
2-2	J - 9	U.S. Highway 136 and 647 Avenue	3	641	Avenue
2-3	K - 9	728 Road and 647 Avenue	4	642	Avenue
2-4	M - 9	726 Road and 647 Avenue	5	643	Avenue
2-5	M/N - 9	725A Road and 647 Avenue	6	644	Avenue
2-6	N/O -10	724A Road and NE Highway 67	7	645	Avenue
3-1	O - 10	724 Road and NE Highway 67	8	646	Avenue
3-2	P - 10	723 Road and NE Highway 67	9	647	Avenue
3-3	Q - 10	722 Road and NE Highway 67	10	67	NE Highway
3-4	R - 10	721 Road and NE Highway 67	11	649	Avenue
3-5	S - 10	720 Road and NE Highway 67	12	650	Avenue
4-2	J - 3	U.S. Highway 136 and 641 Avenue	13	651	Avenue
4-3	J - 4	U.S. Highway 136 and 642 Avenue	14	652	Avenue
4-4	J - 5	U.S. Highway 136 and 643 Avenue	15	653	Avenue
4-5	J - 5/6	U.S. Highway 136 and 643A Avenue	16	654	Avenue
4-6	J - 6	U.S. Highway 136 and 644 Avenue	17	655	Avenue
4-7	J - 7	U.S. Highway 136 and 645 Avenue	18	656	Avenue
4-8	J - 8	U.S. Highway 136 and 646 Avenue	19	657	Avenue
5-1	S - 5	720 Road and 643 Avenue	A	738	Road
5-2	S - 6	720 Road and 644 Avenue	B	737	Road
5-3	S - 7	720 Road and 645 Avenue	C	736	Road
5-4	S - 8	720 Road and 646 Avenue	D	735	Road
5-5	S - 9	720 Road and 647 Avenue	E	734	Road
5-6	S - 11	720 Road and 649 Avenue	F	733	Road

/ - indicates midpoint between numbers or letters

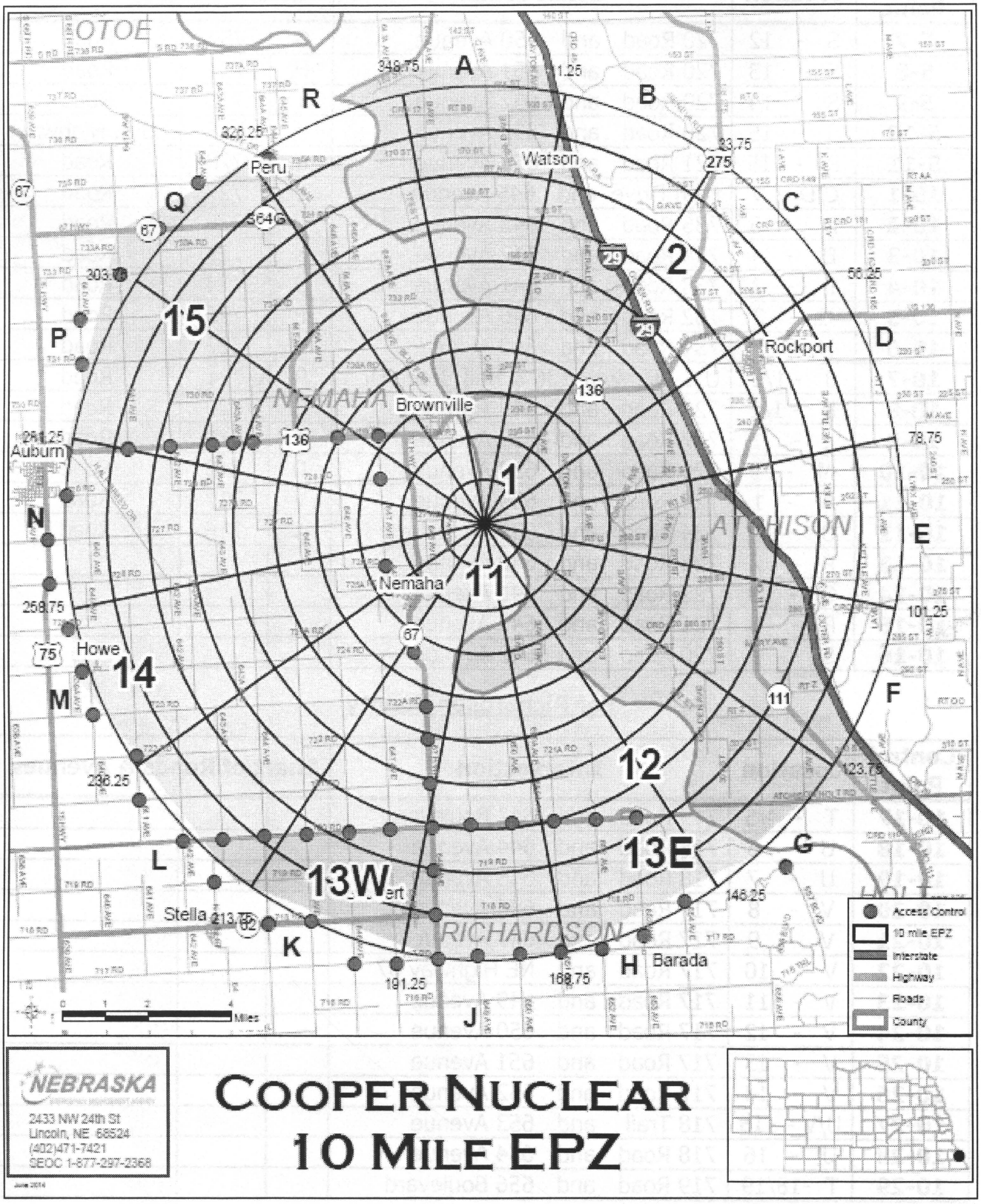
Control Point	Location	Intersection	Chart of Roads & Avenues		
5-7	S - 12	720 Road and 650 Avenue	G	732	Road
5-8	S - 13	720 Road and 651 Avenue	H	731	Road
5-9	S - 14	720 Road and 652 Avenue	I	730	Road
5-10	S - 15	720 Road and 653 Avenue	J	136	U.S. Highway
5-11	R - 15	721 Road and 653 Avenue	K	728	Road
10-1	C/D - 7	Bluff Drive and 645 Avenue	L	727	Road
10-2	D - 5	735 Road and 643 Avenue	M	726	Road
10-3	E - 4	734 Road and 642 Avenue	N	725	Road
10-4	F - 3	733 Road and 641 Avenue	O	724	Road
10-5	G - 2	732 Road and 640 Avenue	P	723	Road
10-6	H - 2	731 Road and 640 Avenue	Q	722	Road
10-7	J - 1/2	U.S. Highway 136 & Half Breed Dr.	R	721	Road
10-8	K - 1/2	728 Road and 640 Avenue	S	720	Road
10-9	L - 1	727 Road and 639 Avenue	T	719	Road
10-10	M - 1	726 Road and 639 Avenue	U	718	Road
10-11	N - 1	725 Road and 639 Avenue	V	717	Road
10-12	O - 1/2	724 Road and 639A Avenue	W	716	Road
10-13	P - 2	723 Road and 640 Avenue			
10-14	Q - 3	722 Road and 641 Avenue			
10-15	R - 3	721 Road and 641 Avenue			
10-16	S - 4	720 Road and 642 Avenue			

For Richardson County

Control Point	Location	Intersection	Chart of Roads & Avenues		
10-17	T - 4/5	719 Road and 642 Boulevard			
10-18	U - 6	718 Road and 644 Avenue			
10-19	U - 7	718 Road and 645 Avenue			
10-20	V - 8	717 Road and 646 Avenue			
10-21	V - 9	717 Road and 647 Avenue			
10-22	V - 10	717 Road and NE Highway 67			
10-23	V - 11	717 Road and 649 Avenue			
10-24	V - 12	717 Road and 650 Avenue			
10-25	V - 13	717 Road and 651 Avenue			
10-26	V - 14	717 Road and 652 Avenue			
10-27	U/V - 15	718 Trail and 653 Avenue			
10-28	U - 16	718 Road and 654 Avenue			
10-29	T -18/19	719 Road and 656 Boulevard			

/ - indicates midpoint between numbers or letters

TRAFFIC CONTROL POINTS



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COOPER NUCLEAR STATION

Sub-Area Population Estimates

SUB AREA #	ESTIMATED POPULATION	EVACUATION TIME ESTIMATED			
		Good Weather 90% of Pop.	Rainy Weather 90% of Pop.	Snowy Weather 90% of Pop.	100% Of Pop.
11	633	1:20	1:20	1:25	6:10
12	31	2:15	2:25	2:30	6:10
13 East	650	2:20	2:20	2:20	6:10
13 West	200	2:10	2:10	2:10	6:10
14	390	1:35	1:35	1:35	6:10
15	1,109	2:25	2:25	2:30	6:10
Total	4,013	2:03	12.03	12.05	6:10

Evacuation Time estimates are based on the KLD Engineering, P.C. 43 Corporate Drive, Hauppauge, NY *Final "Evacuation Time Estimate" Study for Cooper Nuclear Station*, November 2012.

Evacuation times listed are based on worst case for Normal, Rain and Snow conditions.

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FIRE AND RESCUE

ORGANIZATION CHART

SUPPORT FIRE AND RESCUE ACTIVITIES

EMERGENCY SUPPORT TO POWER PLANT

EVACUATION NOTIFICATION

SAFETY INSPECTIONS

MOVEMENT OF NON-AMBULATORY PATIENTS

FIRE AND RESCUE

I. PURPOSE

The purpose of this Annex is to provide information and guidelines for a coordinated response for fire services during, or as a result of, a radiological emergency at the Cooper Nuclear Station.

II. GENERAL

Richardson County has nine fire departments, and two rescue squads. All fire departments in the county povide 24-hour response capability.

III. ORGANIZATION/RESPONSIBILITIES

A. The Fire Chief of each jurisdiction is responsible for coordination, planning, training, and the development of operational policies for that jurisdiction.

B. Specific responsibilities and tasks in Fire and Rescue are contained in the Action Guide, Attachment 1, and are divided into the four classes of Emergency Action Levels. Some general responsibilities of the Richardson County Fire Coordinator are:

1. Develop the operational policies of the departments.

2. Coordinate and direct volunteers assisting the fire departments.

3. Coordinate fire inspections for congregate care facilities to ascertain the facility is safe for occupancy.

IV. CONCEPT OF OPERATIONS

A. The primary responsibility of the Fire Services is prevention and suppression of fires.

B. The Fire Chief has the authority to utilize the fire departments' personnel and equipment to support other agencies and organizations during an emergency provided that the primary responsibilities (in A. above) are met. Areas of possible support include:

1. Law Enforcement: Traffic and crowd control.

2. Health and Medical: First aid stations and transportation to assist persons with "Special Needs".
3. Rescue: Auburn rescue squad (primary) and Midwest Medical Transport (backup) respond to nuclear power plant radiological accident support requests.

4. Fire Surveillance and Suppression: Services in an evacuated area.

5. Safety Inspections: Assists in residential safety inspections during recovery/reentry operations.

LIST OF ATTACHMENTS

Attachment #	Item	Page
1	Fire Chiefs Action Guide	D-4
2	Fire and Rescue Equipment	D-6

Fire Chiefs Action Guide

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: (1) Continue to provide for the prevention and suppression of fires, rescue services, and respond to hazardous materials incidents.
(2) Provide assistance to Cooper Nuclear Station as requested.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: (1) Provide assistance to Cooper Nuclear Station as requested.
(2) Alert personnel to stand-by status.
(3) Determine availability of resources which may be needed.
(4) Review manpower requirements and mutual aid agreements.
(5) Coordinate with EOC Staff on requirements which Fire Services may be able to support.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Check readiness of Fire Services radiological detection equipment, including dosimeters.
(2) Assist in coordination of special transportation requirements for "special needs" groups (i.e. handicapped, infirmed, elderly, etc.).
(3) Under direction of the Radiological Officer, brief/issue KI to emergency workers.
(4) Coordinate with RO to provide refresher training in use of radiological monitoring equipment and decontamination procedures.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

Fire Chiefs' Action Guide

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required: (1) Activate and deploy personnel.
(2) If necessary, coordinate with EOC to supplement emergency warning with fire engines.
(3) Assist with radiological monitoring and decontamination of evacuees, as possible.
(4) Support vehicle decontamination activities.
(5) Assist law enforcement with traffic control, as possible.
(6) Determine what functions Fire Services are able to support and assign personnel.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

POST EMERGENCY PHASE: Events that begin immediately after evacuation procedures have been implemented. Consists of Relocation, Reentry, and Return.

Actions Required: (1) Accomplish equipment checks and maintenance on all equipment.
(2) Replenish depleted supplies.
(3) Continue radiological support, as required.
(4) Assist law enforcement with traffic control, as possible.
(5) Accomplish administrative and fiscal reports, as required.
(6) Assist with transportation of "special needs" groups, as possible.
(7) Terminate emergency operations.

Fire Equipment

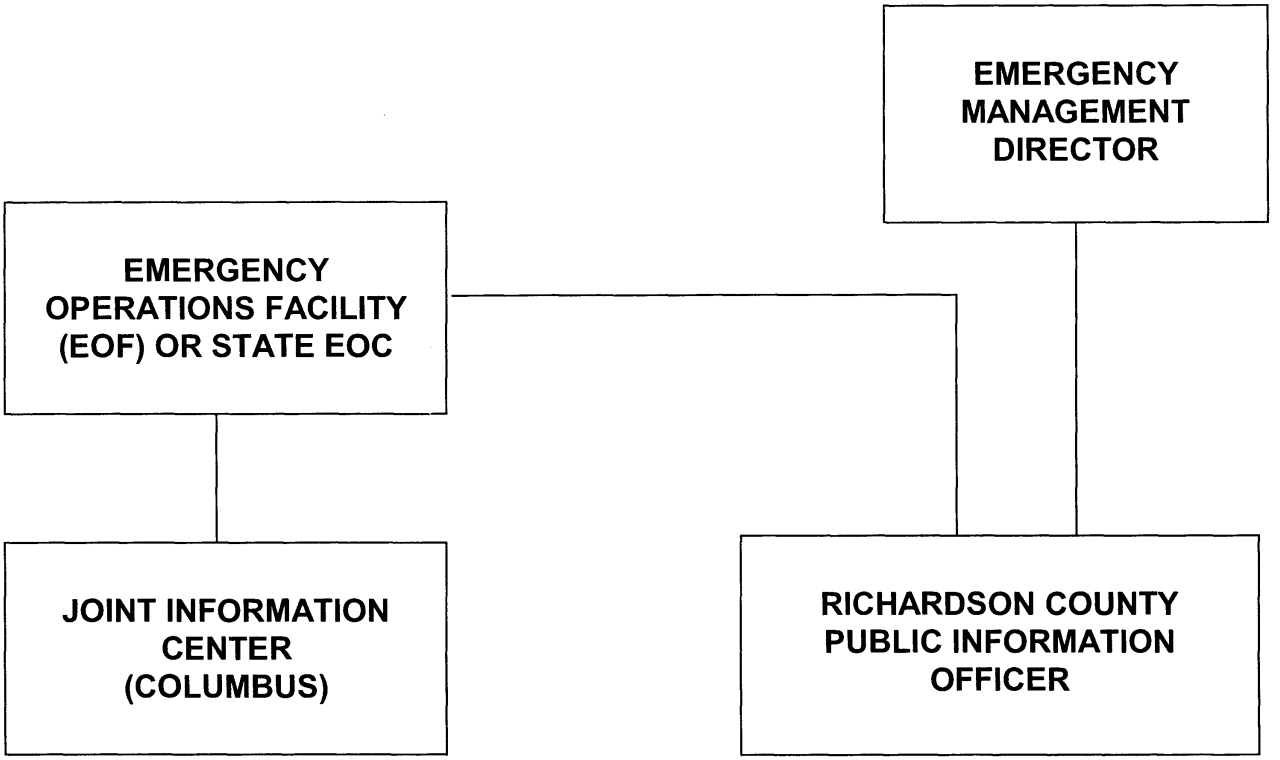
	Dawson	Falls City	Falls City Rural	Humboldt & Humboldt Rural	Rulo	Salem	Shubert	Stella	Verdon	TOTAL
Vehicles										
Aerials	0	1	0	0	0	0	0	0	0	**1**
Pumpers	1	2	1	2	1	1	1	2	1	**12**
Tankers: >1000 gals	1	0	1	2	0	0	0	0	0	**4**
<1000 gals	0	0	0	0	0	0	0	1	1	**2**
4 X 4 Grass Fire Trucks	1	0	1	2	0	0	0	1	1	**6**
Rescue Squad	0	0	0	0	0	0	0	0	1*	**1**
Misc. Equipment										
Extraction Equipment	0	0	0	1	0	0	0	0	0	**1**
Flood Lights	1	2	0	3	0	0	0	1	0	**7**

*** Quick Response unit only—cannot transport.**

n/a = no information available

PUBLIC INFORMATION

ORGANIZATION CHART



TASKS

COORDINATED PUBLIC INFORMATION ADVISORIES

WARNING NOTIFICATION OF PUBLIC

PROTECTIVE ACTION INFORMATION

EMERGENCY PUBLIC INFORMATION

I. PURPOSE

The purpose of this Annex is to provide guidelines and identify media outlets for rapid dissemination of accurate and coordinated emergency public information.

II. GENERAL

A. The National Weather Service NWS, is the Primary Alert Agency for the Nebraska Emergency Alert System Operation Area 1. A list of all media outlets for Southeast Nebraska can be found in Annex E Attachment 2.

B. Readily accessible news media - printed, radio and television broadcasts - is available to Richardson County authorities for rapid dissemination of emergency public information. A list of all media outlets that are part of the Local Emergency Alert System Operational Area Plan for Southeast Nebraska can be found in Annex E Attachment 2.

III. ORGANIZATION/RESPONSIBILITIES

A. The Public Information Officer (PIO) is appointed by the Emergency Management Director and is the official spokesperson for the Board of Commissioners and is a member of the EOC Staff.

B. The PIO is responsible for the collection, coordination, and dissemination of all emergency public information within Richardson County.

C. Specific responsibilities and tasks in Emergency Public Information are contained in the Action Guide, Attachment 1, and are divided into the four classes of Emergency Action Levels.

IV. CONCEPT OF OPERATIONS

A. The Public Information Officer will collect, correlate, and authenticate all emergency information pertinent to Richardson County, and develop material for release to the media and the general public.

B. Local public information concerning protective action measures is authenticated at the State EOC prior to broadcast or publication.

C. The Joint Information Center (JIC), in Auburn, NE, is the official release point for all information regarding an emergency at the Cooper Nuclear Station. The official spokespersons from NPPD, local, state and federal governments will issue coordinated news releases and conduct media briefings from the JIC.

1. For Cooper Nuclear Station (CNS), the JIC is co-located with the Emergency Operations Facility (EOF) at 902 Central Avenue, Auburn, NE

2. The CNS JIC is located within a large room within the CNS EOF. Nebraska Public Power District (NPPD), Nebraska and Missouri public information staffs are all located within this room which has permanent workstations with dedicated phone and internet capability. The NEMA JIC staff brings along computer and printer equipment as well as all needed reference material. Public Inquiry phone lines are answered at the utility's corporate headquarters in Columbus, NE. and any questions pertaining to the State of Nebraska are relayed to the JIC. Media briefings are held in the auditorium located at the front of the facility.

D. Information may be released to the media by the Richardson County PIO regarding Richardson County activities only. These releases should be coordinated with the JIC and State EOC to ensure that the public receives the same information from all news media.

E. Public Inquiry (Rumor Control) will be established at the JIC, Auburn, within the first 24 hours. A toll-free telephone number (Hotline) will be established in Norfolk, within the first 8 hours of a SITE AREA EMERGENCY and the media will broadcast this number to the public. This will enable the public to clarify instructions and/or direct questions to official sources..

F. The EOC will monitor broadcast media to ensure accurate and complete information is being reported to the public.

G. The PIO, or a designated staff member, will keep registration center and congregate care officials updated so that evacuees within Richardson County will have up-to-date emergency information and instructions.

LIST OF ATTACHMENTS

Attachment #	Item	Page
1	Public Information Officer Action Guide	E-4
2	News Media Listing	E-5

Public Information Officer

NOTIFICATION OF UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: No action required.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: Coordinate with State and Cooper Nuclear Station on press releases and media briefings.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Continue to coordinate with State and Cooper Nuclear Station.
(2) Liaison with Rumor Control/Public Inquiry at JIC.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required: Same as at SITE AREA EMERGENCY

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

News Media Listing for Southeast Nebraska

Company	Address	Phone #
Newspapers		
Nemaha County Herald Newspaper	Box 250 830 Central Ave Auburn, NE 68305	(402) 274-3185
Humboldt Standard	Box 627 Falls City, NE 68376	(402) 862-2200
Nebraska City- Newspaper	806 Central Ave Nebraska City, NE 68410	(402) 873-3334
Falls City Journal	1810 Harlan St Nebraska City, NE 68355	(402) 245-2431
Television Stations		
KQTV - Channel 2	4000 Faraon St. Joseph, MO 64506	(816) 364-2222
KMTV - Channel 3	10714 Mockingbird Drive Omaha, NE 68127	(402) 592-3333
WOWT - Channel 6	3501 Farnam Omaha, NE 68131	(402) 346-6666 Mike Fass 402-618-8075
KETV - Channel 7	27th & Douglas St. Omaha, NE 68131	(402) 345-7777
KLKN - Channel 8	3240 South 10th St. Lincoln, NE 68502	(402) 434-8000
KOLN/KGIN TV - Channels 10/11	40th and W Streets Lincoln, NE 68503	(402) 467-4321
KXVO - Channel 15 KPTM - Channel 42	4625 Farnam Street Omaha, NE 68131	(402) 558-4200
Time Warner Cable Nebraska City	109 N 6 Nebraska City, NE 68410	(402) 873-9196
Time Warner Cable - Auburn	1304 Courthouse Ave. Auburn, NE 68305	(402) 274-5072
Time Warner Cable – Falls City	1816 Stone St. Falls City, NE 68355	(402) 245-2863

News Media Listing for Southeast Nebraska, continued

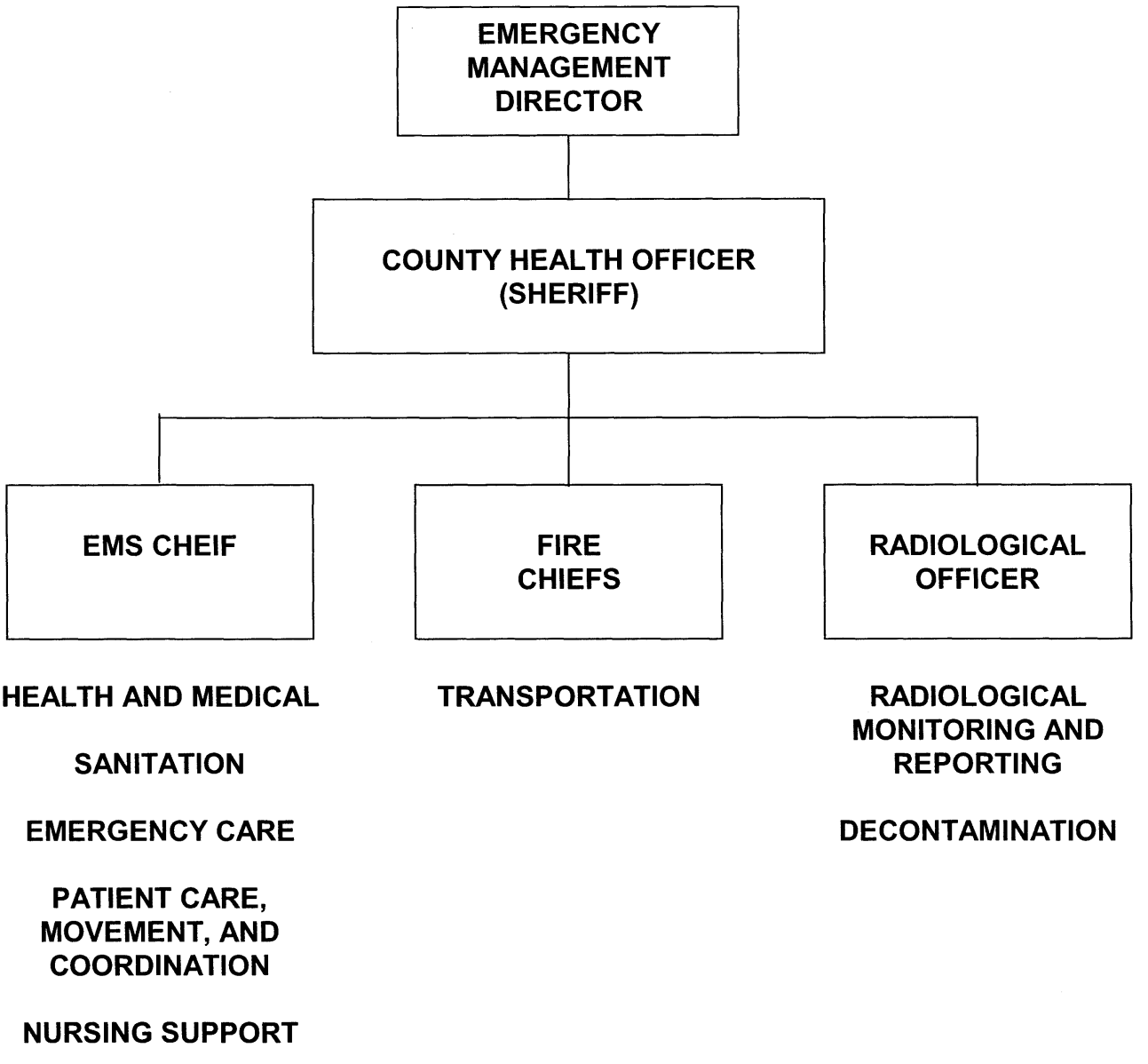
Company and City	Frequency	Phone #
Radio Stations		
*KGOR Omaha, NE	99.9	(402)-551-5467
KFAB-AM (24hrs) Omaha, NE	1110 kHz	(402) 556-5060
KNCY-FM Nebraska City, NE	94.7 MHz 105.5 MHz	(402) 274-1055
KTNC-AM KLZA-FM Falls City, NE	1230 kHz 101.3 MHz	(402) 245-2453 (402) 245-6010
KNCY-AM Nebraska City, NE	1600 kHz	(402) 873-3348
Emergency Alerting System		
**National Weather Service Valley, NE Contact information for the NWS is maintained in the *Nuclear Station Emergency Alert System (EAS) Standard Operating Guide (SOG)*	NOAA WEATHER RADIO	(402) 359-5166 (800) 452-9074

* LP-1 radio station for EAS Operational Area 1

** The 24-hour a day agency which will broadcast the Initial NWS Message and the 2nd NWS EAS Message

HEALTH AND MEDICAL

ORGANIZATION CHART



HEALTH AND MEDICAL

I. PURPOSE

To provide information and guidelines for an adequate response to a radiological incident at Cooper Nuclear Station and to provide reasonable assurance that government efforts will be directed toward mitigating the consequences of a radiological emergency and that appropriate measures will be taken to protect health and safety of Richardson County citizens.

II. GENERAL

A. An incident at the Cooper Nuclear Station could affect the public off-site. In the unlikely event this would occur, Richardson County officials and officials at Schubert would have an important role in protecting the health and safety of the public. During such an incident, state emergency response would be automatic and would be available to support local requirements if called upon by local government. See the Nebraska Radiological Emergency Response Plan for Nuclear Power Plant Incidents.

B. The 10-mile EPZ for the Cooper Nuclear Station affects only a small portion of Richardson County. The town of Schubert is the only town located in the EPZ.

C. The Area Administrator of the Department of Social Services shall compile and maintain a current listing of persons with "special needs" residing within the ten-mile EPZ. These persons are affected by various impairments requiring special consideration by emergency response organizations implementing notification and warning procedures and protective actions, such as evacuation or sheltering in place. A listing identifying these persons, their affliction, and their residential addresses shall be provided to the Emergency Manager in the event of an emergency so appropriate assistance can be provided. This listing is confidential in nature and is controlled by the Richardson County Emergency Manager. Information contained therein is not to be divulged except for official response planning purposes or as the needs of an emergency situation would dictate.

III. ORGANIZATION AND RESPONSIBILITIES

A. Medical and Public Health operations require close coordination to fulfill the overall responsibility of safeguarding and minimizing any adverse health effects that may occur as a result of a radiological incident at the Cooper Nuclear Station.

B. State DHHS, Div. of Public Health is responsible for:

1. Off-site monitoring activities, in conjunction with plant monitor personnel.

2. Accomplishment of all required aerial monitoring, air sampling and water sampling. See Attachment 16 of this Annex for map of predetermined sampling points.

3. Establish a point for receiving sample media and for field monitoring data. Providing for analysis, dose evaluation and medical follow-up when required.

C. Richardson County is responsible for:

1. Providing fully trained and qualified radiological monitors and an individual to provide logistical support to operate the decontamination station.

2. Providing facilities as required for the establishment of decontamination stations.

3. Local and back-up Hospital Services

a. Nemaha County Hospital is the primary hospital service facility Refer to the State RERP Annex A Attachment 5 for facility capabilities and additional hospital services.

b. University Medical Center in Omaha is the back-up facility. Refer to the State RERP Annex A Attachment 5 for facility capabilities and additional hospital services.

D. Specific responsibilities and tasks are set forth in the Emergency Action Guides (Attachment 1). Some general responsibilities are:

1. Emergency Management Director

The Emergency Management Director, through the Radiological Officer, is responsible for establishing a cadre of trained monitors and monitoring instructors and for establishing the capability to rapidly expand the monitoring force through accelerated training during an emergency.

a. Monitors: These are personnel who, by the nature of their job or specialized training, could be considered first responders. They are trained to identify the radiological environment in order to control the exposure of emergency response personnel who conduct emergency operations.

b. These include, but are not limited to, personnel from fire services, law enforcement, and vital facilities including hospitals, utilities, essential industries, and trained volunteers.

2. Radiological Officer (RO)

   a. The Radiological Officer (RO) is the technical manager of the Radiological Protection Program (RPP). The RO works with the Richardson County Emergency Management Director, the Nebraska Emergency Management Agency, and DHHS, Div. of Public Health to develop and maintain a radiological program in the jurisdiction. This will include a procedure for storage, distribution, maintenance, and routine operational testing of radiological instruments. In addition to RPP planning, the RO will be involved in recruiting and training Radiological Monitors (RMs), appointing and training a Decontamination Specialist, and other radiological staff personnel.

   b. Initially, the RO should operate from the Emergency Operating Center (EOC) and direct the radiological activities, assess the community radiological situation and make technical recommendations to the Emergency Management Director or the elected officials on the EOC Staff. To meet these requirements the RO must be:

      1) Knowledgeable about the physical and biological effects of radiation on humans,

      2) Familiar with radiation measurement and reporting procedures,

      3) Capable of evaluating radiation effects on people and other resources.

3. County Health Officer

   a. The County Health Officer is, by law, the County Sheriff and is a member of the EOC staff.

   b. The County Health Officer is responsible for coordinating activities required to safeguard public health. He/she will act as a liaison between public health officials and the local government.

   c. The County Health Officer will coordinate with the Emergency Management Director, County Emergency Board, and other agencies as applicable.

   d. The County Health Officer will appoint a supporting staff, as needed, to fulfill the responsibilities and assure 24-hour operational capabilities.

4. EMS Chief

   a. The EMS Chief is appointed by the Chief Executive Officers of Richardson County and is a member of the EOC support staff.

b. The EMS Chief will act as a liaison between the medical community and the local government.

c. The EMS Chief will assist the Emergency Management Director in coordinating resources to support evacuation requirements of "special needs" residents.

d. The EMS Chief will appoint a support staff as needed to fulfill the responsibilities and assure 24-hour operational capabilities.

IV. CONCEPT OF OPERATIONS

A. Radiological Monitoring:

1. DHHS, Div. of Public Health is responsible for hazard assessment, radiological field monitoring, and issuing recommendations for protective actions.

2. All evacuees entering Richardson County will be directed to the Falls City Middle School for radiological monitoring. The Radiological Officer will ensure sufficient personnel and equipment are available to monitor 20% of the total population within a 12-hour period. Vehicles will be monitored and decontaminated, if necessary, when evacuees have been fully taken care of.

3. During a nuclear power plant emergency situation, radiological monitoring resources may require additional support. The first level of response will be from the nuclear power plant radiological monitoring teams and DHHS, Div. of Public Health monitoring teams. If the capabilities of power plant and state monitoring resources are exceeded, DHHS, Div. of Public Health may recommend to the Governor that federal support be requested under the Federal Radiological Emergency Response Plan (FRERP) for Peacetime Emergencies.

4. In the event of injury endangering life or limb, medical treatment always precedes decontamination procedures.

5. All contaminated objects (clothing, instruments, personal items, etc.) will be labeled with the date, and name and address of the decontaminated person. These objects should be stored in container which is labeled “Radioactive: DO NOT DISCARD”.

B. Dosimetry for Emergency Workers

1. Personnel responding to an emergency at the Cooper Nuclear Station may be required to perform their emergency service in a radiation hazard area. Because of this, it is imperative that each emergency worker responding be equipped with dosimetry and is instructed to read it at least every thirty (30) minutes and record the reading on his or her Emergency Worker Dose Record. Refer to the emergency worker handout for instruction on use of PRD and recording readings.

2. The Richardson County Emergency Management Director will be responsible for issuing and controlling self-reading and permanent record (TLDs) dosimetry for emergency response personnel involving the Sheriff's Department, police, fire services, ambulance service, nurses, doctors, paramedics, radiological monitors, and school bus drivers. The functions may be delegated to the local Radiological Officer (RO) and will be returned to the RO at the end of the worker's shift.

3. The RO, or designee, supervising the decontamination station will issue and control permanent record (TLDs) and self-reading dosimetry for all other local emergency personnel who may be required to enter the hazard area. The self-reading dosimetry will be provided from local stock by the Emergency Management Director or Radiological Officer.

4. The ER Manager, DHHS, Div. of Public Health will issue and control dosimetry for personnel who operate from the State Field Command Post and the State Field Monitoring Teams that operate in the Plume Exposure EPZ.

C. Allowable Exposure

1. The controlling officials identified in B.1, B.2, and B.3 above will be responsible for tracking exposure readings of emergency workers. The allowable exposure under EPA PAG's for the general public will apply. If it is determined that a mission may require a monitor to exceed this allowable exposure, the ER Manager, DHHS, Div. of Public Health will advise the Governor or the Authorized Representative of the benefits and risks involved and methods to control and/or mitigate excessive exposure. It is the decision of the Governor, or the Authorized Representative, based on the health recommendations of the DHHS, Div. of Public Health to approve or disapprove the use of the Monitor for this mission. To the greatest extent possible, the monitor shall be advised of all pertinent benefits, risks, and precautions associated with this mission. In any case the exposure "will not exceed" the following maximum:

   a. For emergency workers - 1 REM whole body.

   b. For lifesaving measures $\geq$ 2.5 REM whole body volunteer basis only and approval by the Governor, no limit on thyroid.

   c. 100 mR is the turn-back exposure limit and should be immediately reported up the chain-of-command to DHHS, Div. of Public Health.

2. Based on the above *dosage* guidance, DHHS, Div. of Public Health has set the following *exposure* limits for Emergency Workers:

Dosimetry Limit	Activity
500 mR	Turn back reading. Maximum allowed reading for performing routine Emergency Worker assignments. Once this exposure is reached, Workers should report to the Radiological Officer for further instructions. Call Supervisor for further instructions. Dosimeter reading up to and including 500mR allowed for performing Emergency Worker Assignments
1 R	Turn-back dose for Emergency workers with no means of communication with supervisor. Maximum reading allowed for assignments involving protection of valuable property.
2.5 R	Maximum reading allowed for Workers when assignments involving lifesaving protection of a large population

Note: mR-milliroentgen R-Roentgen 1000 mR=1R

3. If it is determined that an individual has exceeded the limits established above, he/she should be directed to the decontamination station for decontamination(refer to Annex F Attachment 5 for map), and the Richardson County EOC and DHHS, Div. of Public Health will be advised through the State EOC.

4. Prior to <u>any</u> emergency use of dosimeters, they will be re-zeroed using the CD V-750 charger, in order to assure accurate dose readings.

5. See Annex A, State Plan for additional information on dosimetry for emergency workers.

6. Pregnant women and anyone below 18 years old will not be allowed in areas that have radiation levels above background. They will be allowed in emergency worker positions that limit chances of exposure and cross contamination.

D. <u>Decontamination Facilities</u>

1. A monitoring and decontamination center for emergency workers will be established at the County Barn, 1619 27th, Auburn, NE. Reception and Care Centers with decontamination capabilities for the general public will be established at Nebraska City and/or Falls City. The alternate emergency worker decontamination facility will be located at the Reception and Care Center in Falls City.

2. The monitoring and decontamination center for emergency workers in Falls City will be under the supervision of the Richardson County Emergency Management Director or Radiological Officer. The Emergency Management Director or RO will supervise the registration and monitoring of all emergency

workers in order to facilitate the reconstruction of their exposure parameters during an emergency and will be responsible for establishing operational procedures for the station which will ensure the following in accordance with the Richardson County Emergency Worker Decontamination SOG::

a. Proper survey techniques are employed.

b. Proper decontamination techniques are used to decontaminate personnel.

c. That dose records are recorded on the proper forms for each individual and a report provided to DHHS, Div. of Public Health as to the disposition of each individual for necessary medical follow-up action.

d. The survey crew and the decontamination area(s) have been decontaminated to an acceptable level and are free of radiation hazards, before terminating the decontamination operations.

e. That all radioactive contaminated materials are properly disposed under the direction of DHHS, Div. of Public Health

3. All contaminated emergency workers will be directed to the decontamination area for decontamination. The most highly contaminated persons shall be decontaminated first. Contaminated persons take precedence over vehicles or equipment for decontamination.

4. In the event of injury endangering life or limb, medical treatment always precedes decontamination procedures.

5. All contaminated objects (clothing, instruments, personal items, etc.) will be labeled with the date, name and address of the decontaminated person.

6. Vehicles will be monitored and contaminated vehicles separated from the non-contaminated.

E. Ingestion Pathway Contamination

1. In the event radioactive contamination of crops, livestock, feed, etc, has occurred, or is likely, protective actions will be recommended by DHHS, Div. of Public Health. Protective actions may include but not limited to:

a. Putting livestock on stored feed,

b. Monitoring dairy or other food products.

2. The USDA State Emergency Board will coordinate with all counties involved.

a. Supports agricultural damage assessment activities.

b. Through the State Agricultural Stabilization and Conservation Service coordinate all support activities of USDA agencies in Nebraska.

c. Support field requirements through the USDA Animal and Plant Health Inspection Service (APHIS).

d. Support provision of uncontaminated feed through the USDA Livestock Feed Program.

e. Collect land and water use data as pertains to food crops, animal feeds, pasture, dairy herds, livestock, and surface water supplies for areas surrounding nuclear facilities.

f. Coordinate agricultural recovery operations.

g. With the assistance of member agencies maintain status as to the availability of uncontaminated cattle feed.

h. Depending on the situation, accomplish the above responsibilities for the 10-mile Plume Exposure Pathway Emergency Planning Zone. Be prepared to do the same for the 50-mile Ingestion Exposure Pathway Emergency Planning Zone.

3. The USDA County Emergency Board will implement actions as directed by the USDA State Emergency Board to support ingestion pathway operations as conducted by state and federal agencies. See the State REP Plan for further information.

V. ADMINISTRATIVE AND LOGISTICS

A. The EMS Chief should meet annually with representatives from the rescue squads and hospital to review this plan.

B. The County Health Officer should meet annually with representatives of county health offices and mental health organizations to review this plan.

C. The Radiological Officer will maintain radiological equipment, supplies, and instrumentation in a high state of readiness at all times.

D. A supply of potassium iodide (KI) is stored at the EOC. Instructions for distribution, use, and amounts of KI are at pages F-13 through F-16.

E. Individually sealed KI doses, manufactured by IOSAT, have a shelf-life of seven (7) years after which the KI must be tested in a laboratory to ensure its stability. A letter from the laboratory can extend the shelf-life for an additional two years and further testing can extend the shelf-life another two years after that

F. The Emergency Management Director will update and/or revise this annex based upon the recommendations of the Medical Officer and the Radiological Officer.

G. A decontamination station for emergency workers has been established at the County Barn in Auburn. The alternate decontamination station for emergency workers is the Richardson County Reception Center in Falls City.

H. Falls City (Richardson County) and Nebraska City (Otoe County) are designated reception counties for the Cooper Nuclear Station. Combined, the two reception areas will accommodate the entire EPZ population.

I. The Otoe County Reception and Care Center is located in Nebraska City (refers to Annex G Attachment 5a & 5b for address and map) and is managed by Otoe County Emergency Management. Refer to the Otoe County Emergency Management Nuclear Related Standard Operating Guide for Reception and Care for staffing, management and operating procedures.

J. The Richardson County Reception and Care Center is located in Falls City (refers to Annex G Attachment 4a & 4b for address and map) managed by Richardson County Emergency Management. Refer to the Richardson County Emergency Management Nuclear Related Standard Operating Guide for Reception and Care for staffing, management and operating procedures.

VI. EXERCISING

A. Every effort will be made to incorporate radiological training and local involvement into the hospital's annual exercise.

B. Emergency medical professionals and volunteers will be utilized in these exercises to the maximum extent possible.

LIST OF ATTACHMENTS

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Radiological Officer

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: No action required.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required: (1) Review response plan.
(2) Determine availability of resources which may be needed.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required: (1) Alert support staff.
(2) Prepare Falls City Middle School as monitoring and decontamination center.
(3) Coordinate with emergency management for trained personnel and equipment available for radiological monitoring and decontamination.
(4) Coordinate with law enforcement on availability of personnel who could provide security/access control for contaminated vehicles.
(5) Alert radiological monitors and place on stand-by.
(6) Perform checks on all monitoring equipment and "zero" self-reading dosimeters.
(7) Request additional support from Richardson County EOC, as needed.
(8) Assure adequate supplies of all monitoring and decontamination forms.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

Radiological Officer

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required:
(1) Activate all personnel and maintain 24-hour operational capability.
(2) Upon direction from DHHS, Dept of Public Health, ensure KI issued to emergency workers.
(3) Issue personnel dosimeters to all monitoring and decontamination emergency workers.
(4) Coordinate with Red Cross for supply of clothing at decontamination center, if required.
(5) Assure adequate number of radiological monitors are assigned to decontamination center.
(6) Request additional support from Richardson County EOC, as needed.
(7) Assure all monitoring equipment and supplies are operable and in place.
(8) Open decontamination center and commence monitoring and decontaminating evacuees. Monitor and decontaminate equipment and vehicles after evacuees have been cared for.
(9) Maintain records of any exposure received by personnel. Do not permit any personnel to exceed allowable exposure.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

POST EMERGENCY PHASE: Events that begin immediately after evacuation procedures have been implemented. Consists of Relocation, Reentry, and Return.

Actions Required:
(1) Monitor and decontaminate—if required—all personnel, equipment, decontamination areas, and supplies.
(2) Request DHHS, Dept of Public Health personnel inspect all decontamination areas, to ensure proper decontamination.
(3) Terminate decontamination center operations.
(4) Re-supply decontamination kits.
(5) Collect and store all self-reading dosimeters and radiological detection equipment.
(6) Deliver all radiological records and TLDs to DHHS, Dept of Public Health.
(7) Complete any reports requested by Emergency Management and deliver to EOC.

PROTECTIVE ACTION ALTERNATIVES

The decision that protective actions are necessary to protect the health of the public is the responsibility of DHHS, Dept of Public Health in coordination with Plant, state and local officials. The selections of the most effective protective action will be based on the actual situation that exists at the time of the incident. Local government must be prepared to advise its citizens of the proper actions to take and also be prepared to carry through its responsibilities to assist its citizens. Some protective action alternatives are:

1. In-House Shelter

   In the event of a short-term or low-level radioactive release, it may be desirable to have people stay indoors or go into shelter as an alternative to evacuation. Moving the affected population into shelter would provide sufficient protection under certain conditions of radioactive release as determined by DHHS, Dept of Public Health. It would also provide protection until an initial evaluation of the situation could be made. As a general rule of thumb, persons staying indoors would receive about 1/6 the inhalation dosages they would get if they were outside. The use of basements and the limiting of air intake from outside could reduce the exposure even more.

   In providing shelter for the population, homes and home basement shelters would be the primary resource. When available, public shelter would be used by those persons not at home, and by the transient population. Closing all windows, chimneys and outside air access points will increase the protective capability of any home or basement.

2. Protection of the Thyroid Gland

   One of the major protective actions considered after an accident at a nuclear power facility involving the release of radioiodine is the use of stable iodide as a thyroid blocking agent to prevent thyroid uptake of radioiodines.

   Distribution of potassium iodide (KI) to emergency workers is geared to their emergency response location and responsibilities.

   The ER Manager, DHHS, Dept of Public Health, or his/her designated representative will issue and control KI for personnel who operate from the State Field Command Post, and for the State Field Monitoring Teams that operate in the Plume Exposure Zone (EPZ).

   The local Emergency Management Director, under the direction of DHHS, Dept of Public Health, will be responsible for issuing and controlling KI for emergency response personnel of the Sheriff's Department, police, fire fighters, ambulance services, nurses, doctors, paramedics, and radiological monitors. This may be delegated to the Radiological Officer (RO).

   Issue and control of KI and TLDs for school bus drivers is the responsibility of the school superintendent's office. The Radiological Officer supervising local

decontamination stations will be responsible for issuing and controlling KI for all other emergency response personnel who may be required to enter the radiation hazard area under DHHS, Dept of Public Health direction.

Only emergency field personnel that will be exposed to radioactive iodine at a quantity that could give a dose of 25 rem CDE to the thyroid will be requested to take potassium iodide (KI).

3. Ad Hoc Respiratory Protection

If ad hoc respiratory protection, such as placing a handkerchief over the mouth and nose to minimize inhalation of radioactive particulates, would be beneficial, the public will be advised by local government acting on the advice of DHHS, Dept of Public Health personnel. Such ad hoc measures might be called for during that short period of time between initial notification and the public response to the more effective protective actions such as taking in-house shelter.

4. Evacuation

Evacuation is a last resort protective action and would be recommended or initiated only if other actions would not provide adequate protection to the public.

INSTRUCTIONS FOR ADMINISTERING POTASSIUM IODIDE (KI)*

A major protective action to be considered following an off-site release of radioiodine at a nuclear power facility is the use of stable iodide to load the thyroid gland as a "blocking agent". This action will prevent thyroid gland injury by an uptake of radioiodines.

For greatest effectiveness, the blocking agent should be administered prior to exposure to radioiodine. Since reliable radiation monitoring data may not be available that quickly, the decision to administer stable iodide as potassium iodide (KI) will be based on a pre-planned estimate of the projected dose. It is clear from standard uptake curves that, after a single release of radioiodine, the bulk of the iodine has entered the gland by 10-12 hours. Little benefit may be expected by blocking beyond this time. A substantial benefit (e.g., a block of 50 percent) is attainable only during the first 3-4 hours. For more prolonged iodine-131 exposure, KI will be useful at any time during the exposure and hence should still be given even if the drug was not given shortly after the exposure to radioiodine.

If the initial estimate at the facility indicates that people are likely to receive a projected radiation dose of 25 rems or greater to the thyroid gland, the blocking agent should be administered immediately to emergency personnel coming to or working near the facility.

The evacuation of the general public should be initiated at 1 rem total effective dose equivalent or 5 rem committed dose equivalent to the thyroid.

Based on information supplied by the facility operator as to the magnitude of the accident, the ER Manager, DHHS, Dept of Public Health will consider prompt administration of the blocking agent to emergency personnel who respond to the accident. This group includes police officers, firemen, physicians, health physicists, monitors, nurses, ambulance drivers, paramedical personnel, and school bus drivers. These people are considered a potential "high risk" group.

For people beyond the immediate vicinity of the reactor the decision to instruct them to remain indoors or to evacuate will depend on (1) the type of accident, (2) estimates of releases, (3) wind direction and (4) monitoring data as it becomes available.

Supply of KI: as an oral solution, each drop contains 21 milligrams of potassium iodide or as a scored tablet containing 130 milligrams of potassium iodide. Iodide can be obtained from the Wallace Laboratory or Roxane Laboratory. DHHS, Dept of Public Health maintains an immediate supply of KI of at least 1,000 doses (enough for 100 emergency workers for 10 days) of unexpired KI. A standing purchase order with Wallace Laboratories will enable the Department to rapidly acquire a large quantity if projected conditions appear to justify it.

The dose for KI as a thyroid-blocking agent in a radiation emergency only is effective if administered prior to or immediately after ingestion of Radioactive Iodine 131.

For both dosage forms: Take for 10 days unless directed otherwise by State or local public health authorities.

The decision to take KI for emergency workers will be made by the ER Manager, DHHS, Dept of Public Health as a state health official. With the instruction of the ER Manager to take KI on an emergency basis, the medicine is considered to be available over-the-counter as a nonprescription drug. Instructions on how to take iodide safely and effectively including side effects, and its treatment is given to emergency workers as a training assignment. An information leaflet will be issued with KI to emergency workers.

Distribution of KI to emergency workers is geared to their varied emergency response locations and responsibilities. A health physics professional will be responsible for issuing and controlling KI for personnel who operate from the State Field Command Post and for the State Field Monitoring Teams that are responsible for dose assessment activities in the Plume Exposure EPZ.

The local Emergency Management Director, under DHHS, Dept of Public Health direction, will be responsible for issuing and controlling KI for emergency response personnel involving the Sheriff's Department, police, fire fighting, ambulance services, nurses, doctors, paramedics, and radiological monitors. Issue and control of KI and TLDs for school bus drivers is the responsibility of the school Superintendent's Office. These functions may be further delegated to the local Radiological Officer.

The general public will not be provided with KI as DHHS, Dept of Public Health strongly favors the use of timely protective action (i.e., in-house shelter or evacuation) for the ambulatory public located in the hazard area. Special consideration will be given to institutionalized and non-ambulatory persons, pregnant women, and children located in the hazard area for early evacuation.

***Use of Potassium Iodide (KI) by Emergency Workers is strictly VOLUNTARY.**

****If Emergency Workers refuse to take K.I (Sodium Iodide) they must sign and date Attachment 16. Also when issuing K.I a record (Attachment 16) will be kept by the Radiological Officer of the location where, when and to whom each dose of K.I was distributed too.**

LIST AND LOCATION OF KITS CONTAINING DOSIMETERS, KI, TLDs & METERS

CNS SERIES

KIT #1 A – EMERGENCY WORKERS – Nemaha Co. EOC
60 Direct-Reading AT-138 Dosimeters, 0-200 mR
60 Direct-Reading AT-725 Dosimeters, 0-5R
5 CD V-750, Model 6 Dosimeter Chargers
NEMA REP Dosimetry Log or equivalent
KI (30 Packets with 14-130 mg. Tabs each*) with Information Sheets 60 TLDs, 1 Control TLD

KIT #1 B – EMERGENCY WORKER DECON – Auburn
20 Direct-Reading AT-138 Dosimeters, 0-200 mR
1 CD V-750, Model 6 Dosimeter Charger
4 CD V-777 Kits (2 CD-V700s, 1 CD V-750 Dosimeter Charger)
NEMA REP Dosimetry Log or equivalent
4 Ludlum 26s (Each Kit: 2 Ludlum Model 26 Instruments & 1 Cesium 137 Check Source)
1 AM-803 Portable Portal Monitor with Vehicle Monitoring Kit
40 TLDs, 1 Control TLD

KIT #1 C – AUBURN FIRE & RESCUE – Auburn
8 Direct-Reading AT-138 Dosimeters, 0-200 mR
8 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
2 CD V-777 Kits (Each Kit: 2 CD-V700s, 1 CD V-750 Dosimeter Charger)
NEMA REP Dosimetry Log or equivalent
KI (4 Packets with 14-130 mg. Tabs each*) with Information Sheets
2 RadEye B-20ERs
8 TLDs, 1 Control TLD

KIT #1 D – MIDWEST MEDICAL – Auburn
4 Direct-Reading AT-138 Dosimeters, 0-200 mR
4 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
3 RadEye B20-ERs
KI (2 Packets with 14-130 mg. Tabs each*) with Information Sheets
4 TLDs, 1 Control TLD

CNS SERIES CONTINUED:

KIT # 1 E – AUBURN VOLUNTEER FIRE DEPARTMENT – Auburn
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR
15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger

NEMA REP Dosimetry Log or equivalent
KI (8 Packets with 14-130 mg. Tabs each*) with Information Sheets
15 TLDs, 1 Control TLD

KIT # 1 F – NEMAHA COUNTY HOSPITAL – Auburn
14 Direct-Reading AT-138 Dosimeters, 0-200 mR
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
1 Ludlum Model 26 Kit (Each Kit: 2 Ludlum Model 26 Instruments & 1 Cs 137 Check Source)
2 CD V-777 Kits (Each Kit: 2 CD V-700's, 1 CD V-750 Dosimeter Charger)
14 TLDs, 1 Control TLD

KIT #1 G – PRO-MED AMBULANCE – Falls City
9 Direct-Reading AT-138 Dosimeters, 0-200 mR
9 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
3 RadEye B20-ERs
KI (2 Packets with 14-130 mg. Tabs each*) with Information Sheets
4 TLD, 1 Control TLD

KIT #1 H – EMERGENCY WORKERS – Richardson Co. EOC
50 Direct-Reading AT-138 Dosimeters, 0-200 mR
50 Direct-Reading AT-725 Dosimeters, 0-5R
3 CD V-750, Model 6 Dosimeter Chargers
NEMA REP Dosimetry Log or equivalent
KI (26 Packets with 14-130 mg. Tabs each*) with Information Sheets
50 TLDs, 1 Control TLD

KIT #1 I – RECEPTION CENTER/DECON. – Falls City
20 Direct-Reading AT-138 Dosimeters, 0-200 mR
1 CD V-750, Model 6 Dosimeter Charger
6 CD V-777 Kits (Each Kit: 2 CD-V700s, 1 CD V-750 Dosimeter Charger)
NEMA REP Dosimetry Log or equivalent
6 Ludlum Model 26 Kits (Each Kit: 2 Ludlum Model 26 Instruments & 1 Cs 137 Check Source)
2 TPM903B Portable Portal Monitor with Vehicle Monitoring Kit
40 TLDs, 1 Control TLD
CNS SERIES CONTINUED:

KIT #1 J – EMERGENCY WORKERS – Otoe County EOC
10 Direct-Reading AT-138 Dosimeters, 0-200 mR
10 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
2 CD V-777 Kits (Each Kit: 2 CD-V700s, 1 CD V-750 Charger)
20 TLDs, 1 Control TLD

KIT # 1 K – Nebraska City Police Dept. – Nebraska City
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR

15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (8 Packets with 14-130 mg. Tabs each*) with Information Sheets
15 TLDs, 1 Control TLD

KIT # 1 L – Nebraska City Fire Dept. – Nebraska City
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR
15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (8 Packets with 14-130 mg. Tabs each*) with Information Sheets
15 TLDs, 1 Control TLD

KIT # 1 M – Otoe Sheriff's Office – Nebraska City
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR
15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (8 Packets with 14-130 mg. Tabs each*) with Information Sheets
15 TLDs, 1 Control TLD

KIT #1 N – RECEPTION CENTER/DECON. – Nebraska City
20 Direct-Reading AT-138 Dosimeters, 0-200 mR
1 CD V-750, Model 6 Dosimeter Charger
3 CD V-777 Kits (Each Kit: 2 CD-V700s, 1 CD V-750 Dosimeter Charger)
NEMA REP Dosimetry Log or equivalent
3 Ludlum Model 26 Kits (Each Kit: 2 Ludlum Model 26 Instruments & 1 Cs 137 Check Source)
1 TPM903A Portable Portal Monitor with Vehicle Monitoring Kit
1 AM-803 Portable Portal Monitor with Vehicle Monitoring Kit
40 TLDs, 1 Control TLD

CNS SERIES CONTINUED:

KIT # 1 O – JOHNSON VOLUNTEER FIRE DEPARTMENT – Johnson, NE
(HAB RESPONSE KIT**)
20 Direct-Reading AT-138 Dosimeters, 0-200 mR
20 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (10 Packets with 14-130 mg. Tabs each*) with Information Sheets
20 TLDs, 1 Control TLD

KIT # 1 P – NEMAHA VOLUNTEER FIRE DEPARTMENT – Nemaha, NE
(HAB RESPONSE KIT**)
20 Direct-Reading AT-138 Dosimeters, 0-200 mR
20 Direct-Reading AT-725 Dosimeters, 0-5R

1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (10 Packets with 14-130 mg. Tabs each*) with Information Sheets
20 TLDs, 1 Control TLD

KIT # 1 Q – PERU VOLUNTEER FIRE DEPARTMENT – Peru, NE
(HAB RESPONSE KIT**)
25 Direct-Reading AT-138 Dosimeters, 0-200 mR
25 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (13 Packets with 14-130 mg. Tabs each*) with Information Sheets
25 TLDs, 1 Control TLD

KIT # 1R – NEMAHA COUNTY SHERIFF'S DEPARTMENT – Auburn
(HAB RESPONSE KIT**)
10 Direct-Reading AT-138 Dosimeters, 0-200 mR
10 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (5 Packets with 14-130 mg. Tabs each*) with Information Sheets
10 TLDs, 1 Control TLD

NEMA

KIT #4A – AIRCRAFT (Crew carrying Lab Samples to Lab)
6 Direct-Reading AT-138 Dosimeters, 0-200 mR
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
6 TLDs, 1 Control TLD

KIT #4B – NSP Courier (Transports Samples to Aircraft destined for Lab)
4 Direct-Reading AT-138 Dosimeters, 0-200 mR
4 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (2 Packets with 14-130 mg. Tabs each*) with Information Sheets
4 TLDs, 1 Control TLD

KIT #4C – NEMA MOBILE OPERATIONS CENTER (MOC)
6 Electronic Personal Dosimeters (EPDs)
NEMA REP Dosimeter Log or equivalent
KI (3 Packets with 14-130 mg. Tabs each*) with Information Sheets
6 TLDs, 1 Control TLD

NEMA Continued:

KIT #4D – NEMA MOBILE OPERATIONS TRAILER (MOT)
8 Electronic Personal Dosimeters (EPDs)

NEMA REP Dosimetry Log or equivalent
KI (4 Packet with 14-130 mg. Tabs each*) with Information Sheets
8 TLDs, 1 Control TLD

KIT #4E – NEMA Liaison Team (Washington Co.)
2 Direct-Reading Dosimeters, AT-138 0-200 mR
2 Direct-Reading Dosimeters, AT-725 0-5 R
1 CDV-750, Model 6, Direct-Reading Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (1 Packet with 14-130 mg. Tabs each*) with Information Sheets
2 TLDs, 1 Control TLD

NSP

KIT # 5A – HEADQUARTERS TROOP – Lincoln, NE
(HAB RESPONSE KIT**)
46 Direct-Reading AT-138 Dosimeters, 0-200 mR
46 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (23 Packets with 14-130 mg. Tabs each*) with Information Sheets
46 TLDs, 1 Control TLD

KIT # 5B – TROOP A – Omaha, NE
(HAB RESPONSE KIT**)
75 Direct-Reading AT-138 Dosimeters, 0-200 mR
75 Direct-Reading AT-725 Dosimeters, 0-5R
2 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
KI (38 Packets with 14-130 mg. Tabs each*) with Information Sheets
75 TLDs, 1 Control TLD

KIT # 5C – NSP SWAT TEAM – Lincoln, NE
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR
15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
2 Thermo FH-40G Kits
KI (8 Packets with 14-130 mg. Tabs*) with Information Sheets
15 TLDs, 1 Control TLD

NSP CONTINUED:

KIT # 5C(2) – NSP SWAT TEAM – Lincoln, NE
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR
15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
2 Thermo FH-40G Kits

KI (8 Packets with 14-130 mg. Tabs*) with Information Sheets
15 TLDs, 1 Control TLD

KIT # 5C(3) – NSP SWAT TEAM – Lincoln, NE
(HAB RESPONSE KIT**)
15 Direct-Reading AT-138 Dosimeters, 0-200 mR
15 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
NEMA REP Dosimetry Log or equivalent
2 Thermo FH-40G Kits
KI (8 Packets with 14-130 mg. Tabs*) with Information Sheets
15 TLDs, 1 Control TLD

KIT # 5D – NSP BOMB SQUAD – Lincoln, NE
(HAB RESPONSE KIT**)
6 Direct-Reading AT-138 Dosimeters, 0-200 mR
6 Direct-Reading AT-725 Dosimeters, 0-5R
1 CD V-750, Model 6 Dosimeter Charger
2 THERMO FH-40G Kits
NEMA REP Dosimetry Log or equivalent
KI (3 Packets with 14-130 mg. Tabs each*) with Information Sheets
6 TLDs, 1 Control TLD

NEBRASKA ARMY NATIONAL GUARD (NEARNG)

KIT # 6A – NEARNG 72nd CST – Lincoln, NE
(HAB RESPONSE KIT**)
20 Direct-Reading AT-138 Dosimeters, 0-200 mR
20 Direct-Reading AT-725 Dosimeters, 0-5R
2 CD V-750, Model 6 Dosimeter Chargers
NEMA REP Dosimetry Log or equivalent
KI (10 Packets with 14-130 mg. Tabs each*) with Information Sheets
20 TLDs, 1 Control TLD

NEBRASKA ARMY NATIONAL GUARD (NEARNG) CONTINUED:

KIT # 6B – NEARNG INFANTRY/OTHER COMPANY – Lincoln, NE
(HAB RESPONSE KIT**)
120 Direct-Reading AT-138 Dosimeters, 0-200 mR
120 Direct-Reading AT-725 Dosimeters, 0-5R
6 CD V-750, Model 6 Dosimeter Chargers
NEMA REP Dosimetry Log or equivalent
KI (60 Packets with 14-130 mg. Tabs each*) with Information Sheets
120 TLDs, 1 Control TLD

EXTRA KI – AT DHHS, DPH
13 Packets

EXTRA KI – AT NEMA
61 Packets

EXTRA TLDs – AT NEMA

11 Control TLDs
232 TLDs

* Expires August 2016

** These kits are being constructed and distributed or held by NEMA. Each kit contains the depicted quantities of KI but each is awaiting procurement of additional TLDS, Direct-Reading Dosimeters and Direct-Reading Dosimeter Chargers which will occur by July 2015.

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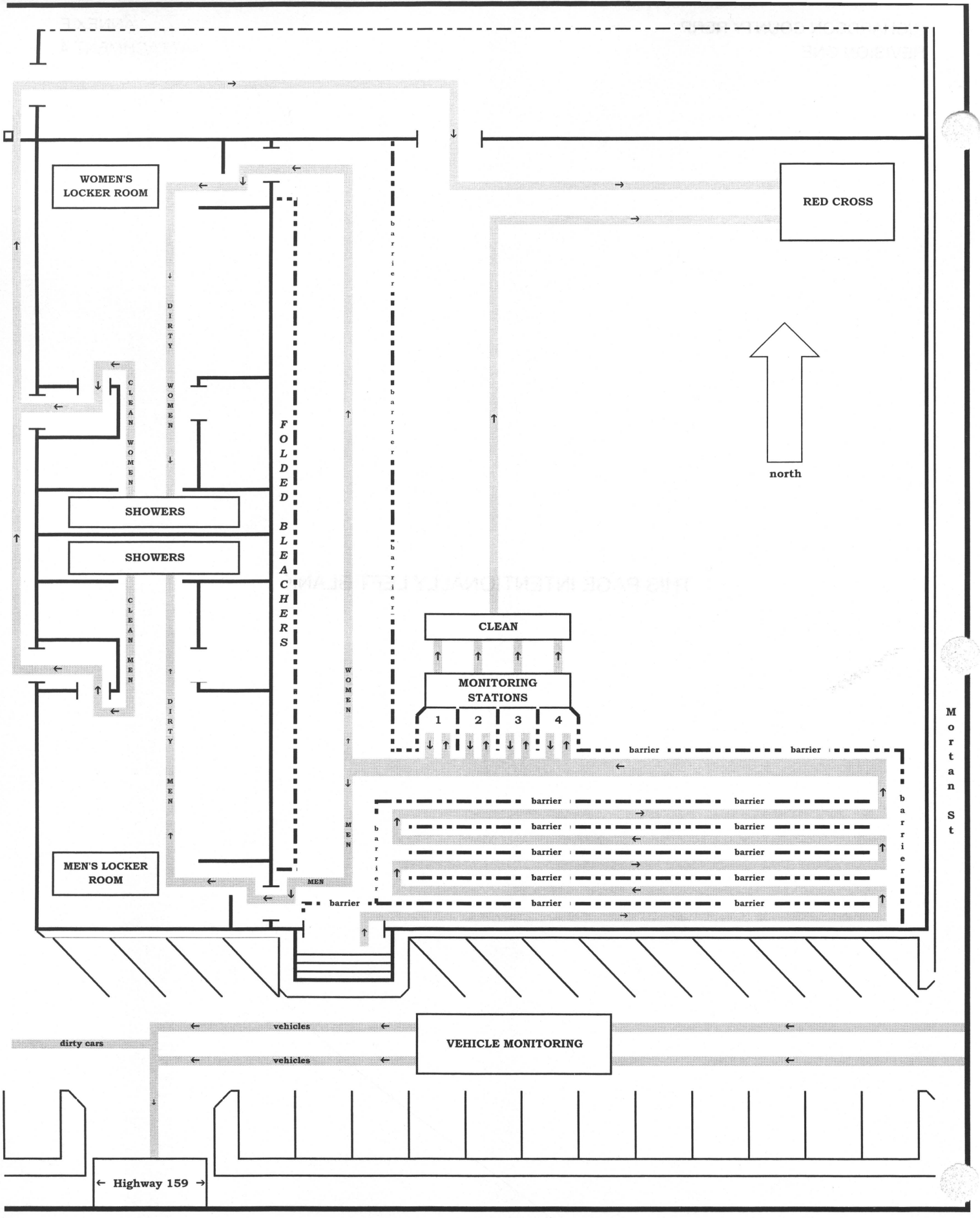


Falls City Monitoring Facility

DECONTAMINATION PROCEDURES

I. DECONTAMINATION STATION OPERATIONS

A. A decontamination station for emergency workers has been established at the County Barn in Auburn. It is primarily designated and equipped for use by emergency workers in the event of an incident at the Cooper Nuclear Station. The backup decontamination station for emergency workers is the Reception & Care Center in Falls City.

B. A decontamination kit is stored at the Emergency Operating Center in Auburn for use when the decontamination station is activated.

C. Survey instrumentation is furnished by the Nebraska Emergency Management Agency and the Nemaha County Emergency Management Agency.

D. Personnel Guidelines and Precautions

The following guidelines and precautions are to be observed by attending personnel during decontamination procedures:

1. All contaminated emergency workers shall be transferred to the decontamination facility for decontamination. Contaminated persons take precedence over vehicles or equipment for decontamination.

2. In the event of injury endangering life or limb, medical treatment precedes decontamination procedures.

3. Personnel suspected of having internal contamination shall be reported to the State EOC, who will inform the ER Manager, DHHS, Dept of Public Health.

4. Establish and secure an adequate facility for decontamination with showers. The walkway between the initial monitoring area and the decontamination area will be covered with a floor covering. Separated areas are required for contaminated vs. decontaminated.

5. Anyone in contact with contaminated personnel or their clothing may become contaminated.

6. Plastic or rubber gloves and shoe covers should be worn by all attending persons. Respiratory equipment may also be required depending on the chemical properties of the contaminating material. Survey meter probes should be covered with thin plastic.

7. Following decontamination, the gloves, shoe coverings and protective clothing should be removed and discarded into a radioactive waste container followed by proper cleaning or disposal by DHHS, Dept of Public Health.

8. A thorough washing and scrubbing to remove any possible skin contamination should be performed by all attending personnel following the decontamination of other personnel. Care should be taken not to break the skin during this procedure.

9. A person trained in the use of radiation survey instrumentation should be present and monitoring these decontamination procedures.

10. All contaminated objects (i.e., instruments, clothing, personal items, etc.) should be labeled with the time, date and decontaminated person's name. These objects should then be stored in a container that clearly displays the label (sign): "RADIOACTIVE - DO NOT DISCARD".

11. Whenever possible, remote handling instruments (tongs or other mechanical equipment) should be utilized when handling contaminated objects.

12. Vehicles and equipment may also become contaminated. To decontaminate, use a water hose and soap and clean the vehicles/equipment, in the assigned decontamination area, until the level of radiation has been reduced to safe acceptable levels. Contaminated water should be flushed into drains that are connected to a self-contained waste water system. The water source should be left turned on to provide dilution.

13. Before the decontamination operations can be terminated, the facility and surrounding areas must be decontaminated leaving the facility in an acceptable condition for cleanliness and free of radiation hazards.

E. Decontamination Station Operational Procedures

1. Facility Requirements - The decontamination station has separate and adjacent areas for personnel decontamination and for vehicle/equipment decontamination.

2. Personal Decontamination area must:

   a. Have electricity and running water with suitable drains connected to a self-contained waste water or sewer system approved by the ER Manager, DHHS, Dept of Public Health.

   b. Provide segregated shower areas for decontamination and dressing.

   c. Be made of materials which can be easily decontaminated or replaced.

   d. Provide a contamination-free area for dose calculation and relocation assignments.

3. Vehicle/Equipment Decontamination area must:

   a. Have a water source available.

b. Have drainage which discharges into a self-contained waste water system or sewer system approved by the ER Manager, DHHS, Dept of Public Health that does not discharge directly into a stream or river.

4. Survey Vehicles - Record results on "Vehicle Contamination Measurement Record" found in Attachment 7.

5. Separate contaminated vehicles from non-contaminated vehicles by assigned areas. See "Levels of Surface Contamination" for acceptable levels.

6. Direct people from vehicles at the parking area to the monitoring area.

7. Survey people and record the radiation levels on "Radiation Survey Record" in Attachment 6 for those individuals who are contaminated. Be sure to record each individual's full name, address, social security number, and phone number so DHHS, Dept of Public Health can continue to monitor the progress of each individual for health effects.

8. Remove outer clothing of people as necessary for control of contamination. Place contaminated clothing in a plastic bag and mark with the name of the individual. Keep track of valuables.

9. Have people shower to remove contamination.

10. Resurvey people after shower.

11. Reshower as necessary.

12. Resurvey: If people are still contaminated note and record radiation levels. Contact the ER Manager, DHHS, Dept of Public Health, or assigned designee, for further instructions. Such cases may need to be transported to the Radiation Health Center for specialized medical care.

13. Have people don disposable coveralls or other appropriate clothing as a substitute for their contaminated clothing. Keep track of valuables.

14. Send decontaminated personnel to the clean area to complete the "Radiation Survey Records". See Attachment 6.

15. Survey and decontaminate the area, i.e. walls, floors, showers, etc., as necessary.

II. RADIOLOGICAL MONITORING ACTIVITIES

A. If the evacuation of an area is implemented as a result of a radioactive materials release by a nuclear power plant, a reception area which will include monitoring stations will be established outside the radioactive hazard area. All resident

evacuees will be surveyed to ensure proper decontamination and recording of contamination levels on the Radiation Survey Record so DHHS, Dept of Public Health may continue to monitor each individual for health effects. Emergency Worker Decon will be established at the County Barn in Auburn.

B. Each reception area and emergency worker decontamination station will be equipped with the same instrumentation and support equipment as indicated:

1. CD V-138 - one per monitor assigned.

2. Eberline ASP-2 – one per monitor assigned, as available.

3. CD V-700 - one per monitor assigned, if not already issued an ASP-2.

4. CD V-750 - one per checkpoint.

5. Lithium Fluoride TLD - one per monitor assigned.

6. Sufficient hand tools for use in removing air filter covers or other necessary vehicle parts to ensure proper inspection for contamination (screwdrivers, pliers, etc.).

7. Flashlight with extra batteries, in the event a night operation is necessary.

C. When surveying a vehicle for radioactive contamination, the following areas of a vehicle should be checked:

1. Each wheel and tire.

2. Each fender well.

3. The grill and headlight area.

4. The radiator.

5. The front of the engine (if the engine is located at the front of the vehicle).

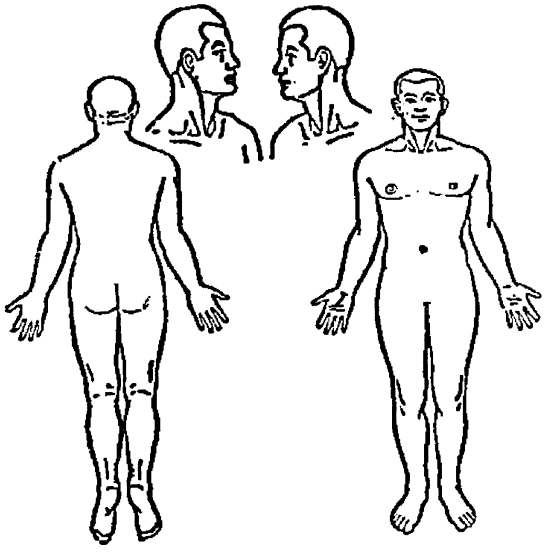
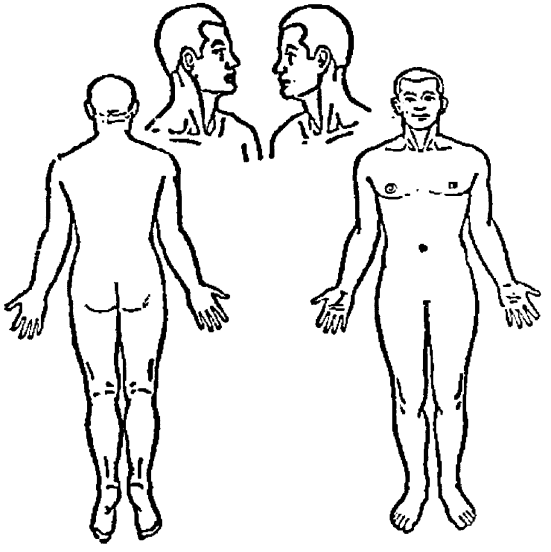
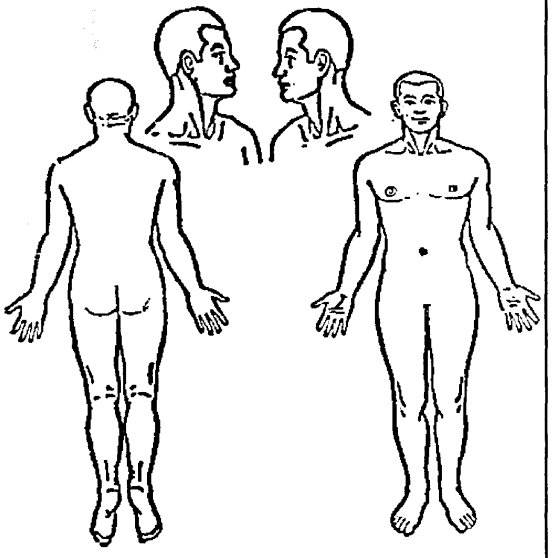
6. The carburetor air intake filter (remove the top of the air cleaner assembly).

7. The underside and back of the vehicle where contaminated dust may collect (note: DO NOT crawl under the vehicle).

8. If contamination is found on the exterior of the vehicle, the vehicle interior and the occupants should also be surveyed.

D. Before terminating the reception area/decontamination station operations, each member of the survey crew and all equipment will be checked to determine if decontamination may be necessary. See "Levels of Surface Contamination" for acceptable levels.

PERSONNEL SURVEY FORM

NAME:	DATE:	TIME:
Initial Evaluation	**After First Decontamination Attempt**	**After Second Decontamination Attempt**
		
Radiological Survey Results:	Radiological Survey Results:	Radiological Survey Results:
Comments:		

Acceptable Contamination Level is Less Than 300 cpm

Evacuee Information:	Address:	Vehicle Make/Model:	Instrument Used:	Released?
	Telephone:	Vehicle License#:	Serial#:	Sent to Hospital?

DECONTAMINATION STATION

Recommended Equipment and Supplies

	Equipment	Purpose
1	Ludlum 26	For contamination survey
2	CD V-700 (side window)	For contamination survey
3	CD V-700 (end window)	For contamination survey
4	AT-138	For personal protection, self-reading dosimeter
5	CD V-750 (included in CD V-777 Monitoring Kits)	Dosimeter Charger
6	TLDs	For survey crew
7	Spare batteries	For use in CD V-700's
8	Respirators with spare filter cartridges	For survey crew inhalation protection
9	Laboratory coats or cloth overalls, head & shoe covers & rubber gloves	Protective clothing for survey crew
10	Remote handling tongs or other mechanical devices	For handling contaminated objects
11	Hand tools - hammer, screwdrivers, wrenches, pliers, etc.	For removing air intake, etc.
12	Flashlight with extra batteries	For use where lighting is needed
13	Nuclear warning rope or cord	For securing contaminated areas
14	Radiation caution signs & labels	For labeling contaminated objects
15	Garden hose	For decontaminating equipment, vehicles, and/or facility
16	Brooms, brushes, mops, and buckets	For decontamination
17	Replacement clothing	For individuals with contaminated clothing

	Supplies	
1	Soap or detergent	For decontamination
2	Containers of various sizes	For collecting contaminated fluids
3	Cotton swabs	For nasal smears and decontamination
4	Envelopes	For wipes, nasal smear, and samples for identification
5	Plastic bags of all sizes	For disposing of contaminated materials
6	Plastic sheets	For covering floors, ventilation ducts, and contaminated areas

PERSONAL DECONTAMINATION METHODS

Method	Surface	Technique
Mild soap and warm water	Skin and hair	Wash 2-3 minutes.
Soap, soft brush, and water	Skin	Use light pressure with heavy lather. Use care not to scratch or erode the skin.
Detergent	Hair	Wash hair. Rinse thoroughly. Repeat.

Other decontamination methodology will be utilized from the "Radiological Health Handbook" (FDA-BRH)

LEVELS OF SURFACE CONTAMINATION

SITE BETA, GAMMA CONTAMINATION VALUE

1.	Skin	500 cpm above background
2.	Clothing	500 cpm above background
3.	Vehicles/equipment	500 cpm above background
4.	Surface areas released as unrestricted areas	500 cpm above background

Surveys will be conducted with a Ludlum 26. When the Ludlum 26 is unavailable, surveys will be conducted with a CD V-700 with earphones attached.

The instrument probe shield will be open and held 1/2 inch from the surfaces monitored. The rate of travel of the probe over surfaces should be at 2 to 3 inches per second.

Levels of contamination above 500 cpm above background require decontamination, restriction of the area as contaminated.

RADIATION DOSIMETER SURVEY RECORD FOR EMERGENCY WORKERS

Location: _____

PERSONNEL INFORMATION				DOSIMETERS		READINGS		
NAME	DATE OF BIRTH	SOCIAL SECURITY#	DATE	TLD SERIIAL#	DOSIMETER SERIAL #	BEFORE USE	AFTER USE	ACCUMULATIVE mR DOSE

_____
Officer in Charge

VEHICLE CONTAMINATION MEASUREMENT RECORD

Date _____ Survey Instrument _____ BKG. _____ (CPM)

Vehicle License Number	Tires/ Wheel-well mR/hr or CPM	Body mR/hr or CPM	Air Filter mR/hr or CPM	Inside mR/hr or CPM	Remarks Clean or Contaminated

_____

Officer in Charge

RADIATION SURVEY RECORD FOR DECONTAMINATION STATIONS

Location _____ Survey Instrument _____ BKG. _____ CPM
Date _____

NAME	SOCIAL SECURITY#	OUTER CLOTHING READING mR/hr or CPM	SKIN SURFACE READING mR/hr or CPM BS*	SKIN SURFACE READING mR/hr or CPM AS*	BIOASSAY SAMPLE TAKEN		
					U**	F**	N**

_____ _____

Surveyor **Officer in Charge**

* BS/AS = Before Shower/After Shower

PERSONNEL TLD ISSUE RECORD

Location of Issue: _____ Type of Dosimeter: _____

DATE OF ISSUE	NAME OF INDIVIDUAL	SOCIAL SECURITY#	DATE OF BIRTH	TLD SERIAL #	SPACE RESERVED FOR HHS		
					READING	CONTROL READING	EXPOSURE

_____
PERSON IN CHARGE

Nebraska Health and Human Services
Thermoluminescent Dosimeter (T
Expires One Year After Date Shown

RADIOLOGICAL EQUIPMENT AND PERSONNEL

I. RESPONSIBILITIES

A. Richardson County Emergency Management (Radiological Officer) will:

1. Maintain sufficient numbers of CD V-777 radiation monitoring kits to ensure an adequate response.

2. Provide a listing of where all monitoring kits and miscellaneous equipment are stored.

3. Prepare and maintain radiation monitoring kits with the following equipment:

   a. Ludlum 26, CD V-700, Arrow-Tech 725, AT-138, CD V-750.

   b. Spare batteries.

   c. Instructions for operations, use, and inspection of the radiation detection sets.

4. Maintain a status log covering:

   a. Radiation monitoring kit.

   b. Serial numbers.

   c. Date last calibrated.

   d. Battery replacement date.

   e. Operational check date.

B. State government will:

1. Make the initial issue of radiation detection sets based on local needs.

2. Ensure that a quarterly operational check is performed on all radiation detection instruments in accordance with the operational checklist provided with each set. The Radiological Systems Manager, Nebraska Emergency Management Agency, will maintain inspection sheets.

3. Accomplish all calibration and maintenance on the radiation detection sets.

4. The Nebraska Emergency Management Agency and HHS Regulation & Licensure maintains a kit of sophisticated radiation monitoring and detection

instruments which will be used by the ER Manager, HHS Regulation & Licensure, for all radiological incidents/accidents.

II. DISTRIBUTION

The Richardson County Emergency Management Director and Radiological Officer will assure that distribution of monitoring kits and associated dosimetry are provided to the Decontamination Center for use, as necessary, under the direct supervision of the Radiological Officer. All emergency workers will be provided appropriate dosimetry.

A. RADIOLOGICAL EQUIPMENT RESOURCES:

1. Monitoring Kits (ASP-2)

a.	Ludlum 26 (2)	c.	AT-138 (2)
b.	Pancake probe (2)	d.	CD V-750 (1)

Number Assigned	Issued To	Location
3	Emergency Management Director Richardson County EOC	Falls City, NE

2. Monitoring Kits (CD V-777)

a.	CD V-700 (1)	c.	CD V-750 (1)
b.	AT-138 (2)	d.	CD V-715 (1)

Number Assigned	Issued To	Location
10	Emergency Management Director Richardson County EOC	Falls City, NE

3. Miscellaneous Instruments

Number Assigned	Type	Issued To	Location
30	Arrow-Tech 725	Emergency Management Director Richardson County EOC	Falls City, NE
50	CD V-138	Emergency Management Director Richardson County EOC	Falls City, NE
6	CD V-750	Emergency Management Director Richardson County EOC	Falls City, NE
78	TLDs	Emergency Management Director Richardson County EOC	Falls City, NE

EXCERPT FROM GUIDE FOR THE DESIGN AND DEVELOPMENT OF A LOCAL RADIOLOGICAL DEFENSE SUPPPORT SYSTEM

CPG 1-30, dated June 1981

Peacetime Use of Instruments - Civil preparedness instrumentation is designed to measure the gamma radiation emitted by radioactive fallout. Some of these instruments will also detect high-energy beta radiation if present in sufficiently detectable quantities. However, with the exception of the special CD V-700M with the modified end window probe, these instruments are not designed to detect or measure alpha and/or low-energy beta radiations. Although civil preparedness instruments do not adequately fulfill all of the requirements for peacetime radiological incident/accident monitoring, most of the instruments granted to the States could be useful in the event of peacetime incidents involving the accidental release of radioactive materials to the environment.

However, problems can arise when civil preparedness instruments are used for the measurement of radioactivity from peacetime incidents, because of the large number of diverse types of radioactive materials that may be released. These materials can vary considerably in their types and amount of radioactivity; thus, peacetime incidents result in more complex radiological measurement and interpretation problems than are expected for the radiological situation resulting from a nuclear attack. The complexity of measurement and hazard evaluation in a peacetime release of radioactivity to the environment occurs when contamination is airborne, either gaseous or particulate, and inhalation or ingestion may create an internal hazard greater than the external exposure radiation.

Other major differences between peacetime and attack contingencies would be the lower levels of radiation to be measured, requiring instruments having a compatible range of measurement, and the operating constraints which limit exposure of the populace to much lower levels in peacetime incidents than those acceptable in an attack situation where the primary mission is to prevent death of acute radiation sickness.

Radiological assistance in peacetime emergencies is available through state health agencies, or other designated agencies within the state, and also from the regional offices of the U.S. Nuclear Regulatory Commission. These agencies have trained individuals and the specific radiation detection equipment necessary to measure and evaluate the existing type of radiation hazard.

The use of civil preparedness resources for emergency response to peacetime radiological incidents must be in accordance with state and local government emergency response plans and performed by properly trained and authorized personnel. States and localities must assume full responsibility for the proper use of civil preparedness resources for peacetime incidents.

K.I (Potassium Iodide) RECORD FOR EMERGENCY WORKERS

Location: _____ **Why was K.I. issued:** _____

PERSONNEL INFORMATION				K.I (Potassium Iodide)				
NAME	DATE OF BIRTH	SOCIAL SECURITY#	DATE	K.I ISSUED	ACCEPTED	DECLINED	TIME TAKEN	COMMENTS
If person declines to take K.I (Sodium Iodide) person must sign and date at bottom. Person acknowledges that they were offered K.I but refused to take it, they have also been informed of the risk of not taking K.I. *Signature:* _____ *Date:* _____								

Officer in Charge _____

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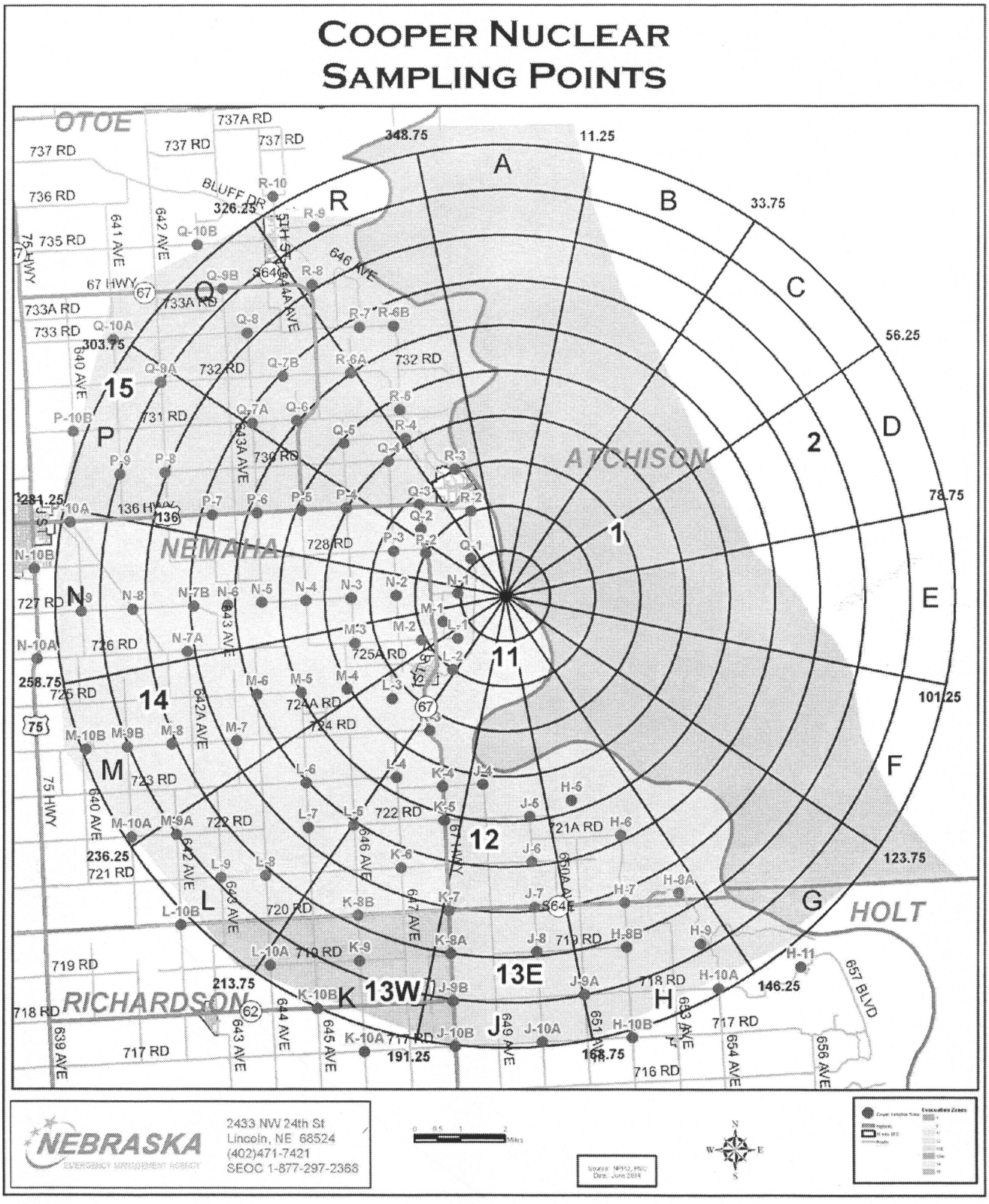
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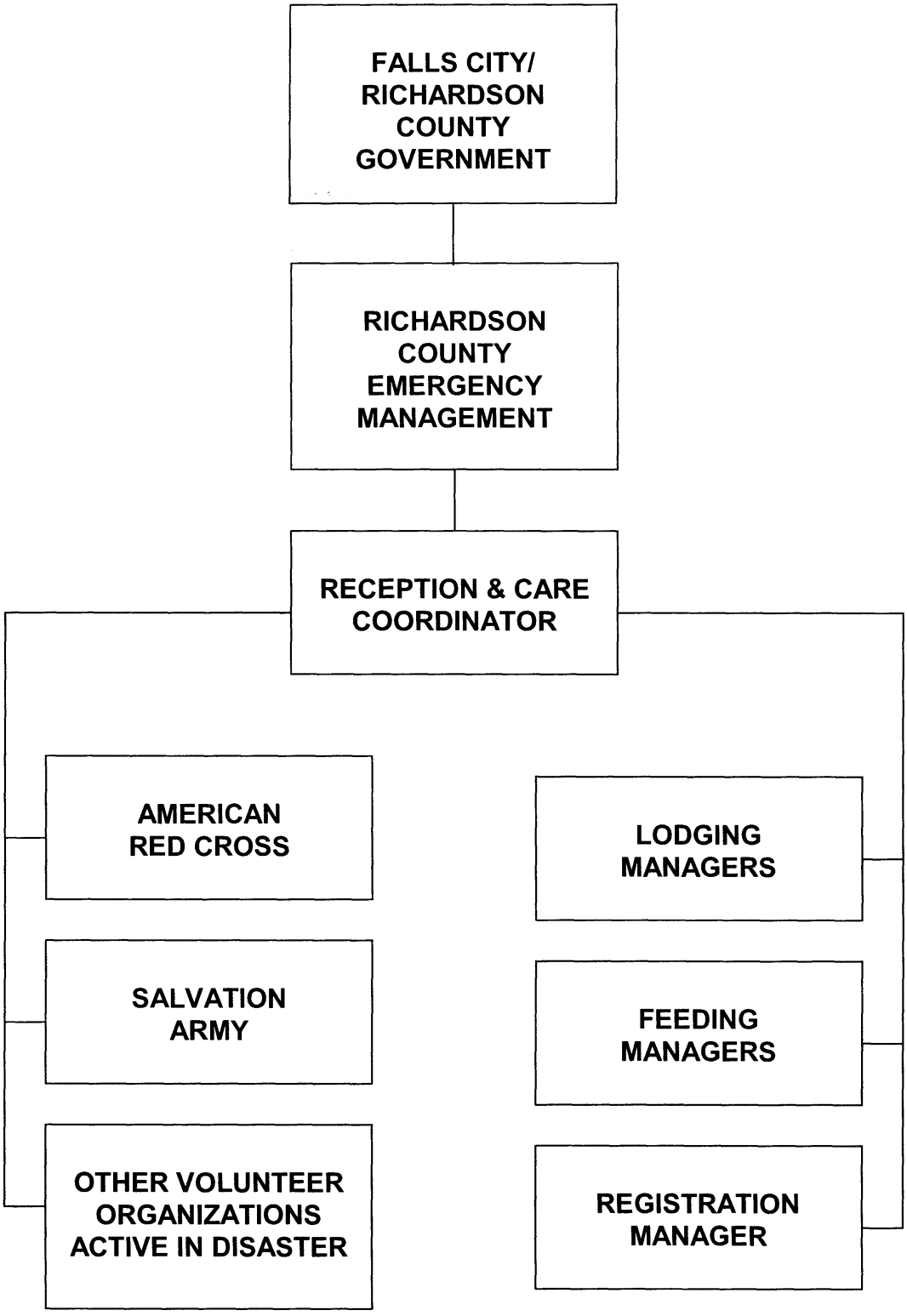
654 AVE
656 AVE
657 BLVD
639 AVE
633 AVE
51TH ST
BLUFF DR
NEBRASKA
EMERGENCY MANAGEMENT AGENCY
2433 NW 24th St
Lincoln, NE 68524
(402)471-7421
SEOC 1-877-297-2368
Miles
Evacuation Zones

EVACUATION / RECEPTION

ORGANIZATION CHART



RECEPTION AND CARE

I. PURPOSE

A. The purpose of this Annex is to provide guidelines for the reception and care of persons evacuated to Falls City/Richardson County due to an emergency at the Cooper Nuclear Station and to establish guidelines for the orderly evacuation of people from the radiation hazard area.

B. General guidelines concerning evacuation and reception are also contained in the Nebraska State Emergency Operations Plan.

II. SITUATION

A. Falls City has been designated as a reception county for approximately 1,294 persons living within ten miles of the Cooper Nuclear Station.

B. It is anticipated that many of the evacuees would stay with relatives and friends outside the 10-mile EPZ. Additionally, only those portions of the EPZ actually under risk of radioactive contamination would be evacuated. There is a high probability that Falls City would receive considerably less than the approximate 1,294 evacuees. This Annex identifies 900 available lodging spaces, with an additional 1.958 lodging spaces available in Nebraska City. Combined, there are enough lodging spaces in Falls City and Nebraska City to accommodate the entire population of the EPZ.

III. ORGANIZATION/RESPONSIBILITIES

Specific responsibilities and tasks are contained in the Reception & Care Coordinator Action Guide, Attachment 1. Some general areas of responsibility are:

A. The primary responsibility for the safety and welfare of the citizens of Richardson County subject to consequences from an incident at Cooper Nuclear Station rests with the local governments within Richardson County.

B. Richardson County will provide for reception and care of evacuees in support of the local governments within 10 miles of Cooper Nuclear Station.

C. The American Red Cross will support Richardson County government. Richardson County will appoint a Reception and Care Coordinator to manage the lodging, feeding, and general welfare requirements of evacuees, within the realm of existing Red Cross disaster relief policies.

D. The Reception and Care Coordinator is responsible for overall coordination of the lodging, and feeding of evacuees.

E. The Reception and Care Coordinator will appoint a staff to carry out his/her responsibilities and requirements. This staff will include, as a minimum: Registration Manager; Lodging Managers; and Feeding Manager.

F. The Emergency Management Director is responsible for: identifying appropriate lodging and feeding facilities and obtaining permission for their use; coordinating required resources (including transportation); and, in general, ensuring proper and adequate government support is provided.

IV. CONCEPT OF OPERATIONS

A. The Reception and Care Coordinator will coordinate lodging and mass feeding operations. He/she will work with the Emergency Management Director to ensure effective coordination of resources. Red Cross activities will be in accordance with the current ARC Disaster Guidelines and Procedures Series - ARC 3000. This includes a capability to respond on a 24-hour basis.

1. Registration: Red Cross will assist local government in the registration of evacuees, and, as applicable, will share information with appropriate government agencies of those evacuees who are housed in Red Cross shelters.

2. Temporary Lodging: When lodging facilities are opened, it will be the responsibility of the Red Cross to maintain all functions and staffing according to Red Cross policy. Some functions will be:

   a. Provide lodging managers,

   b. Registration of all individuals and families,

   c. Selection of lodging sites in coordination with the Emergency Management Director,

   d. Provide food service,

   e. Provide health service in cooperation with the Medical Coordinator(s),

   f. Maintain records,

   g. Provide maintenance to the facility,

   h. Maintain Red Cross I.D.,

   i. Maintain order,

   j. Provide evacuee locator and welfare inquiry services.

3. Feeding: As needed, meals and snacks will be provided to evacuees and workers through both mobile units and fixed feeding sites. Red Cross will be responsible for meal planning, coordination of mobile feeding, identifying feeding sites and resources for the procurement of food and related supplies. Some specific functions will be:

   a. Select sites in coordination with the Emergency Management Director,

   b. Procure food and supplies,

   c. Maintain records and reports,

   d. Provide and maintain mobile feeding units.

B. Lodging/Feeding Facilities

1. Facility List: A listing of the best available lodging/feeding facilities is contained in Attachment 4. These were extracted from a Survey Listing maintained by the Richardson County Emergency Management Director.

2. Selection: The designation of specific lodging and feeding facilities will depend on the actual situation and the number of evacuees. The best possible facilities will be selected from the list in Attachment 4 or from lists maintained by the Red Cross.

C. Implementation

Provisions of this Annex will be implemented as soon as a need for temporary lodging or feeding is identified.

1. Readiness Phase: Communications will be established with all agencies and with the Richardson County EOC. Essential personnel, including volunteers, will be alerted and required material resources (cots, blankets, food, etc.) will be located and pre-positioned, if necessary. The hospital will be alerted to the possibility of receiving evacuee patients.

2. Reception Phase: Once the evacuation decision has been made, action will commence to receive evacuees. Initial action will include opening the Registration Center and selected lodging/feeding facilities.

D. Registration

The Registration Center will be at the Falls City Middle School, 1415 Morton Street. The Alternate Registration Center is at the Prichard Auditorium in Falls City.

1. Registration Center Actions

   a. Register all individuals and families.

b. Assign individuals and families to lodging and feeding.

c. Maintain records of assignments to ensure the equitable distribution of evacuees.

d. Maintain locator records to provide information to authorized persons or agencies.

e. Provide for counseling assistance.

2. Registration Center Guidelines

a. The Registration Center will remain open continuously until all evacuees are cared for.

b. As evacuees arrive at the Center, all individuals and heads of households will be required to register immediately after they have been cleared by monitoring or decontamination personnel.

c. At the time of registration, evacuees will be questioned about the need for assistance and, where possible, will be directed to agencies with capabilities to meet their needs.

d. After registering, those individuals/families with a place to stay may proceed. Individuals/families needing lodging will be assigned to housing at a designated facility.

e. Feeding may be available at the lodging facility. If not, feeding facility assignments will be provided to each person assigned to the lodging facility.

3. Registration Forms: the standard Red Cross registration form may be used. If those are not available, the sample registration form shown in Attachment 4 can be duplicated quickly in sufficient quantities to meet most needs.

E. Transportation

Falls City Public Schools will provide buses, that will be located at the reception centers, to transport individuals without the means and those required to leave their vehicles for later monitoring and/or decontamination, to congregate care centers.

F. Welfare Inquiries

The Red Cross will establish a Family Well-Being Inquiry Operation to answer requests from relatives and friends concerning the safety and welfare of evacuees.

G. Lodging Facility Managers

The American Red Cross and the Richardson County Emergency Management Director will jointly maintain listings of qualified and trained shelter/lodging facility managers.

H. Resource Support

The Richardson County Shelter Coordinator, assisted by the Richardson County Emergency Management Director, will determine transportation and other resource needs and coordinate utilization of resources. The Richardson County Emergency Management Director maintains a resource directory.

V. GENERAL

A. If a radiological accident occurs at Cooper Nuclear Station, it may be necessary for people in the 10-mile EPZ to take protective actions such as in-house shelter or to evacuate the area. Recommended protective actions are determined by the severity of the radiological accident. The plant may declare any one of four accident classifications which are: NOTIFICATION OF UNUSUAL EVENT, ALERT, SITE AREA EMERGENCY, and GENERAL EMERGENCY. (See the Basic Plan for a full explanation of the emergency classifications). Under the declaration of UNUSUAL EVENT or ALERT class of incident there will normally be no off-site effects or protective measures required, however, if a SITE AREA or GENERAL EMERGENCY condition is declared, the public must be notified and warned of any recommended protective actions that are required. From the start of a radiological accident/incident to the termination of the problem it is the responsibility of the nuclear power plant personnel to keep state and local governments informed and to provide both on-site and off-site radiological monitoring and hazard assessments as well as to recommend to local and/or state government what actions or protective measures should be taken to protect the public in the radiation hazard area. When the State Field Command Post becomes operational, monitoring teams from DHHS, Dept of Public Health will assess the health hazard, coordinate the information with the nuclear power plant personnel, and notify local governments of recommended protective actions.

B. Local government has the primary responsibility for providing protection to its citizenry and ensuring that those persons affected by a radiological emergency can be relocated to the Nebraska City and Falls City Reception Centers not affected by a radiation hazard.

VI. ACTIONS NECESSARY

Preparations for direction to take in-house shelter or for a possible evacuation of residents must begin upon initial notification of an accident, incident, or dangerous situation at the nuclear power plant. This involves the review and updating of Emergency Response Plans, extensive interaction and coordination between involved

agencies and all levels of government, the collection of data and the alerting and pre-positioning of required personnel and resources. The more that can be accomplished during this phase, the smoother the required protective action can be implemented. Under emergency conditions where immediate in-house shelter or evacuation is necessary, the tasks involved will have to be compressed and included, where possible, with the actual protective action tasks.

A. In-House Shelter could be the initial protective action recommended. This could occur in the event of a short term or low-level radioactive release where DHHS, Dept of Public Health determines that moving the affected population into shelter would provide sufficient protection. Additionally, precautionary in-house shelter for selected areas near the nuclear facilities are automatic actions that occur upon declaration of the two most severe classes of emergency, SITE AREA EMERGENCY and GENERAL EMERGENCY.

B. Evacuation Should an evacuation become necessary, the evacuation order will be based on the recommendation of DHHS, Dept of Public Health or, in the case of a fast-breaking incident, upon recommendation by the plant when rapid evacuation is critical to the continued health and safety of the population. In the latter event, evacuees will have little preparation time and will therefore require maximum support in the reception areas. Local government resources may be stressed to the maximum because of the short warning time which will not permit the pre-positioning of outside support.

VII. EVACUATION DECISION CONSIDERATIONS

A. Evacuation may be only one of several protective action alternatives. Care must be exercised by decision makers to ensure that a directed evacuation will not place the affected population into a more dangerous situation than posed by the primary hazard. When ordering the evacuation, the following considerations should be addressed:

1. Weather conditions,

2. Evacuation routes, their capacities and susceptibilities to hazards,

3. Alerting of reception counties (Otoe & Richardson) to receive evacuees,

4. Modes of transportation for evacuees and for those unable to provide their own,

5. The location in the evacuation area of "special needs" residents. These may pose unique evacuation problems and the evacuation itself could be more life threatening than the initial hazard.

B. Definition of the area to be evacuated will be determined by those officials recommending or ordering the evacuation based on the recommendations of appropriate agencies. The hazard situation will be continually monitored in case changing circumstances, such as a wind shift, require re-definition of the actual or potentially affected area. The Emergency Management Director will ensure that the evacuation area is defined in terms clearly understandable by the general public and that this information is provided to the Public Information Officer for rapid dissemination to the public. See Annex E.

C. Evacuation Warning: All warning modes will be utilized to direct the affected population to evacuate. The primary alert and notification system consists of a combination of fixed sirens and tone alert radios. Whenever possible, the warning should be given on a direct basis as well as through the media. The use of law enforcement and fire emergency vehicles moving through the affected area using sirens and public address systems may augment the primary system. Door-to-door notification should also be considered, particularly in rural areas. Law enforcement personnel will sweep the evacuated area to ensure all persons have been advised and have responded. Persons who refuse to follow evacuation instructions will be advised to seek in-house shelter as a minimum precaution, then left alone until all who are willing to leave have been provided for. Then, time permitting, further efforts will be made to persuade the stay-puts to evacuate.

D. Voluntary Evacuations: The voluntary movement of people away from the vicinity of the nuclear facility without official declaration of an evacuation. Voluntary evacuation will occur and is dependent on the general public's perception of the actual or potential dangers that exist. Disaster experience in Nebraska and evaluation of past nuclear incidents would indicate a possibility exists for voluntary evacuations in excess of 50% of the population of the affected area (within 10 miles of the plant).

E. Emergency Public Information: The Public Information Officer will ensure that evacuation information is disseminated to the media on a timely basis. Instructions to the public will include:

1. Location of pre-designated assembly areas.

2. Location of reception centers in Nebraska City and Falls City,

3. Traffic routes to be followed,

4. Emergency situation updates.

Specific PIO guidelines are set forth in Annex E.

F. Transient Populations

Cooper Nuclear Station has installed outdoor warning sirens and tone alert radios to alert the public in towns, Brownville State Recreation Area, Indian Cave State Park, Steamboat Trace Trail, and along the portion of the Missouri River within the

Plume EPZ. Indian Cave State Park procedures call for evacuating the park when the warning sirens sound. Verification is done by a representative at the State EOC from the Nebraska Game and Parks Commission. Sirens are currently located at each site as depicted in the Cooper Alert and Notification Design Report.

G. Mass Care of Evacuees

While many evacuees will go to the homes of friends and relatives, there will be requirements for temporary mass lodging and feeding. Mass care of evacuees will be managed by the Richardson County Emergency Management Agency Reception & Care Coordinator and the American Red Cross.

1. Falls City (Richardson County) and Nebraska City (Otoe County) are designated reception counties for the Cooper Nuclear Station. Combined, the two reception areas will accommodate the entire EPZ population

2. The Otoe County Reception and Care Center is located in Nebraska City (refers to Annex G Attachment 5a & 5b for address and map) and is managed by Otoe County Emergency Management. Refer to the Otoe County Emergency Management Nuclear Related Standard Operating Guide for Reception and Care for staffing, management, handling service animals, and operating procedures.

3. The Richardson County Reception and Care Center is located in Falls City (refers to Annex G Attachment 5c & 5d for address and map) managed by Richardson County Emergency Management. Refer to the Richardson County Emergency Management Nuclear Related Standard Operating Guide for Reception and Care for staffing, management, handling service animals, and operating procedures.

H. Schools

1. The Richardson County Emergency Management Director will initially notify the affected School Superintendents during the ALERT phase of a possible incident. Upon notification of a SITE AREA EMERGENCY, the Emergency Management Director will inform the School Superintendent of what action is required. This includes schools outside the EPZ that may have students from within the EPZ.

2. School children attending school outside the EPZ but living inside the EPZ and who are normally bused will be released to their parents or guardians prior to school being dismissed. After normal dismissal time the remaining children will be transported to the appropriate Registration Center. Requests for transportation instructions or support will be made to the Richardson County Emergency Management Director.

I. Access Control

In an evacuation, the problem of access control and area security become extremely important. Law enforcement agencies will establish a perimeter control to provide security and protection of property left behind as well as limiting sightseers. These control points should be verified against the subarea descriptions to ensure complete coverage. An access pass system will be established. Fire departments will take measures to ensure continued fire protection.

J. Movement

It is anticipated that the primary evacuation mode will be in private vehicles. Actual evacuation movement efforts will be controlled by the law enforcement agencies involved. See Annex C for evacuation routes.

1. Evacuation routes will be selected by law enforcement officials at the time of the evacuation decision. Movement instructions will be part of the warning and subsequent public information releases.

2. If at all possible, two-way traffic will be maintained on all evacuation routes to allow continued access for emergency vehicles. Specific traffic control points will be determined at the time based on anticipated traffic volume and identifiable problem areas. See Annex C for key evacuation routes and potential traffic control points.

3. Law enforcement communications will coordinate use of wrecker services needed to clear disabled vehicles.

4. Law enforcement will coordinate traffic control devices such as signs and barricades with the Public Works Department/County Highway Department.

K. Access and Functional Needs Individuals

1. Access and Functional Needs Individuals
The CNS ETE provides a general idea of the number of access and functional needs people within the 10-mile EPZ.

   a. An annual survey is conducted by the Cooper Nuclear Station Emergency Preparedness Department to determine the exact number of people, and where they live, who may require transportation assistance within the 10-mile EPZ.

   b. The names and addresses of persons requiring transportation assistance within the 10-mile EPZ are kept current and in a confidential file by the Southeast District Health Department through the local Emergency Management Agency Directors as a result of the annual surveys.

c. The Southeast District Health Department ensures that these individuals are aware of any incident and should assistance be needed for evacuation, makes certain that transportation is available to remove them from the 10-mile EPZ.

1. Access and Functional Needs Groups

a. There are no licensed care facilities located within the 10-mile EPZ.
b. There are no jails located within the 10-mile EPZ.

c. Analysis did not consider persons in apartments or educational institutions.

d. The "Providence Mennonite School", an elementary school, located at 73145, Highway 136, has between 12 and 13 students who are transported to and from the school by passenger vans. One (1) student lives within the 10-mile EPZ but arrangements have been made, should an evacuation be necessary, to evacuate to a location outside the 10-mile EPZ where the student and parents can be reunited. The school would self-evacuate using their passenger vans and it would be immediately once the decision to evacuate was made.

VIII. RETURN

Reoccupation of an evacuated area requires the same considerations, coordination, and control required in the original evacuation (see Attachment 6 to this Annex for Post Emergency Considerations). The return decision and order will be made by Chief Executives after the threat has passed and the evacuated area has been inspected by DHHS, Dept of Public Health, fire, law, and utilities personnel for safety. Some specific return considerations are:

A. Ensure there is no radiological hazard to the public,

B. Ensure that homes have been inspected to determine if they are safe for occupancy,

C. Determine the number of evacuees who will have to be transported back to their homes,

D. Coordinate traffic control and movement back to the area,

E. Develop public information messages designed to keep returning residents informed and apprised of assistance and services which are available to them.

IX. TRANSPORTATION

The Emergency Management Director will determine requirements for special transportation and coordinate the use of transportation resources in support of an evacuation.

A. Assembly Area: If the potential evacuated population is of significant size, there could be many people without private transportation. Convenient centralized locations in the EPZ have been identified as assembly areas. These locations will be announced in evacuation instructions issued by the Public Information Officer. Residents will be instructed to go to the assembly areas for bus transportation out of the affected area.

B. Special Needs Transportation: There could be cases where elderly, infirm, or handicapped persons in the evacuation area will not be able to get to the assembly point or would need a special type of transport. The Emergency Management Director will make provisions for the use of government or volunteer vehicles to transport these individuals. The public will be instructed to notify the Emergency Management office of any special transportation problems.

C. Health Care Transportation: Currently, there are no nursing homes or hospitals within the 10-mile EPZ.

D. Transportation Resources: Buses operated by the various school systems will be available during emergencies. The Richardson County Emergency Management Director maintains a listing of such resources. . An agreement with the Nemaha School District has been reached to provide drivers and buses for the purposes of evacuation transport (information requested pending receipt of MOU from local counties).

X. SOCIAL SERVICES

The Administrator of the Falls City office of Health and Human Services will serve as the Social Services Coordinator and may be a member of the EOC Staff. The Coordinator will advise local executives on matters pertaining to social services, ensure that activities are administered in an orderly, efficient manner, develop procedures for determining needs of disaster victims, and process inquiries concerning disaster victims. The existing social services staff, augmented as necessary from other organizations, will serve as supporting staff.

A. The Health and Human Services will identify any special needs groups (elderly, handicapped, physically impaired, mentally incompetent), and in the event of an emergency, shall provide such information to the Emergency Management Director setting forth names, addresses, affliction, and any logistical requirements that have been identified to ensure that human needs and safety are provided for.

B. Residents may be provided emergency counseling services by referral from the Falls City office of the State Health and Human Services to the mental health professionals and members of the local ministerial association.

C. Elderly, infirm, and other special needs groups: Health and Human Services will attempt to identify and assist any residents who may be unable to implement in-house shelter or evacuate on their own. This service will be stressed in Emergency Public Information releases and should be coordinated with the PIO.

D. In-House Shelter Support: Health and Human Services staff and volunteers will assist by providing social services for the sheltered population where possible during the in-house shelter phase. Assessments will be made of welfare service needs and reported to the EOC.

E. Returnee Needs

1. Health and Human Services personnel will establish assistance centers as soon as possible after evacuated areas are declared safe for reoccupation.

2. Efforts will be made to reunite families; institute and expand counseling and other social services, including emergency financial assistance where necessary.

XI. RECEPTION AREAS

A. Reception areas should be prepared to receive the full resident population of the EPZ. It is expected that the majority of evacuees will seek shelter from other sources.

B. Radiological monitoring, decontamination and recording of estimates of individual radiological exposure will be accomplished as directed by DHHS, Dept of Public Health.

XII. STATE SUPPORT

During a radiological emergency, evacuation support and resources may be available from a number of state agencies. Assistance will generally be requested through the Nebraska Emergency Management Agency. Assistance provided may include manpower, transportation, supplies, and technical advice. The following agencies may become involved in the emergency evacuation of an area:

A. Department of Roads: The Department of Roads will provide updated information on road conditions, load bearing capacities and usability to support evacuation or rerouting of traffic. They will also provide equipment and manpower to maintain or repair roads and bridges to usable condition in support of an evacuation. Personnel may assist in traffic control by erecting barricades, warning lights and signs, or providing manpower.

B. DHHS, Dept of Public Health: DHHS, Dept of Public Health will make recommendations to local authorities and the Nebraska Emergency Management Agency regarding health problems within an area which may dictate that evacuation of that area is necessary. If a evacuation is initiated, maintenance of the health standards in reception areas will be closely monitored. The prevention of overcrowding, spread of disease, and development of unsanitary conditions/practices is a responsibility of this agency.

C. State Fire Marshal: The State Fire Marshal may coordinate manpower from local fire departments for disaster assistance.

D. State Patrol: The State Patrol will perform traffic control at established control points, assist in maintaining order, check passes to prevent unauthorized entry into areas, obtain medical help, and direct emergency vehicles to the proper destination within the affected area.

E. National Guard: The National Guard will provide support to the civil authorities when authorized by the Governor. This support may include intelligence, manpower, assistance in direction and control, guards for evacuated areas, and equipment in support of an evacuation. Trucks, fixed wing and rotary wing aircraft, buses, and other equipment may be available on a limited basis from the National Guard. Any National Guard facility or area may be used as an assembly or dispersal area in support of evacuation procedures with the approval of the local commander.

F. Game and Parks Commission: The Game and Parks Commission field personnel may be able to provide information on local conditions, act as guides along evacuation routes or to augment law enforcement personnel in traffic control, and assist in the notification and evacuation of persons using State parks, State recreation areas, and camping facilities in the affected area.

XIII. PRIVATE AGENCIES

A. The American Red Cross (ARC) is responsible for providing emergency mass care for evacuees at shelter locations. This would include health and welfare inquiry support services. Fixed or mobile feeding support for disaster workers may also be provided.

In addition the ARC is responsible to coordinate the support activities for other volunteer agencies caring for personal needs of disaster victims. See Attachment 7. Services available include, but are not limited to:

1. Emergency care assistance:

   a. Food for evacuees and emergency workers,

   b. Temporary shelter,

   c. Clothing.

2. Emergency family services:

   a. Food,

   b. Clothing,

   c. Rent,

   d. Other essentials.

3. Recovery aid to families:

   a. Case work service,

   b. Maintenance,

   c. Medical/nursing care,

   d. Occupational supplies/equipment.

B. Salvation Army services include, but are not limited to:

1. Food for evacuees,

2. Clothing,

3. Temporary shelter.

C. Churches and church groups function as support organizations to provide response and recovery assistance to disaster victims. They may provide:

1. Food to disaster victims,

2. Crisis counseling for evacuees/emergency workers.

XIV. TRAINING

The Richardson County Emergency Management Director will ensure that appropriate training is made available to officials and volunteers who would participate in reception and care activities. Federal training programs in Shelter Systems and Shelter Management are available through the Nebraska Emergency Management Agency. The Red Cross offers training in Shelter Operations.

LIST OF ATTACHMENTS

Attachment #	Item	Page
1	Reception and Care Coordinator Action Guide	G-17
2	Evacuation/Reception Routing Chart	G-20
3	Public Transportation Assembly Areas	G-21
4	Reception Facilities – Falls City	G-22
5	Reception Facilities – Nebraska City	G-24
6	Post Emergency Considerations	G-26
7	American Red Cross	G-31
8	Sample Registration Form	G-32

Reception & Care Coordinator

NOTIFICATION OF AN UNUSUAL EVENT: Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

Actions Required: No action required.

Release Potential: No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

ALERT: Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

Actions Required:
(1) Review Reception Plan.
(2) Notify Red Cross staff and volunteers and place on stand-by status.
(3) Determine availability of resources which may be needed.

Release Potential: Any releases are expected to be limited to small fractions of the EPA Protective Action Guidelines exposure levels.

SITE AREA EMERGENCY: Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Actions Required:
(1) Determine approximate number of residents and transients affected within the EPZ that may be directed to evacuate to Nebraska City.
(2) Determine availability of resources needed to support reception of evacuees (including forms, maps, etc.)
(3) Coordinate procedures for directing evacuees from monitoring decontamination area to registration area with RO and Red Cross—ensuring no one is registered without first being monitored and cleared by decontamination center personnel.
(4) Coordinate possible transportation requirements with Emergency Management Director.
(5) Coordinate requirements for first aid and crisis counseling personnel at registration center with Medical Coordinator.
(6) Coordinate anticipated routes and traffic control requirements from registration center to lodging facilities with law enforcement.
(7) Prepare registration center for activation.
(8) Select possible lodging and feeding facilities in cooperation with Emergency Management Director. Contact selected facilities and request permission to use.
(9) Coordinate methods to provide evacuees with official information and current status with PIO.
(10) Coordinate communications requirements for registration, lodging, and feeding facilities with Communication Officer.
(11) Determine specific requirements for receiving evacuees with "special needs" (handicapped, infirmed, etc.).

Reception & Care Coordinator

(12) Coordinate procedures to implement Family Well-being Inquiry (FWI) services with the Red Cross.
(13) Notify Emergency Management Director of any anticipated resource (equipment, supplies, or personnel) shortfalls.

Release Potential: Any releases are not expected to exceed EPA Protective Action Guideline exposure levels.

GENERAL EMERGENCY: Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Actions Required:
(1) Staff and activate registration center and ensure adequate resources are in place (forms, equipment, supplies, etc.).
(2) Activate lodging and feeding facilities—and implement mass feeding, as needed. Maintain 24-hour operational capability.
(3) Coordinate all routes from registration center to lodging facilities with law enforcement.
(4) Request crisis counselors for registration center and lodging facilities as required.
(5) Coordinate communications requirements with EOC Communications Officer.
(6) Provide periodic status reports to EOC.
(7) Request additional resources as required, from Emergency Management Director.
(8) Coordinate public information updates for evacuees with PIO.
(9) Assign evacuees with "special needs" to barrier free or appropriate facilities.
(10) Coordinate evacuee information with Red Cross for FWI services.
(11) Maintain all appropriate records (registration, lodging/feeding assignments, expenses, operational logs, etc.).
(12) Coordinate transportation requirements with Shelter Coordinator.
(13) Coordinate parking and security/law enforcement requirements at registration and lodging facilities with law enforcement.

Release Potential: Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels for more than the immediate site area.

Reception & Care Coordinator

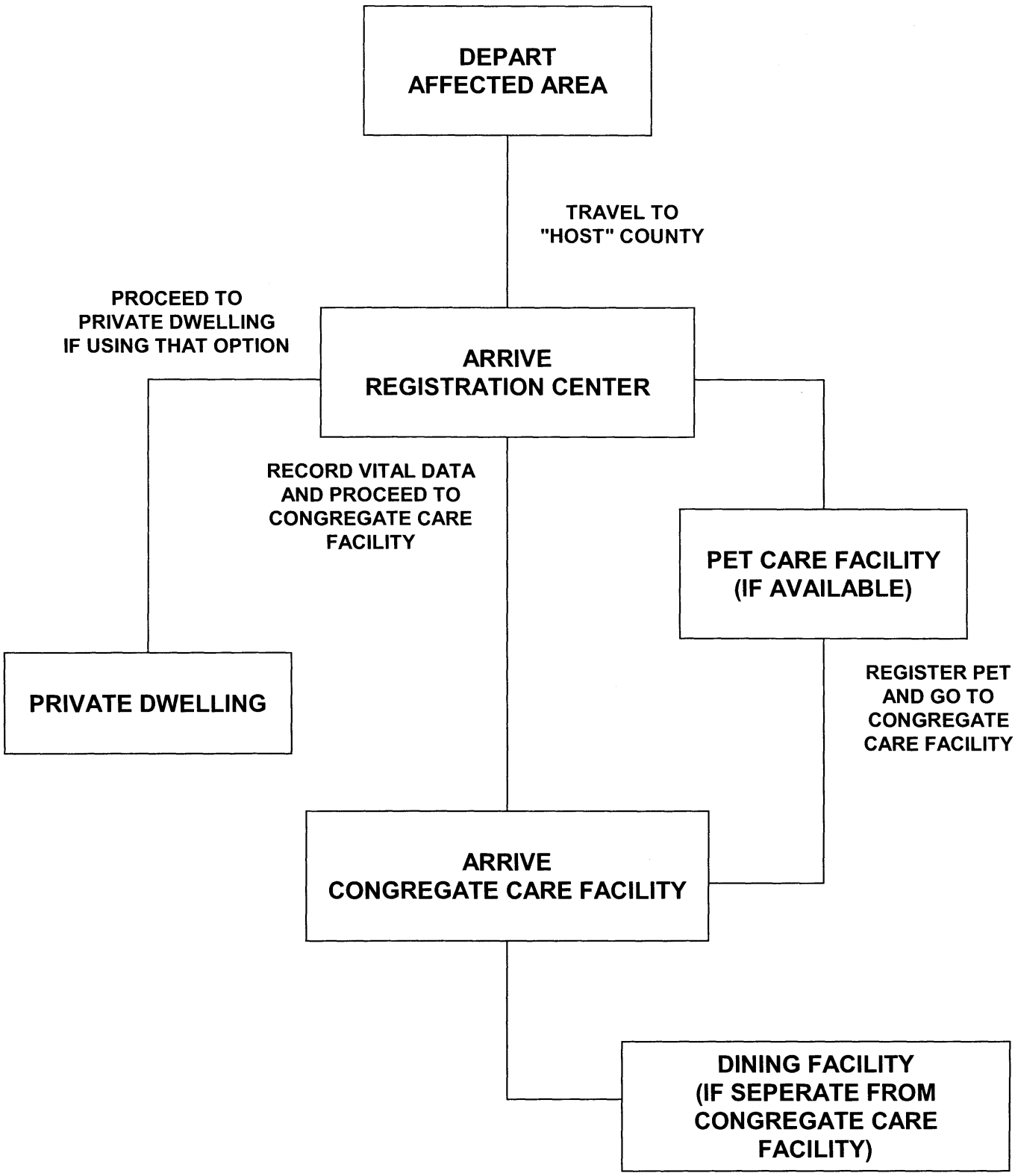
POST EMERGENCY PHASE: Events that begin immediately after evacuation procedures have been implemented. Consists of Relocation, Reentry, and Return.

Actions Required:

(1) Coordinate with Richardson County EOC and Nemaha County EOC to determine when to release evacuees.
(2) Terminate operations of registration center.
(3) Coordinate with PIO on instructions and precautions for evacuees to return home.
(4) Advise evacuees they may return home when directed by EOC.
(5) Continue status reports to EOC until all evacuees have departed.
(6) Terminate operation of lodging and feeding facilities as evacuees depart. Coordinate clean-up of lodging and feeding facilities.
(7) Advise Emergency Management Director of any transportation requirements to support evacuees return home.
(8) Consolidate all files for final review.
(9) Prepare required reports to deliver to EOC.

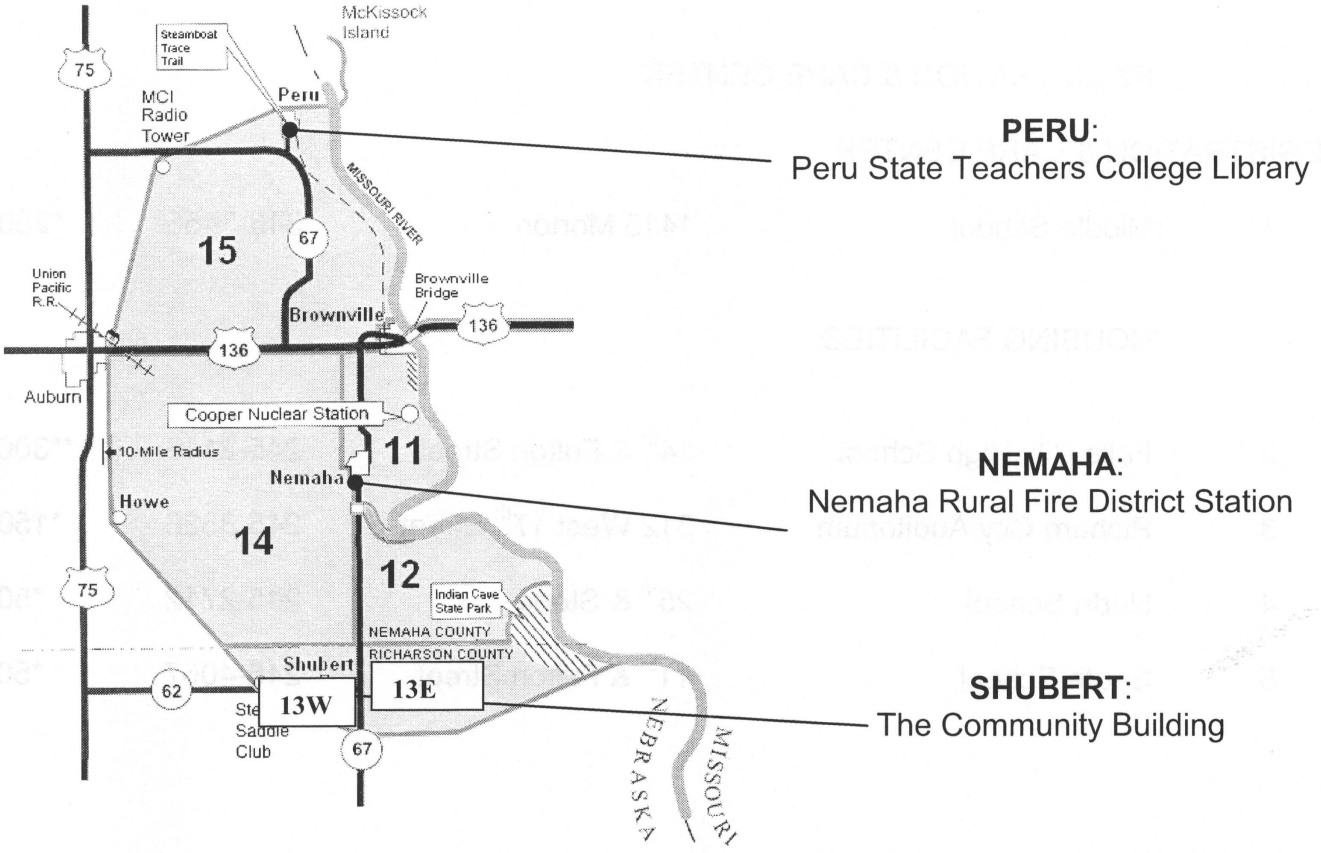
EVACUATION / RECEPTION

ROUTING CHART



PUBLIC TRANSPORTATION ASSEMBLY AREAS

If the potential evacuated population is of significant size, there could be many people without private transportation. Convenient assembly areas at centralized locations have been identified and are listed below. These locations will be announced in evacuation instructions issued by the Public Information Officer. Residents will be instructed to these assembly areas for bus transportation out of the affected area.



Additional Transportation Resources:

The Emergency Management Director will determine requirements for special transportation and coordinate the use of transportation areas in support of an evacuation.

LOCATION	NUMBER OF VEHICLES	CAPACITY
Auburn Public Schools	3 vans	10 persons each
	2 buses	35 persons each
	1 bus	47 persons
	1 bus	53 persons
	1 bus	54 persons
	2 buses	64 persons each
	1 bus	66 persons each
Peru	1 bus	16 persons
TOTAL:	**3 vans**	**30 persons**
	9 buses	**434 persons**

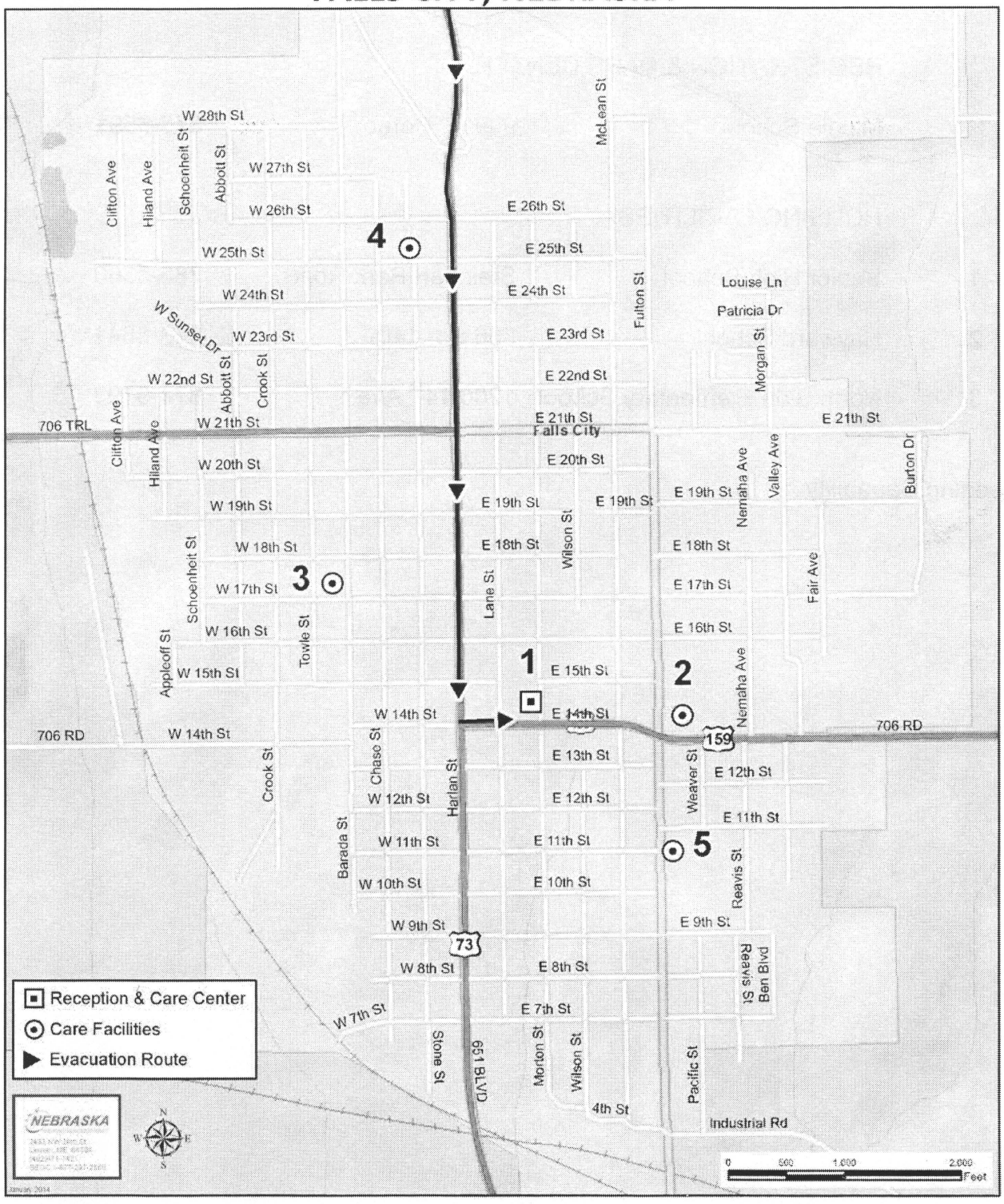
RECEPTION FACILITIES
RICHARDSON COUNTY/ FALLS CITY, NEBRASKA

MAP LOCATOR	NAME	ADDRESS	TELEPHONE	LODGING SPACES
	REGISTRATION & CARE CENTER:			
REGISTRATION & CARE CENTER:				
1	Middle School	1415 Morton	345-3455	*250
	HOUSING FACILITIES:			
2	Falls City High School	14th & Fulton Street	245-2116	**300
3	Pichard City Auditorium	312 West 17th Street	245-3326	*150
4	North School	25th & Stone	245-2712	*50
5	South School	11th & Fulton Street	245-4067	*50

* Feeding Capability
**Limited Feeding Capability

* Feeding Capability
† No Shower Facilities

RECEPTION AND CARE FACILITIES
FALLS CITY, NEBRASKA

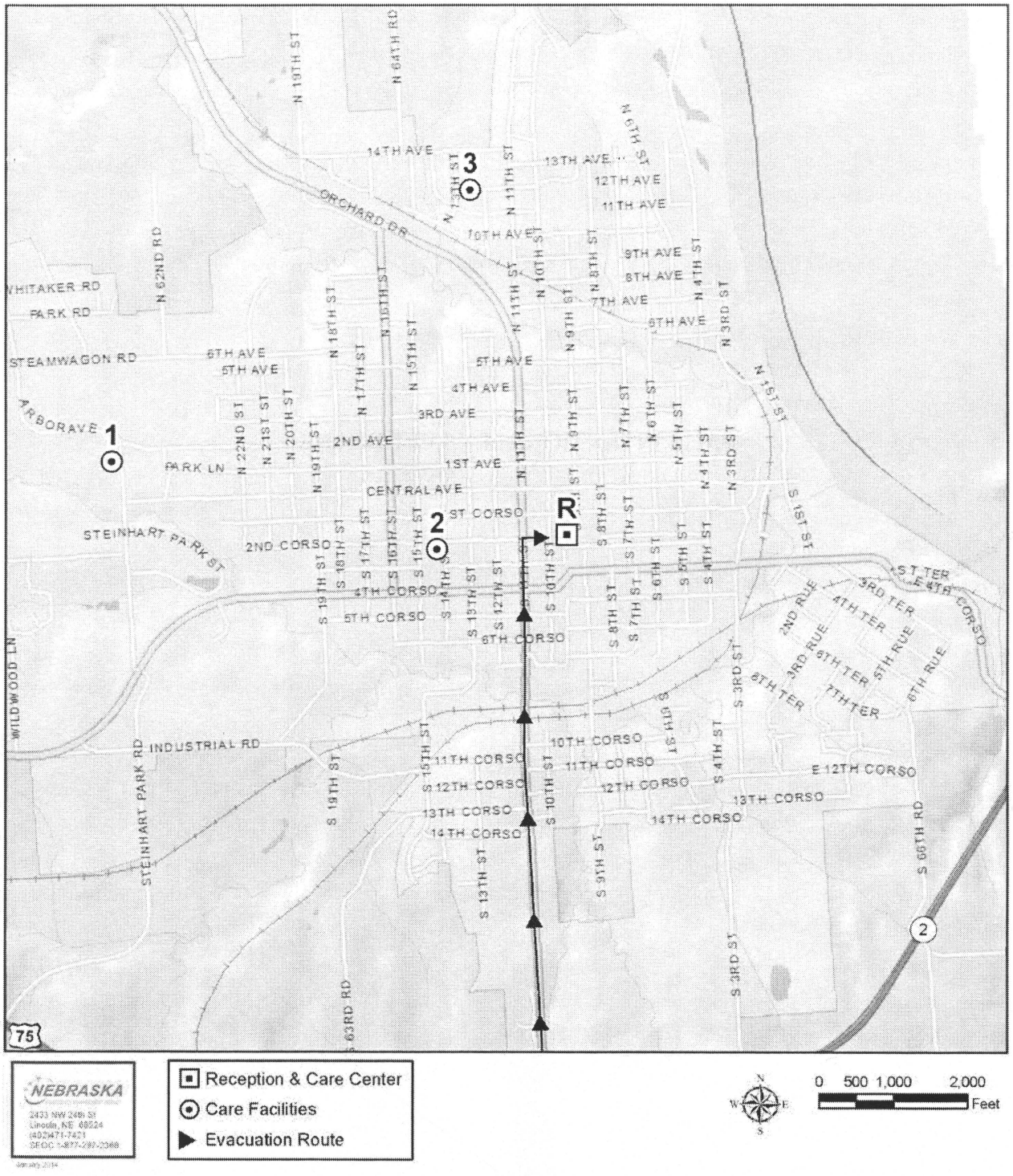


RECEPTION FACILITIES
NEBRASKA CITY, NEBRASKA

MAP LOCATOR	NAME	ADDRESS	TELEPHONE	LODGING SPACES
	REGISTRATION & CARE CENTER:			
R	Middle School	909 1st Corso	`873-5591	*352
	HOUSING FACILITIES:			
1	Senior High School	Steinhart Park Road	783-3360	*446
2	Hayward School	306 So. 14th	873-6641	*252
3	North Side Elementary School	1200 14th Ave.	874-9193	*277

* Feeding Capability

RECEPTION AND CARE FACILITIES
NEBRASKA CITY, NEBRASKA



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POST EMERGENCY CONSIDERATIONS

I. GENERAL

The Post-Emergency Phase begins immediately after evacuation procedures have been implemented. Prior to actions being taken during this phase, DHHS, DIV of Public Health will initiate "Risk Assessment Actions" refer to Annex N of the State RERP for detailed actions . The results of this assessment will ultimately determine what, if any, additional protective measures should be implemented. The following are three steps that may be initiated after Risk Assessment Actions have been carried out. The decision to implement these steps will be made by the Governor or his Authorized Representative based on DHHS, DIV of Public Health assessment and recommendations.

Post Emergency operations will be coordinated with county actions by the Governor's Authorized Representative or his designee through the Nebraska Emergency Management Agency.

A. Relocation

Relocation refers to a protective action that is taken during the post-emergency phase to avoid chronic exposure to gamma radiation from deposited materials in areas where the projected first year dose exceeds the relocation protective action guide (PAG). People who are to be relocated will be moved to a permanent or long-term facility. Relocation will apply in two circumstances:

1. Individuals who were evacuated from the plume EPZ during the emergency phase from areas later found to be highly contaminated will be relocated.

2. Individuals who were not evacuated or have been sheltered during the emergency phase and who may be facing a chronic exposure problem will be relocated.

NOTE: The first step for individuals that have been previously sheltered during the emergency phase would be to evacuate these individuals. Once the determination has been made that the area has or will receive a high concentration of deposited material these individuals will be relocated.

B. Reentry

Reentry refers to temporary entry of individuals into a restricted zone under controlled conditions. Once relocation has been implemented, individuals will only be allowed to reenter the established restricted zone on a need-only basis. Access control points will be established around the boundary of the restricted zone(s) to provide for radiation control for individuals who may need to reenter. All requests to reenter a restricted area will be evaluated by the local EOC. Upon approval, individuals will report to the Emergency Worker Decontamination Station, where they will receive their dosimetry and instructions on its purpose and use by DHHS, DIV of Public Health personnel. Exposure control will be in

accordance with the guidelines set forth by DHHS, DIV of Public Health. Individuals will out-process at the Emergency Worker Decontamination Station after emergency from the restricted zone for contamination control measures.

a. Re-entry refers to the temporary authorized entry of individuals into a restricted zone under controlled conditions.

b. Once the plume phase evacuation and ingestion phase relocation have been implemented, individuals will only be allowed to re-enter the established restricted zone(s) on a need only basis. The "Need-Only" basis will be determined by local authorities in consultation with DHHS, DPH but may include the need to feed livestock and obtain prescription medications, etc.

c. Access control points will be established around the boundary of the restricted zones to provide for radiation control for individuals who may need to re-enter. The control points should be either at or near the boundary of the restricted zone or at a convenient location outside the zone and will not necessarily be the same access control points established for the emergency phase of the operation.

d. DHHS, DPH will determine the amount of time, including transit time, that an individual could remain in a restricted zone without exceeding the more limiting annual dose limits listed below:

(1) A total effective dose equivalent equal to 0.05 Sv (5 REM).

(2) The sum of the deep dose equivalent and committed dose equivalent to any individual organ or tissue other than the lens of the eye equal to 0.5 Sv (50 REM).

(3) An eye dose equivalent of 0.15 Sv (15 REM), or

(4) A shallow dose equivalent of 0.5 Sv (50 REM) to the skin or any extremity.

e. Local Governmental Officials will set other restrictions as deemed necessary for personnel desiring to re-enter the restricted zone.

Refer to Paragraph VII.A in Annex N of the State RERP for additional information

C. Return

Return refers to the reoccupation of areas cleared for unrestricted residence or use by previously evacuated or relocated population. Individuals will only be allowed to return once areas have been monitored and it has been determined that the area has not been significantly contaminated by the plume. Return into

other areas will be allowed once full decontamination procedures have been implemented and contamination levels are below PAG's set forth by DHHS, DIV of Public Health. Upon the determination by DHHS, DIV of Public Health that the environmental conditions in the affected areas are safe for public access, a recommendation to relax protective actions and begin return operations will be made to the Governor's Authorized Representative. No return will be authorized without the concurrence of the Governor. The Governor's Authorized Representative will advise the state and local response agencies of the determination to relax protective actions and to begin coordinating return activities. Nemaha County will coordinate local return activities from the EOC and will keep the State EOC informed. Cleared areas will be opened when clearly definable boundaries are available (i.e. highways, streets, etc.). At that time, the EOC staff will consider the following needs in preparing for the return of residents to the affected area(s):

1. A plan should be developed by the locals which allows evacuees who live in an area evacuated in which no contaminated was subsequently found, to return home.

2. The plan should be flexible and takes into account post- accident conditions, the size of the area evacuated and the total population evacuated. Above all else should be designed to minimize danger to those returning home.

3. Executing the plan in phases may assist in carrying it out.

4. Phase One of the Return may include a public education program informing the citizens:

    a. When "Return" of evacuee will begin, what they should expect to find upon returning to their individual homes, and what they should do upon their return (open windows to ventilate home, throw out spoiled food, take pictures of any forced entry for possible reimbursement, etc.).

    b. Of a possible time schedule for "Return", maybe certain areas prior to others, instead of all at once.

    c. That a possible strict curfew has been implemented for a period of time until the "Return" has been completed.

    d. That returning evacuees will be required to show some proof of identification to ensure only those who live within the evacuated area are being allowed back into the evacuated area.

    e. That additional monitoring teams may also verify that the designated area for return is actually free of ionizing radiation.

5. Phase Two of the Return may include sending in agencies and groups that participate in restoring normal operations after a disaster. These include law enforcement, fire departments, medical and health care, public works (gas,

electric, sewer and water), relief agencies, insurance agents, and businesses such as heating, plumbing and air (to assist with turning on gas, etc.)

6. Phase Three of the Return, while evacuees are returning, may require ensuring additional emergency response personnel, vehicles and equipment are available (e.g., fire and rescue, law enforcement, wrecker trucks, etc.) to respond to any traffic accidents and assist returning evacuees with any other unforeseen problems.

7. Phase Three of the Return may require that pre-existing security around the former restricted area(s) being returned to evacuees, remain in place for a period of time; to include road-blocks to keep people other than evacuees from entering the area and to keep the rescue routes open.

AMERICAN RED CROSS

The purpose of this Attachment is to establish American Red Cross policies, procedures and plans, and identify areas of responsibility in the care and sheltering of evacuees.

> The nature and scope of the emergency will determine specific actions to be taken by the Red Cross, but in any case, the Red Cross will be responsible for carrying out its mandated responsibilities, as indicated in Act of Congress, January 5, 1905, as amended, 36 US. Code 3, Fifth.

The Red Cross will not assume any responsibility for government functions, but will support state and local government and will provide assistance to individuals and families as indicated within the realm of existing Red Cross disaster relief policies. Red Cross will assist with the registration of evacuees, shelter, feeding and other support, as the situation may indicate. The Red Cross will be responsible for only those costs committed by its authorized representative.

SHELTER

Red Cross will support government in the evacuation and reception of evacuees; liaison personnel will be provided to maintain effective coordination of resources.

When shelters are opened by the Red Cross, it will be the responsibility of the Red Cross to maintain all functions and staffing according to Red Cross policy.

Function:

1. Provide shelter managers
2. Registration of all individuals and families
3. Provide food service
4. Provide health service
5. Maintain records
6. Provide maintenance to the shelter
7. Billeting
8. Maintain Red Cross I.D.
9. Maintain order

FOOD SERVICE

As needed, meals and snacks will be provided to evacuees and workers through both mobile and fixed feeding sites. Red Cross will be responsible for meal planning, coordination of mobile feeding, identifying feeding sites and resources for the procurement of feed and related supplies.

Function:

1. Procure food and supplies
2. Maintain records and reports
3. Provide and maintain mobile feeding units

RECEPTION

When requested, Red Cross will assist local government in the registration of evacuees, and as applicable, will share information with appropriate government agencies regarding those evacuees who are housed in Red Cross shelters.

Date In

REGISTRATION FORM FOR EVACUEES
ASSIGNED TO CONGREGATE CARE HOUSING/VOLUNTEER HOMES

Date Out

1 _____ (Name-Head of Household) _____ (Age) _____ (Sex)

2 _____ (Spouse) _____ (Age) _____ (Sex)

3 _____ (Family Member) _____ (Age) _____ (Sex)

4 _____ (Family Member) (Continue On Back If Needed) _____ (Age) _____ (Sex)

5 _____ (Home Address) _____ (Telephone #)

6 _____ (Special Physical/Medical Requirements)

7 _____ (Assigned Housing) 8 _____ (Assigned Feeding)

9 _____ (Volunteer Home-Name & Address)

10 _____ NOTIFY IN EMERGENCY (Address) _____ (Telephone #)

Date In

REGISTRATION FORM FOR EVACUEES
NOT HOUSED IN CONGREGATE CARE HOUSING
(HOUSED WITH FRIENDS/RELATIVES/MOTELS/ETC.)

Date Out

1 _____ (Name-Head of Household) _____ (Age) _____ (Sex)

2 _____ (Spouse) _____ (Age) _____ (Sex)

3 _____ (Family Member) _____ (Age) _____ (Sex)

4 _____ (Family Member) (Continue On Back If Needed) _____ (Age) _____ (Sex)

5 _____ (Home Address) _____ (Telephone #)

6 _____ (Special Physical/Medical Requirements)

7 _____ (Assigned Feeding-If Applicable)

8 _____ (Name of Friend/Relative/Hotel) (Address) _____ (Telephone #)

9 _____ NOTIFY IN EMERGENCY (Address) _____ (Telephone #)

Annex H

Hostile Action Based

RESPONSE TO

COOPER NUCLEAR STATION

HOSTILE ACTION BASED (HAB) EVENTS

A hostile action based (HAB) event (as defined in NRC Bulletin 2005-02, Emergency Preparedness and Response Actions for Security-Based Events) is an act toward a nuclear power plant or its personnel that includes the use of violence and force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force

I. PURPOSE

A. This annex is intended for city, county and state radiological emergency planners and responders working with Cooper Nuclear Station (CNS) in Nebraska. This document defines roles, responsibilities, and actions needed for Hostile Action Based (HAB) incident response in Nebraska that are in addition to the Radiological Emergency Response Plan (RERP).

B. The hostile action response planning accommodates three major events happening simultaneously:

1. A Hostile Action Based event occurring at CNS.

2. A radiological emergency situation at CNS.

3. Increased state and national threat level and the precautionary measures that may need to be implemented at other locations.

C. This annex addresses various types of HAB incidents that could occur at a nuclear generating plant including:

1. Land based hostile force attack on CNS.

2. Water based hostile force attack on CNS.

3. Aircraft based hostile attack on CNS.

4. Insider based attack.

5. Combination of insider and external attack on CNS.

II. SITUATION

A. CNS is subject to a terrorist attack from the air, ground, water, and/or internal sources.

B. Local emergency resources provide emergency response services on a day-to-day basis. The Response Matrix, a controlled document held by the Nemaha County Sheriff, identifies local, state and federal support organizations related to a HAB event including but not limited to:

1. Law enforcement agencies,

2. Fire departments,

3. Rescue squads and,

4. Nemaha County Hospital, Auburn, NE.

5. State Agencies

6. Federal Agencies

III. ASSUMPTIONS AND PLANNING FACTORS

A. Assumptions

1. Incident Command will be established for the incident in accordance with NIMS, ICS and response guidance.

2. This annex assumes that hostile forces may be able to overcome the defensive strategies and infrastructure protections in place at CNS and require off-site agencies to respond to the site and provide assistance. CNS has Memorandums of Agreement (MOA), their Letters of Agreement (LOA), and procedures to allow access to the Station for local and state response agencies. These procedures are NRC Safeguards Information and in CNS Security's possession. See Attachment 1 for a list of LOAs.

3. A HAB incident may rapidly escalate through the Emergency Classification Levels (ECL) and by the time the initial notification is made, the site may be at a higher classification level. The initial call for assistance from CNS may come from plant security to 911 before the regulatory notification is made.
   a. The Nemaha County Sheriff and CNS have a process for verification of any notification or message transmitted over a non-secure system.

   b. Subsequent notifications will be through the CNS direct line. Once the Nemaha County EOC is manned and the State conference line is activated, notifications are also passed to the County EOC over the conference line and from the County EOC to the Incident Command Post (ICP). See Attachment 2 Lines of Communications Diagrams.

4. Vital areas and/or systems may be damaged by the adversaries causing a release of radioactive material.

5. The CNS Emergency Operations Facility (EOF) Director may need to coordinate with the Incident Commander (IC), CNS security and operations personnel to move critical nuclear power plant workers on-site to make repairs to vital systems.

6. Coordination between inbound response resources and evacuation efforts will be accomplished by radio, phone or text communication between the IC and CNS Security both prior to the ICP being operational and at the ICP once CNS liaisons arrive.

7. The plant may go into lock down for an extended period of time.

8. There may be no immediate all clear for employee movement on the site.

9. The site may be a crime scene and if so crime scene preservation activities will be implemented.

B. Planning Factors

1. A Hostile Action Based (HAB) event will be treated as a law enforcement event until a determination is made that a radiological release that would exceed permissible Environmental Protection Agency (EPA) guidelines is occurring, likely to occur, or is imminent, regardless of the Emergency Classification Level (ECL). This determination is made by the Governor's Authorized Representative (GAR) based on inputs from all available sources of information.

2. The required emergency response tasks for a Hostile Action Based (HAB) event at a nuclear generating plant have been evaluated and a response matrix developed that shows the response time for available resources. This matrix allows for prioritization of tasks based on the availability of resources. This document holds protected information and is held by the Nemaha County Sheriff. Some responsibilities in the base plan may be re-assigned to accommodate the immediate response that is needed for a HAB incident.

C. Planning Elements for a HAB

1. The foundation for this emergency response planning annex is for events that may exceed the plant security design basis threat. Planning assumes adversaries may penetrate the plant boundaries and cause damage to the infrastructure with partial loss of control for critical plant systems.

2. The event will be treated as a law enforcement event until there are indications of a radiological release or a determination is made that a radiological release is likely, regardless of ECL.

3. The initial response may be a law enforcement response to a hostile action and not necessarily a radiological emergency.

4. The State and Nemaha County have indicated they do not have sufficient capabilities to independently engage in a "take back" of the facility if control of the nuclear station is lost.

5. The goal of the initial response is to prevent a radiological emergency.

6. All normal Radiological Emergency Preparedness (REP) activities for each Emergency Classification level (ECL) may continue to be implemented as necessary in accordance with the approved base plan unless otherwise noted.

7. County and State EOCs will manage and coordinate the off-site radiological emergency response plan activities.

8. Radiological Protective Action Recommendations (PARs) are made to the State and Risk Counties by CNS. Radiological Protective Action Decisions (PAD) are made by the Governor's Authorized Representative (GAR) based on recommendations from CNS and the Nebraska Department of Health and Human Services (DHHS), Division of Public Health (DPH), Office of Radiological Health and are coordinated with the Incident Commander (IC), Nemaha County, Richardson County and the State of Missouri Governor's Authorized Representative (GAR).

9. The National Incident Management System (NIMS) will be used and if appropriate, Unified Command implemented at the Incident Command Post (ICP).

10. Incident Command Post (ICP) will be established and be responsible for coordinating/managing the HAB specific emergency response activities.

11. The Nemaha County Sheriff Department will be the lead law enforcement agency for all HAB Classification Levels until/unless the Federal Bureau of Investigation (FBI) assumes overall command.

12. The Nemaha Rural Fire Department will be the lead fire and EMS agency for all emergencies.

13. Resource tracking will be a coordinated effort between the Nemaha County Emergency Operations Center (EOC) and other response sites including but not limited to the ICP and staging areas.

14. If the incident is determined to be a Terrorist Incident the FBI may take the lead for the criminal investigation.

15. CNS security is to protect the vital areas of the plant~~,~~ and maintain defensive positions of the protected area. CNS will rely on Federal, State and Local Law Enforcement for law enforcement type actions, and to assist CNS with recovery of the site if necessary.

16. Crime scene preservation activities may be implemented at the site.

17. A local PIO may be assigned to the EOC location to facilitate a timely exchange of information with other PIOs. All HAB incident specific public information will be coordinated/ communicated between and among the Incident Commander Post PIO, SEOC PIO, and Local PIO. The PIO with information to relay will initiate coordination and communication with other PIOs as appropriate via phones, radios, and or other forms of electronic transmission.

18. Just in time training will be provided to non-traditional responders to the event.

    a. The training will be provided by Nemaha County Emergency Management Agency at locations that will be determined by the incident circumstances.

    b. All traditional responders currently receive annual radiological training.

D. Emergency Classification Levels

1. In a hostile action event the ECLs are based on the area of the plant site being impacted by advisories. The emergency response actions are based on the ECL for hostile action incidents.

2. Per the NRC Approved CNS Emergency Action Level Methodology, a Notification of Unusual Event EAL is declared when a security condition does NOT involve a hostile action or when there is a credible site-specific security threat or there is a validated notification from the NRC providing information on an aircraft threat.

3. Alert is defined as Hostile Action within the Owner Controlled Area (see Attachment 3, Generic Site Map) or a validated airborne attack threat within 30 minutes of the Plant.

4. Site Area Emergency (SAE) is defined as Hostile Actin within the Owner Protected Area (see Attachment 3, Generic Site Map).

5. General Emergency (GE) is defined as Hostile Action inside the plant's Vital Areas (see Attachment 3, Generic Site Map), such that plant personnel are unable to operate equipment required to maintain plant safety functions.

E. Travel Restriction

1. A travel restriction is a law enforcement action which may be implemented in the immediate area surrounding a nuclear power station in the event of a hostile action based (HAB) event. The purpose of the travel restriction is to protect the public health and safety from the threat of criminal acts or violence while ensuring a rapid response by law enforcement and other first responders is not hindered.

2. Travel restrictions are imposed by the local Incident Commander (IC) and do not generally require the activation of the prompt Alert and Notification System (ANS) to advise local area residents. The boundaries of a travel restriction can be pre-determined or may be determined by the incident commander during an event. The boundaries may also be adjusted as necessary as the event unfolds.

F. Protective Action Decision-Making

1. A special process has been implemented for hostile action based (HAB) events at CNS wherein the Governor's Authorized Representative (GAR) makes a determination as to the likelihood of a radiological release on an ongoing basis. As long as a likelihood of radiological release does not exist, the GAR will not make any Protective Action Decisions (PADs) and the IC's near site travel restriction will continue in force until the situation has stabilized. If a probability of a radiological release is determined to be present, appropriate PADs will be made in coordination with the IC and local officials in accordance with State and local plans.

2. PADs for a response to a radiological hazard will continue to be made by the GAR) in coordination with IC and local officials until the situation has stabilized and the radiological release has been terminated. See Attachments 4, "Off-Site Decision-Making Process" and Attachment 5, "Off-site HAB vs. REP Decision Table".

IV. RESPONSIBILITIES specific to a HAB event

A. State of Nebraska

1. Nebraska State Patrol (NSP):

a. NSP will respond to requests for assistance from the local law enforcement agencies, including but not limited to, the deployment of troopers, Special Response Team(s) (i.e. SWAT and Bomb), and specialized vehicles.

b. Representatives will deploy to the ICP if requested by the Incident Commander.

c. The State of Nebraska Fusion Center, the Nebraska Information Analysis Center (NIAC), may be requested to provide support situational awareness and analysis of possible trends.

2. Nebraska Emergency Management Agency (NEMA):

a. If initial reports indicate a Hostile Action event is occurring, NEMA will advise the Governor's Office and other appropriate State Agencies of the situation. See Attachment 2 for the Primary Lines of Communications Diagrams.

b. The Assistant Director may determine to open the State Emergency Operations Center (SEOC) and deploy a forward contingency of NEMA staff to Nemaha County prior to an ALERT Emergency Classification Level (ECL) being declared.

c. The Assistant Director may determine to open the conference line for activated sites to ensure communication between all responders. See Attachment 2 for the Primary Lines of Communications Diagrams.

d. Make the following additional notifications specific to a HAB event:

1) The Nebraska Protective Security Advisor (PSA) for situational awareness of other critical infrastructure.

2) Fort Calhoun Nuclear Station (FCNS), and all Risk and Host counties for both Nuclear Power Stations.

e. Open or participate in a Joint Information Center (JIC) as defined in the Basic Plan.

B. Nemaha County

1. Nemaha County Emergency Management will respond to requests for support from the Incident Commander (IC).

a. Will, as necessary establish one or more staging areas at the direction of the IC.

b. The Staging Area serves as a designated location where resources can be placed awaiting tactical assignment by the Incident Command Post (ICP) and release of Radiological Monitoring Teams.

2. Nemaha County Sheriff Office:

a. If the situation requires, notify NSP and the FBI

b. May respond to a CNS incident based on information received by CNS security.

c. May determine the location for the Incident Command Post (ICP)

d. Incident Command Post (ICP).

1) An ICP may be established for a hostile action based (HAB) event at CNS.

2) Initial security may be established and staffed at ~~pre~~determined locations by off-site law enforcement based on the event

circumstances. The security may be adjusted as necessary at the direction and discretion of the ICP.

3) The ICP is responsible for coordinating the tactical-level response to a HAB event at CNS.

4) The ICP is responsible for the coordination and communication with CNS and with State Radiological Monitoring Teams for sampling near CNS through the Governor's Authorized Representative (GAR).

5) The Incident Commander (IC) will coordinate response activities at or near the site including:

   a) The control and management of water and land-based access to the site, and

   b) The establishment and maintenance of communications with CNS security staff onsite and state and county EOCs.

6) The Lead IC may be located in the ICP.

7) The Lead IC may be the Nemaha County Sheriff or his/her designee. The Lead IC is responsible for the overall response to the hostile action based (HAB) event requiring the coordination of off-site responders and resources to the site.

8) The Lead IC or designated representative may approve the release of information out of the ICP.

C. Cooper Nuclear Station (CNS) is responsible for:

1. Actions taken on CNS property.

2. Providing ECL information and PARS.

3. Providing dosimetry for responders to CNS

D. Federal Bureau of Investigation (FBI):

1. Assist in the criminal investigation and, if the incident is determined to be a Terrorist act, become the primary investigative agency.

2. Coordination with local, State and Federal agencies.

V. COMMUNICATIONS specific to a HAB

A. The following are, but not limited to, potential points of contact for distribution of threat information:

1. NSP

2. CNS Security 24x7 contact,

3. Nemaha County Sheriff and Emergency Management

4. Richardson County Sheriff and Emergency Management

5. NEMA, via Duty Officer if off hours,

6. Omaha FBI Office,

7. State of Missouri and,

8. Atchison County, Missouri.

B. Significant or credible threat information may be shared between Nemaha County Sheriff, Nemaha County Emergency Management, State of Nebraska, Cooper Nuclear Station, State of Missouri, Atchison County MO, and federal agencies like the Nuclear Regulatory Commission (NRC) and the Federal Bureau of Investigation (FBI).

C. Communication of threat information and coordination between the Nemaha County EOC and the Incident Command Post (ICP), and agencies listed in paragraph B. (on the previous page) may be by, but is not limited to:

1. Radio.

2. Phone.

3. Other means of communication.

VI. CONCEPT OF OPERATIONS

A. General

For a HAB incident, a law enforcement response element may be required and an ICP may be established to coordinate and manage the activities at a location determined by the Incident Commander (IC).

B. Notifications

1. As appropriate, CNS may pass suspicious activity information to the Nemaha and Atchison County Sheriff's Department to investigate. The Nemaha and Atchison County Sheriff's Departments may then pass information up to the States of Nebraska and Missouri. See Attachment 2 for the Primary Lines of Communications Diagrams.

2. Initial notification may come from CNS security, CNS control room, citizen observations either in Nebraska or Missouri, local law enforcement in either Nemaha, Richardson or Atchison counties, 911/dispatch centers from Nebraska or Missouri or the NRC.

3. Initial local response will be based on the content of the notification and may not automatically initiate a REP response until the threat of a release is realistic or there is an actual release. A full REP response may not be initiated at the NOUE, Alert, SAE or General Emergency until it can be verified by law enforcement and/or CNS that the area is secure and follow-on response units will not encounter terrorist's or inhibit law enforcement, fire, or medial units responding to the HAB event.

C. HAB specific media releases will be coordinated and approved by the Incident Commander (IC) or designated representative prior to release to ensure that sensitive information is not released.

D. Initial Response

1. State and local hostile action response goals include but are not limited to life safety, incident stabilization, and property and environmental preservation.

2. Initial law enforcement tactical operational priorities are:

   a. Life Safety

      1. Responders

      2. Victims

      3. Public

   b. Incident stabilization

   c. Property preservation

E. Emergency Classification Level (ECL) "NOTICE OF UNUSUAL EVENT" (NOUE) actions/activities

1. Response actions at a hostile action based (HAB) NOUE ECL are based on:

   a. When a security condition does NOT involve a hostile action, or

   b. When there is a credible site-specific security threat, or

   c. There is a validated notification from the NRC providing information of an aircraft threat.

2. CNS provides notification to the States and Risk Counties in Nebraska and Missouri using normal methods for a NOUE ECL.

3. CNS, States and Risk Counties increase state of readiness.

F. "ALERT" ECL actions/activities

1. Response actions at a HAB Alert ECL are based on:

   a. A hostile action is occurring or has occurred within the owner controlled area (see Attachment 3, Generic Site Map), or
   b. A validated notification from NRC of an airliner attack threat within 30 minutes of the site. The airliner attack threat would not prompt an immediate response to the site by local responders

2. Cooper Nuclear Station (CNS):

   CNS provides notification to the States and Risk Counties in Nebraska and Missouri using normal methods for an Alert ECL.

3. Nemaha County:

   a. An Incident Command Post (ICP) may be established as directed by the Incident Commander.

   b. The Nemaha County Sheriff may be responsible for designating the appropriate Incident Command Post (ICP) location and advising other agencies of the location.

   c. If appropriate for the incident, a Unified Command may be established and may include county, state, Federal and CNS expertise.

   d. Initial representatives who may deploy to the Incident Command Post (ICP) include but are not limited to:

      1) Nemaha County Sheriff Department

      2) Nemaha County Emergency Operations Center

      3) PIO for the Incident Command Post (ICP) who, if activated, will coordinate the approval and release of all hostile action based (HAB) incident specific information through the PIO in the SEOC or the JIC once activated.

      4) NSP

      5) CNS liaisons with Security, Operations and Radiation Protection knowledge.

6) FBI

e. Initial representatives, equipment or vehicles that may be deployed to tactical operations or staging area(s):

1) Nemaha County Sheriff

2) NSP troopers, SWAT, and Bomb team

3) FBI SWAT and Special Agent Bomb Team (SABT)

4) Fire and EMS resources and Mutual Aid departments as requested.

f. The Incident Command Post (ICP) maintains communications with CNS liaisons that are knowledgeable in Plant Security, Plant Operations, and Plant Radiation Protection and the Nemaha County EOC, the Staging Area and the Governor's Authorized Representative (GAR) upon arrival at the EOF.

g. The ICP focuses on the response activities such as setting up a perimeter, establishing site access control, and coordinating on-site law enforcement, fire, and EMS response.

h. Communication will be established between the Incident Commander (IC) and CNS as soon as possible using:

1) Radio,

2) Telephone,

3) Other means as appropriate and necessary.

i. The Response Matrix (see paragraph III.B on page L-3) includes telephone numbers and radio frequencies, and is a protected document held by the Nemaha County Sheriff's Office.

j. The Nemaha County Sheriff's Office may request assistance from other agencies as needed. Activation of non-traditional personnel will be accomplished through day-to-day dispatch procedures. Nemaha County has an MOU with the Southeast Region to provide assistance. This Region includes Cass, Fillmore, Gage, Jefferson, Johnson, Lancaster, Otoe, Pawnee, Richardson, Saline, Seward and York counties.

k. The Nemaha County EOC will deploy direct-reading and thermoluminescent (TLSs) dosimetry along with potassium iodine (KI) to those responding Emergency Workers whose agencies do not already have these items on hand.

4. The State:

a. Ensure that all state activities have been implemented for HAB Alert ECL.

b. NSP will respond to requests for assistance from local law enforcement agencies including the deployment of troopers, Special Response Teams and specialized vehicles including Mobile Command Posts.

c. SEOC may be activated by the Governor's Authorized Representative (GAR) based on information emanating from the field or at the direction of the Adjutant General, or Governor.

d. The SEOC, if requested by county authorities, may activate and deploy state assets including the Nebraska National Guard.

e. Local, State and federal response agencies may be requested to respond to CNS to assist in sweeping/entering the plant for anyone or anything that may pose a threat to the plant.

G. Site Area Emergency (SAE) ECL actions/activities

Response actions at a hostile action based (HAB) event SAE ECL may occur due to hostile action occurring or that has occurred within the protected area of the nuclear power station (see Attachment 3, Generic Site Map).

1. Cooper Nuclear Station (CNS):

a. Provides notification to the off-site agencies.

b. If not already in place, CNS provides liaisons having security, operations and radiation protection knowledge to the Incident Command.

3. Nemaha County:

a. The Sheriff or designated representative may assume the role of Incident Commander (IC) in accordance with local HAB Standard Operating Guides (SOGs), Standard Operating Procedures (SOP) and plans.

b. Contingent on the HAB situation, sirens may not be sounded. The Sheriff may decide not to have the sirens sounded unless the HAB event includes a protective action decision (PAD) which includes the 10-mile emergency planning zone (EPZ) and is associated with a radiological event. (See Attachment 6, Siren Usage HAB vs. REP)

c. The Sheriff may have Dispatch contact the National Weather Service (NWS) and request the broadcast of the "Initial NWS EAS Message".

d. The Sheriff may have the Incident Command Post (ICP) Public Information Officer (PIO) or the Nebraska SEOC release the "HAB Follow-Up" news release to local news media outs.

e. The Sheriff may determine tactical operational priorities depending on the incident.

f. The Nemaha and Richardson County Sherriff's Offices in conjunction with the Nemaha and Richardson EOCs may implement and identify staff for Traffic and Access Control Points (TACP) in their respective counties, to restrict traffic entering the area on local roads as identified in the REP Plans and maps.

g. If deemed necessary and requested by CNS, the Incident Commander (IC) or the IC's designated representative will direct law enforcement personnel assigned TACP duties to allow plant employees with proper identification to pass the TACPs.

4. The State:

a. Ensure all activities have been implemented for hostile action based (HAB) Alert ECL.

b. At the request and direction of Nemaha or Richardson County EOCs, NSP may assist in staffing of TACPs.

c. Distribute news releases at the JIC when activated, and if HAB incident specific, to local news media outlets once approved by the Incident Commander (IC) or the IC's designated representative.

H. General Emergency (GE) ECL activities/actions

This declaration does not mean that there is an immediate release of radioactive material on the site. It may mean that Hostile Action is occurring or has occurred inside the plant vital areas (see Attachment 3, Generic Site Map), such that plant personnel are unable to operate equipment required to maintain plant safety functions.

1. Cooper Nuclear Station (CNS):

a. Provides notification to the off-site local, state and Federal agencies.

b. If necessary direct federal assistance may be requested to engage in the take back of CNS.

c. If not already accomplished, CNS provides liaisons having security, operations and radiation protection knowledge to the Incident Command Post.

2. Nemaha County:

a. Ensure that all activities have been implemented for HAB Alert and Site Area Emergency ECLs.

b. Contingent on the HAB situation, sirens may not be sounded. The Sheriff may decide not to have the sirens sounded unless the HAB event includes a protective action decision (PAD) which includes the 10-mile emergency planning zone (EPZ) and is associated with a radiological event. (See Attachment 6, Siren Usage HAB vs. REP)

c. The Nemaha County Sheriff may request but is not limited to the following tactical teams/resources as needed:

1) Nebraska State Patrol SWAT and/or Bomb teams.

2) NSP Mobile Command Vehicle.

3) FBI SWAT and Special Agent Bomb Team (SBAT)

d. The Nemaha County EOC will communicate Radiological PARs to the Incident Commander (IC).

e. If a radiological release occurs as a result of the hostile action, the IC may determine a need for the pull-back of assets to a safe location based on the recommendation of CNS and on the recommendation of and in coordination with the Governor's Authorized Representative (GAR) and the Nebraska Department of Health and Human Services (DHHS).

f. If not already accomplished and if required by the situation, radiological exposure control will be implemented at a General Emergency. The current turn back and emergency worker exposure worker limits will be maintained.

g. The Incident Commander (IC) may relocate the Incident Command Post (ICP) if necessary for responder health, based on a combination of information obtained from field team analysis, plant monitoring, and any other viable information that becomes available, including recommendations received from the GAR and DHHS.

3. The State:

a. Ensure that all activities have been implemented for HAB Alert and Site Area Emergency ECLs.

b. EAS message requests and confirmation from the NWS are the responsibility of the State.

c. The State is the lead agency for making protective action decisions (PADs) associated with a radiological release during a hostile action based (HAB) event to protect the health and welfare of the public.

d. PARS will be communicated to Nebraska Risk County EOCs using the CNS Direct line and, upon activation, a conference line that includes the ICP, the Risk Counties, the JIC, the EOF and the SEOC. Once a Protective Action Decision (PAD) is made, the Governor's Authorized Representative (GAR) has the responsibility to communicate PADs to the IC at the ICP.

e. The Governor's Authorized Representative (GAR) may coordinate directly with the Incident Commander IC or through the Nemaha County EOC on Protective Action Decisions (PADs) and to allow field teams to move closer to the Plant, when it is safe to do so in order to obtain radiological readings and conduct a more accurate dose assessment to determine better PADs.

f. A recommendation to relocate the ICP due to possible exposure to radiological materials will be made by the GAR on recommendations from the Nebraska Department of Health and Human Services (DHHS), Office of Radiological Health, based on information obtained by a combination of field team analysis, plant monitoring, and plume projections available. If the monitoring teams are unable to conduct monitoring operations within a projected plume area, the Governor's Authorized Representative (GAR) will make Protective Action Decisions (PADs) based on the best information available. This information includes but is not limited to: plant conditions, plant recommendations, and in close consultation and coordination with DHHS and the Incident Commander (IC).

g. Once law enforcement ensures the area is safe, State officials coordinating with CNS radiological staff at the EOF may calculate stay times for responders and communicate that information to the ICP, through the County EOCs.

g. Depending on actual conditions, the State of Nebraska may begin the process of requesting the appropriate level of Federal support under the Stafford Act. This may include Direct Federal Support, an Emergency Declaration, or a Major Disaster declaration.

VII. TRAINING AND EXERCISE Specific to HAB

A. Training:

1. Tactical training for Certified Law Enforcement Officers is on-going.

2. EOC Operations, NIMS and Incident Command courses are offered by NEMA and local Emergency Management agencies several times a year or upon request by any Nemaha or Richardson county first responder agency. Annual REP ORO (Off-site Response Organization) training will be

conducted in accordance with the FEMA approved NEMA Training Directive 9106.

B. Exercise:

1. Exercise scenarios will rotate between air, land and water attack

2. This HAB annex will be evaluated by Federal authorities during an exercise every 8 years.

COOPER NUCLEAR STATION

LETTERS OF AGREEMENT

IN SUPPORT OF A HOSTILE ACTION BASED (HAB) EVENT

Letters of Agreement (LOA) supporting the CNS Emergency Plan are certified annually. This is revised with each revisions of the Emergency Plan. Copies of the current LOAs are maintained in the Emergency Preparedness office

#	Agreement	Date
1	Nemaha County Hospital	05/17/2011
2	Auburn Rescue Squad	12/06/2004
3	Nebraska State Patrol	01/12/2013
4	Nebraska Emergency Management	12/14/2004
5	Nebraska Department of Health and Human Services	12/13/2004
10	Nemaha County Board of Commissioners	01/01/1996
11	Richardson County board of Commissioners	01/01/1996
14	Omaha Public Power District/Fort Calhoun Station	04/28/1998
15	Nebraska Emergency Management / Nebraska Game and Parks Commission	04/18/2011
17	Brownville Fire Department	09/01/1995
18	Auburn Fire Department	010/1/2006
19	Nemaha Fire Department	05/01/1995
20	Peru Fire Department	01/01/2006
21	Nebraska City Volunteer Fire Department (NRC Commitment NLS2005104-4	02/25/2008
22	University of Nebraska Medical Center	07/01/2012
24	Pro-Med	05/18/2011
25	Nemaha County Hospital (Use of helicopter pad)(NRC Commitment NLS2012048-03)	10/15/2012
26	Nebraska Emergency Management, Nebraska Department of Health and Human Services, Division of Public Health, NPPD, and OPPD (NRC Commitment NLS2012048-03)	08/30/2012
27	*Nemaha County Sheriff's Department	10/22/2013
28	*Federal Bureau of Investigation (FBI)	10/22/2013
29	*Nebraska State Patrol	01/06/2014

Note: * Safeguard Sensitive- Law Enforcement Services (LES)

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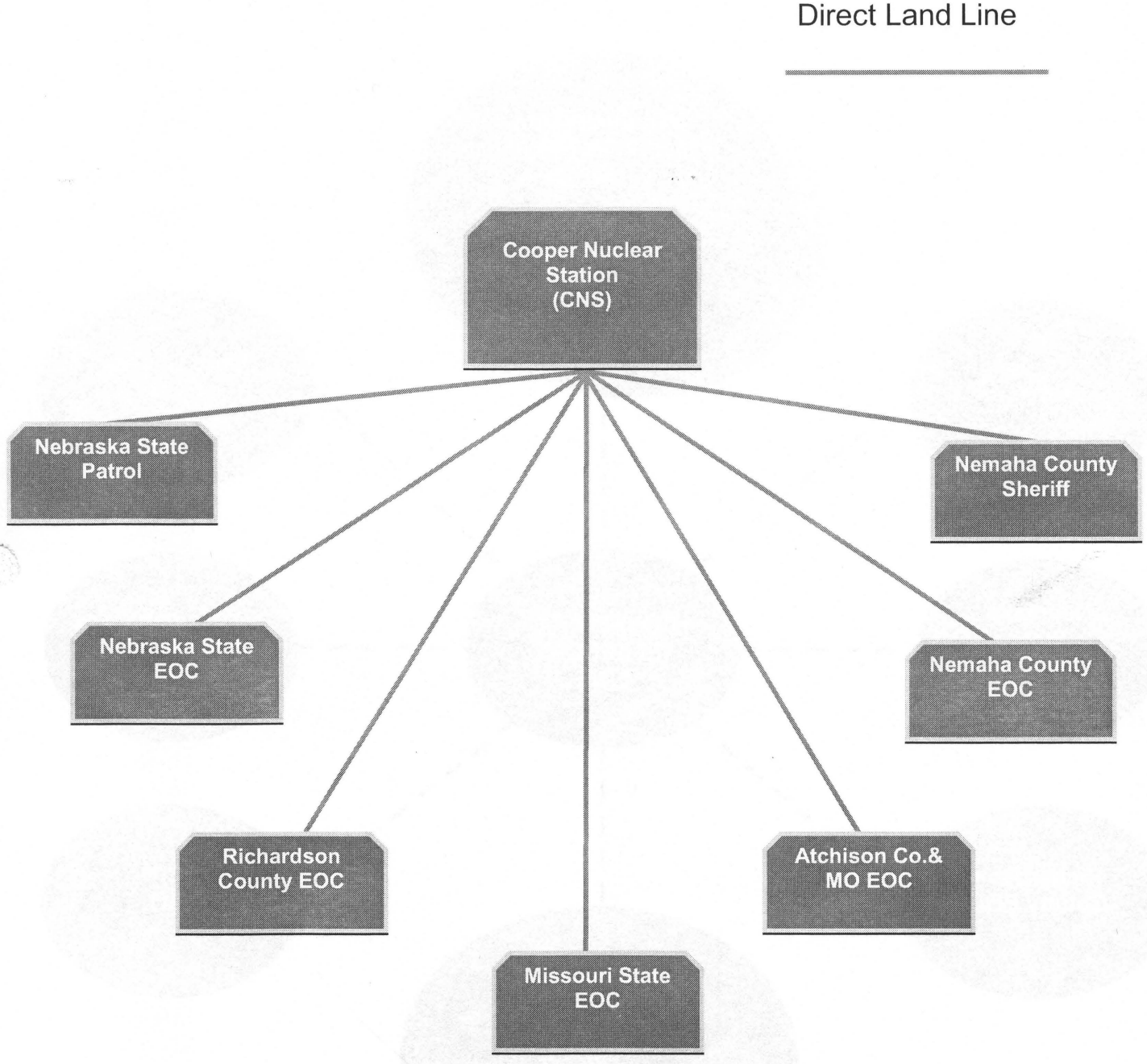
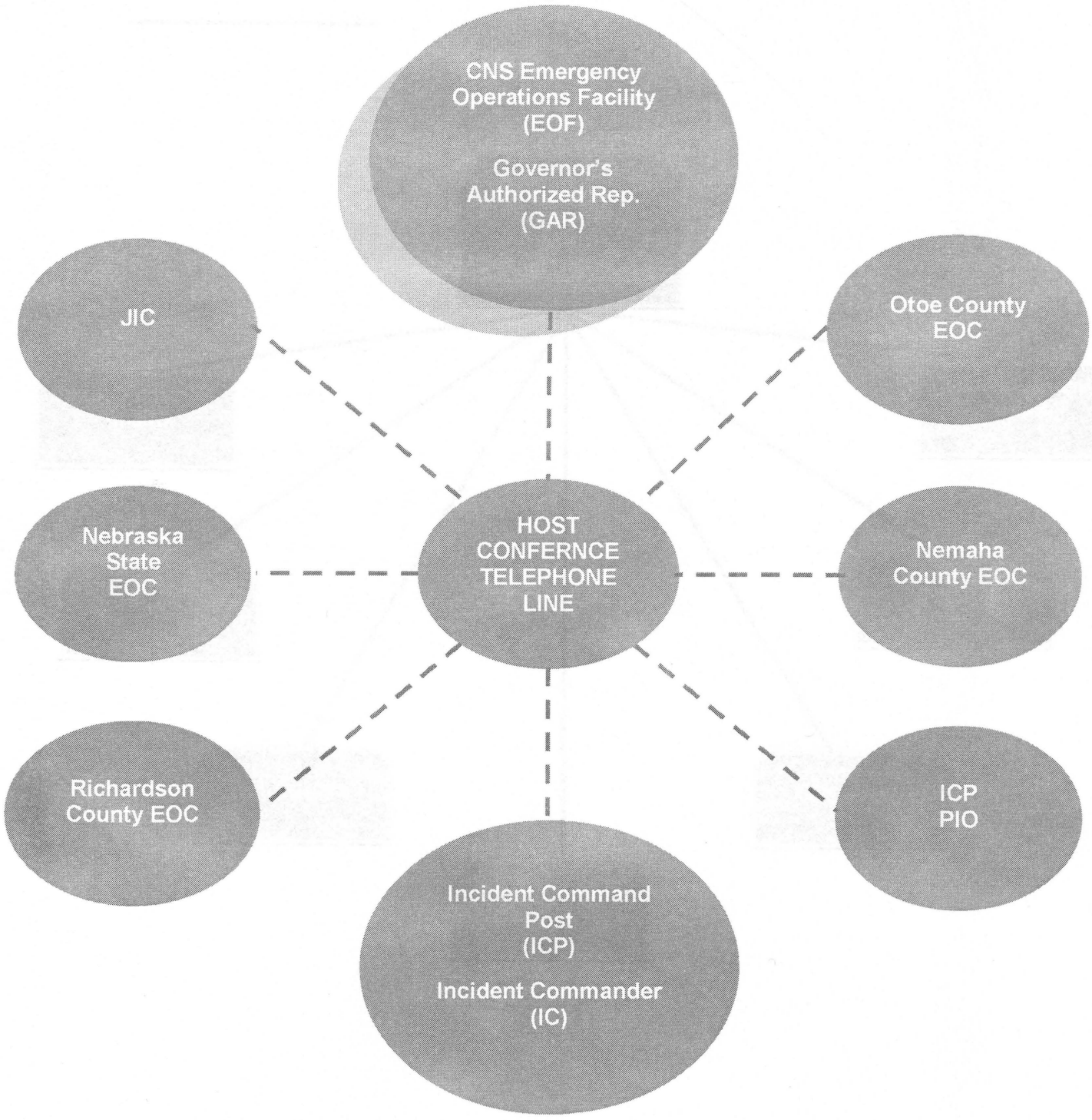
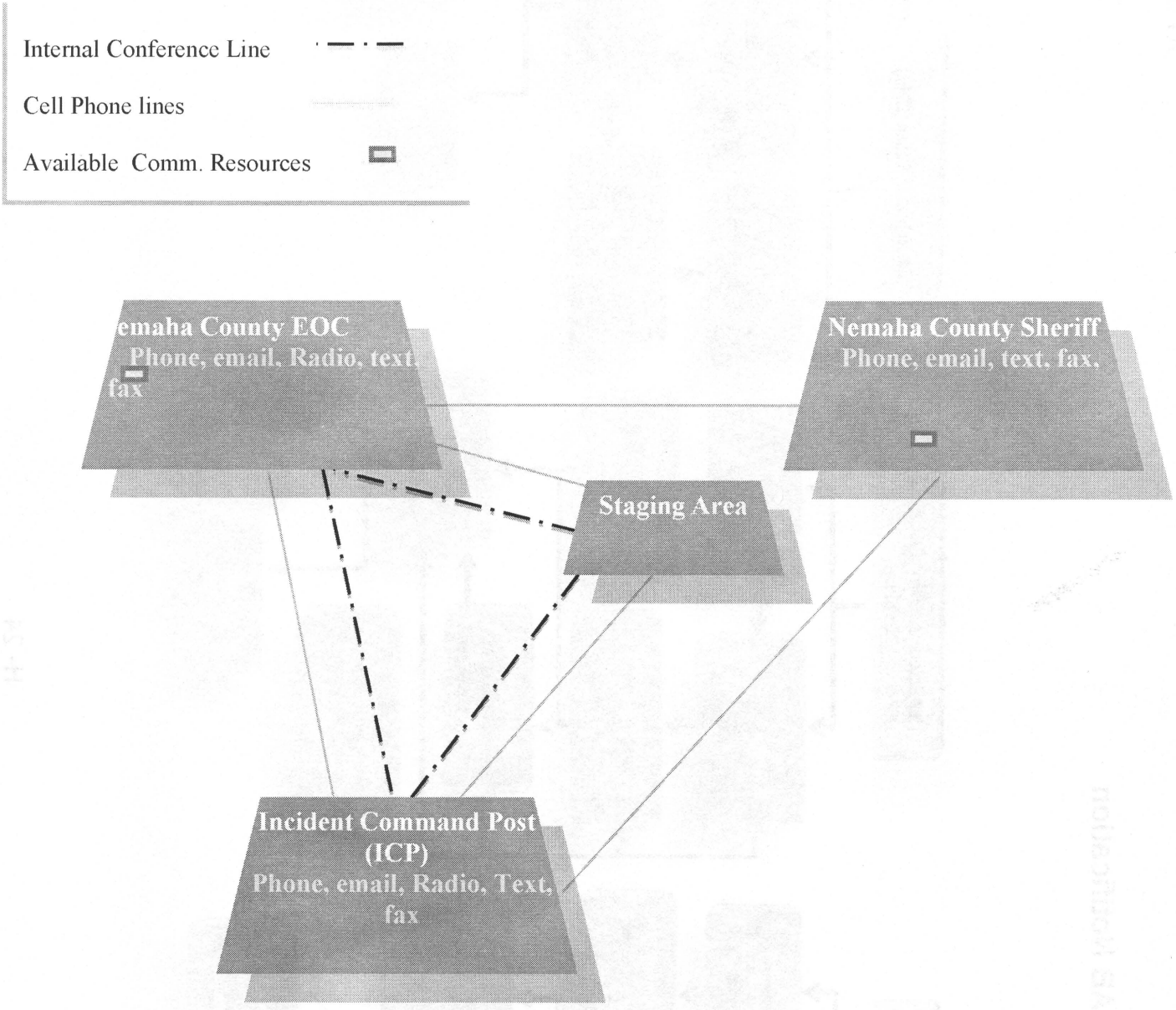
Lines of Communication



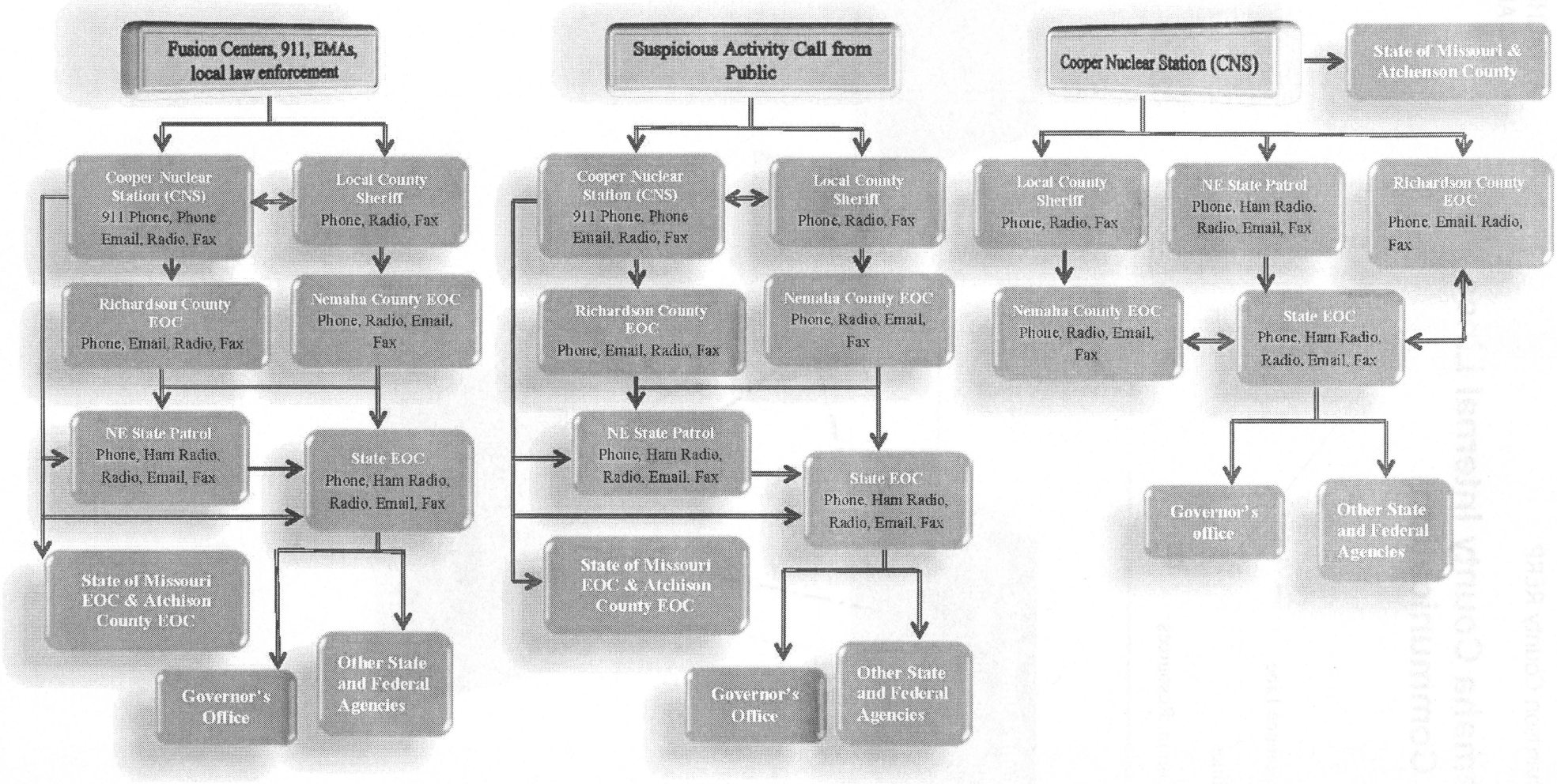
Lines of Communication

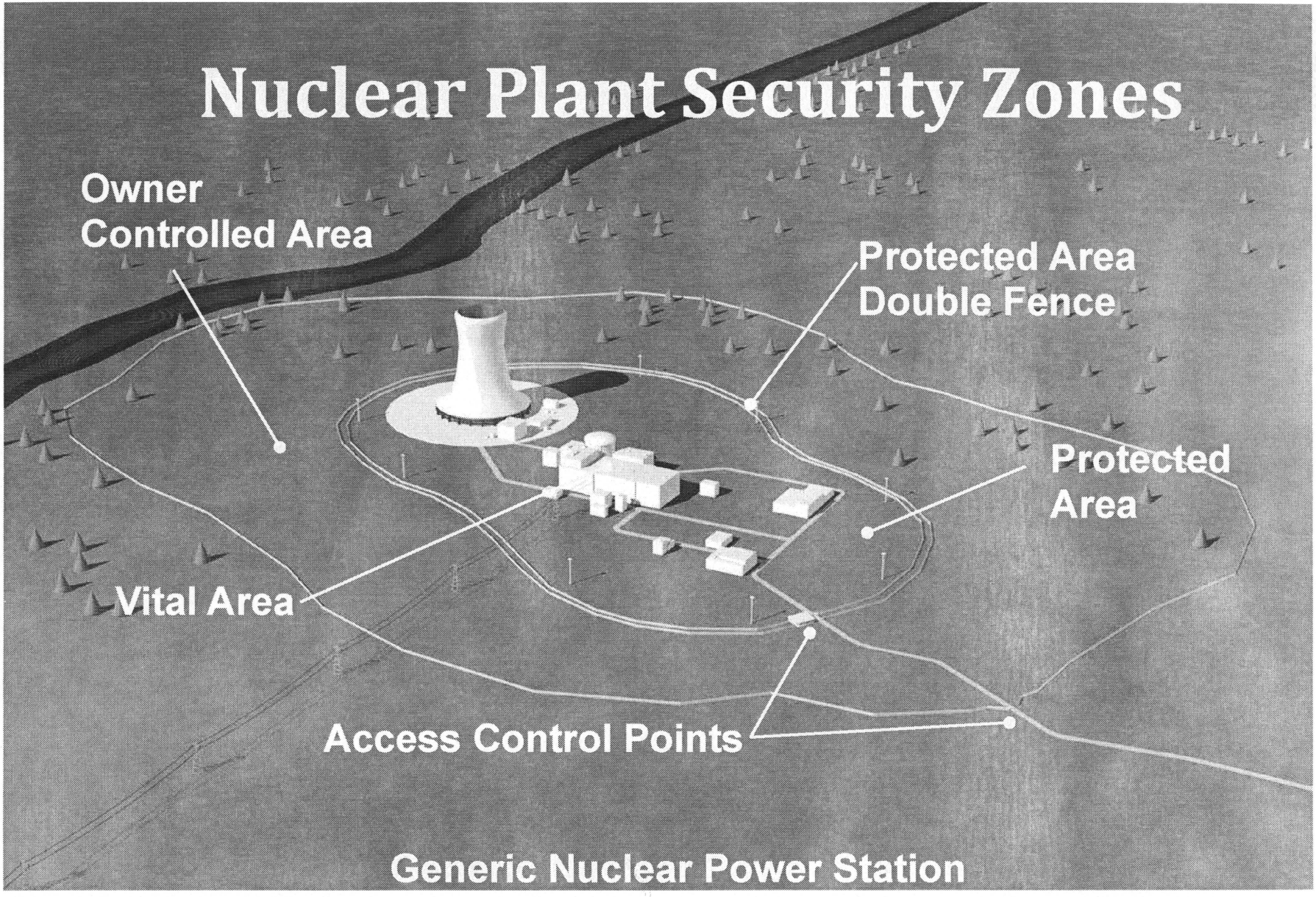


Nemaha County Internal Lines of Communication



Alternate Means of Initial HAB Notification




Nuclear Plant Security Zones
Owner Controlled Area
Protected Area Double Fence
Protected Area
Vital Area
Access Control Points
Generic Nuclear Power Station

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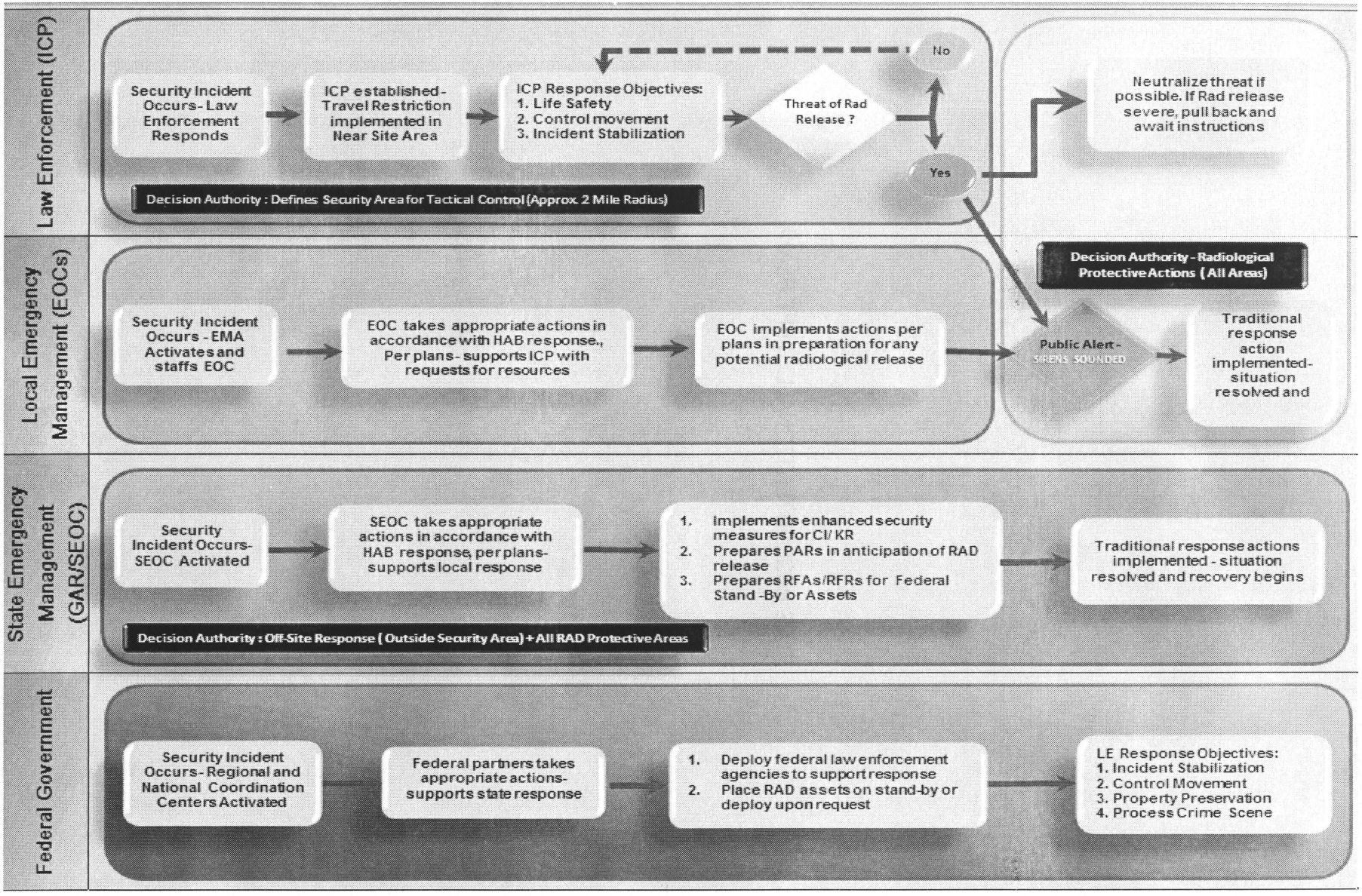
Off Site Decision Making Process – CNS HAB Response



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COOPER NUCLEAR STATION

HAB VS. REP DECISION TABLE

HAB Scenario vs Traditional REP Scenario

Emergency Classification Level	Action Taken	REP Scenario	Security Scenario (HAB)
UNUSUAL EVENT	EMA Monitors	X	X
ALERT	Activation of the EOCs Notification	X	X
	EAS Station (NWS) on Standby	X	X
	Special Facilities placed on Standby (Staging Areas, etc.)		X
	Precautionary Relocation of Special Populations (Schools, etc.)	X	
	Issue Dosimetry as needed		X
SITE AREA EMERGENCY	Federal,State, & County Parks, Recreation areas and Rivers Closed		X
	Activate Sirens, Indoor Warning System, Weather Radios, and EAS	X	*
	"Travel Restrictions" implemented in approx. two-mile area, inlcuiding TACPs & restrict access into the area.	*	X
	Emerg. Wkr. Monitoring & Decon Stations Activated	*	X
	Special Facilities placed on Standby (Recept. & Care; Emerg. Wkr. DeCon, Etc)	X	*
	Issue Dosimetry per Plans and Procedures	X	X
	JIC Staffed	X	*
	Default Precautionary PADS Implemented: Dairy Animals placed on Stored Feed/Water; Close Rivers/ Air Space, Etc.	X	
GENERAL EMERGENCY	Activate Sirens, Indoor Warning System, Weather Radios, and EAS	X	*
	Shelter-in-Place Recommendation for affected subareas		*
	Evacuation Recommendation for affected subareas	X	*
Preferred PARs/ PADs	**Description**	**RAD Scenario**	**Security Scenario (HAB)**
Travel Restrictions	Law Enforcement measures used to protect public health and safety from the threat of Criminal acts or violence		X
Shelter in Place	Used for protection of public health and safety from a radiological threat if the risks associated with an evacuation outweigh the anticipated radiation effects.	X	X
Evacuation	Used for protection of public health and safety from a radiological threat when public can be safely evacuated or during high intensity and/or extended duration releases	X	*

* Situation Dependent

HAB Response PARs/PADs

Hostile Action Based (HAB) incidents present unique challenges because they differ from the traditional Radiological Emergency Preparedness (REP) incidents for which licensees and Offsite Response Organizations (ORO) typically plan, train and exercise. The key difference between the HAB Protective Action Recommendation (PARs) and Protective Action Decision (PADs) strategy and the PRE PARs and PADs strategy is the shift from a robust REP response to low-profile response allowing law enforcement to contain and neutralize a hostile threat.

The low- profile response further ensures that vulnerable secondary "Soft" targets are not exposed to hostile forces, i.e. attacks on Federal, State and local parks and recreational areas, Reception Centers, etc. During HAB events, travel restrictions are imposed by law enforcement in the immediate area surrounding a nuclear power station. The restriction is held until the threat is neutralized.

If the likelihood of a radiological release is determined to be present, the response strategy will shift from a law enforcement- centric response to a radiological response. PARs and PADs will be made and PARS will be implemented, placing the appropriate emphasis on protecting the health and safety of the public from the radiological threat. The policy of the State of Nebraska is to make an evacuation PAD for the public. However during a HAB event, unless conditions require an evacuation based on the characteristics of the radioactive release, a shelter-in-place PAD must be considered to ensure the emergency response is not inhibited by the evacuating public.

COOPER NUCLEAR STATION

Siren Usage Decision Chart

HAB Scenario vs Traditional REP Scenario			
Emergency Classification Level	ACTIONS TAKEN: "SIRENS..."	REP Scenario	Security Scenario (HAB)
UNUSUAL EVENT			
ALERT			
SITE AREA EMERGENCY	**NOT** Sounded Normally.		X
	Sounded When A Protective Action is Made within the 10-mile EPZ		X
	Sounded When Associated with REP Event	X	X
	Sounded Automatically	X	
GENERAL EMERGENCY	**Sounded** When Associated with a Protective Action within the 10-mile EPZ		X
	Sounded Automatically	X	
	Sounded When additional PADs are made	X	

During a Hostile Action (HAB) incident, the decision to sound the sirens must be coordinated between the Incident Command Post, the Washington County EOC, the Harrison County EOC, the National Weather Service (NWS), the Governor's Authorized Representative (AR) and the SEOC. This is to ensure that everyone is aware not only that sirens will be sounding and when, but to ensure everyone is aware of what everyone will be doing, including the fact that the State has the responsibility to distribute any protective action decision (PAD) news releases to the local news media.

Annex I

POST EMERGENCY (INGESTION PATHWAY) PHASE OPERATIONS

NEBRASKA
POST EMERGENCY (INGESTION PATHWAY) PHASE OPERATIONS

I. PURPOSE

The purpose of this Annex is to minimize radiological exposure to the public that could be gained from the food chain and/or water supplies.

II. SITUATION.

1. There is no clear distinction between when emergency phase operations cease and post emergency (ingestion pathway) operations begin. It is more of a transition from one phase to the other.

2. If one must make a distinction, then it could be said that post emergency phase operations being once emergency phase operations have been completed, i.e., evacuation of the public in those areas within the 10-mile Plume Exposure Pathway Emergency Planning Zone (EPZ) and the cessation of release(s) of radioactive materials from the nuclear power station.

III. ASSUMPTIONS AND PLANNING FACTORS

A. That emergency phase operations have ceased or are about to be completed.

B. That while still in the emergency phase, preparations are being made to move into the post emergency or ingestion pathway phase.

IV. ORGANIZATION/RESPONSIBILITIES

Organization and responsibilities for federal, state and local agencies have already been delineated in Paragraphs IV, V, and Attachment 9 of the Basic Plan and Annex B.

V. CONCEPT OF OPERATIONS

A. General

1. Ingestion exposure pathway EPZ protective actions include the Plume EPZ.

2. The protective actions, especially with respect to agriculture, are appropriate when the health benefit associated with the reduction in dose

that can be achieved is considered to offset the undesirable health, economic and social factors.

3. As a result, operations in the Ingestion EPZ are quite likely to be highly technical and could involve complex investigations in agricultural production and in related agribusiness areas. Thus, ingestion EPZ type field activities are best carried out by technically qualified personnel under the direction of appropriate health-physics officials.

4. Where municipal and other water supplies are concerned, considerable engineering expertise could be required.

5. It is possible that federal support under the National Response Framework would be required from such agencies as the U. S. Environmental Protection Agency (EPA), U. S. Department of Health and Human Services (HHS), HHS Food and Drug Administration (FDA), U. S. Department of Energy (DOE), U. S. Nuclear Regulatory Commission (NRC), U. S. Department of Agriculture (USDA), etc.

6. Any location assistance needed would also be of a specialist nature and would probably be coordinated by the USDA State Emergency Board.

B. Risk Assessment

1. Prior to any actions being taken in the post emergency phase, Nebraska Department of Health and Human Services (DHHS), Division of Public Health (DPH), will initiate "Risk Assessment Action" utilizing information provided by the nuclear power station, ground monitoring and sampling teams, and aerial monitoring and sampling surveys.

2. The results of this assessment will determine what, if any, additional protective measures should be implemented.

C. Additional Protective Measures

1. General

The decision to implement the following steps will be made by the Governor or his designated representative based on DHHS, DPH assessment and recommendations. This process is done on a case by case basis, and is consistent with the decision process described in paragraph VI.H of the Basic Plan.

2. Economic Embargo of Raw Agricultural Products

   a. Due to the economic catastrophe that could occur if quick action is not taken due to the public's perception of radioactive contamination, an economic embargo of raw agricultural products for counties that may be affected by a nuclear power station accident is instituted during a GENERAL EMERGENCY.

   b. The area to be embargoed is determined by consultation between DHHS, DPH and the Nebraska Department of Agriculture, which is then recommended to the Governor or his designated representative.

      (1) For the Cooper Nuclear Power Station, counties that may be placed under an economic embargo of raw agricultural products may be, but are not limited to:

      - Cass
      - Gage
      - Johnson
      - Lancaster
      - Nemaha
      - Otoe
      - Pawnee, and
      - Richardson

   c. An economic embargo of raw agricultural products means that no agricultural products, whether in the field, at a processing facility, in storage or on a transportation conveyance may depart the embargoed area until cleared by appropriate authorities. It also means that transportation conveyances that could be used for the transport of agricultural products, whether empty or full, may not enter the embargoed area until cleared by appropriate authorities.

3. Relocation

   a. Relocation is a mandatory movement of people from their homes and farms to a location that does not present a danger from radiological exposure. Relocation is allowed to take place over a period of time, normally two to three days, vice the immediate evacuation, as required during the emergency phase.

b. Relocation refers to a protective action that is taken during the post emergency phase to avoid chronic exposure to gamma radiation from deposited radioactive materials in areas where the projected first year dose exceeds the relocation protective action guide (PAG). People who are to be relocated will be directed to reception centers to be monitored, then to congregate care facilities that they may utilize until they are moved to a permanent or other long-term facility. Relocation will be applied in two circumstances:

(1) Individuals who were evacuated from areas during the emergency phase, which were initially in the plume EPZ and later found to be highly contaminated, will be relocated.

(2) Individuals who were not evacuated or had been sheltered during the emergency phase and who may now be facing a chronic exposure problem will be relocated.

NOTE: The first step for individuals previously sheltered during the emergency phase would be to evacuate these individuals. Once a determination is made that the area has or will receive a high concentration of deposited material, these individuals will be relocated.

4. Re-entry

a. Re-entry refers to the temporary authorized entry of individuals into a restricted zone under controlled conditions.

b. Once the plume phase evacuation and ingestion phase relocation have been implemented, individuals will only be allowed to re-enter the established restricted zone on a need only basis. The "Need-Only" basis will be determined by local authorities in consultation with DHHS, DPH.

c. Access control points will be established around the boundary of the restricted zones to provide for radiation control for individuals who may need to re-enter. The control points should be either at or near the boundary of the restricted zone or at a convenient location outside

the zone and will not necessarily be the same access control points established for the emergency phase of the operation.

d. DHHS, DPH will determine the amount of time, including transit time, that an individual could remain in a restricted zone without exceeding the more limiting annual dose limits listed below:

(1) A total effective dose equivalent equal to 0.05 Sv (5 REM).

(2) The sum of the deep dose equivalent and committed dose equivalent to any individual organ or tissue other than the lens of the eye equal to 0.5 Sv (50 REM).

(3) An eye dose equivalent of 0.15 Sv (15 REM), or

(4) A shallow dose equivalent of 0.5 Sv (50 REM) to the skin or any extremity.

e. Local Governmental Officials will set other restrictions as deemed necessary for personnel desiring to re-enter the restricted zone.

f. Refer to Paragraph VII.A in this Annex for additional information.

5. Return

a. Return refers to reoccupation of areas cleared for unrestricted residence or use by previously evacuated or relocated populations.

b. Individuals will only be allowed to return once areas have been monitored and it has been determined that the area has not been significantly contaminated by the plume.

c. Return in other areas will be allowed once full decontamination procedures have been implemented and contamination levels are below PAGs set forth by DHHS, DPH.

d. Refer to Paragraph VII.B in this Annex for additional information.

6. Recovery

a. Recovery refers to the process of reducing radiation exposure rates and concentrations of radioactive materials in the environment to

acceptable levels for return by the general public for unconditional occupancy or use after the emergency phase of a radiation emergency.

b. Services such as medical, utilities, roads, schools, and intermediate housing will be identified and procedures for restoration initiated prior to return.

D. Initiation of Post Emergency Phase Operations - FRMAC

1. If not done sooner, the point in time when the emergency phase is coming to an end and the release of radioactive materials from the nuclear power station has been terminated, the Governor's Authorized Representative (GAR) will coordinate with the neighboring state's GAR(s) as to where the Federal Radiological Monitoring and Assessment Center (FRMAC) will be located.

2. When no longer needed at the nuclear power station's Emergency Operations Facility (EOF), the GAR and his staff, as well as the DHHS, DPH Emergency Response (ER) Manager, will depart the nuclear power station's EOF for the FRMAC.

3. At the FRMAC, the GAR and the DHHS, DPH will coordinate with other responding state agencies such as the Nebraska Department of Agriculture, Nebraska Game and Parks Commission, Nebraska Department of Roads, Nebraska National Guard, and the Nebraska State Patrol. These agencies will also coordinate with counterparts from the Nuclear Regulatory Commission (NRC) and the U. S. Department of Energy's FRMAC.

E. Post Emergency Recommendations and Decisions

1. Based on the data received through ground monitoring and sampling, as well as aerial monitoring and sampling, state and federal health personnel will make recommendations to the Governor's Authorized Representative (GAR) concerning "Relocation", "Re-entry", "Return" and "Recovery".

2. Other recommendations will include what will be done:

a. With dairy products already collected, being collected, or about to be collected.

b. With crops already harvested, being harvested, or about to be harvested.

c. About water reservoirs, stock ponds, etc.

d. About fishing and other recreational activities in the affected area.

e. About hunting seasons.

f. About issuing warnings concerning migratory birds and animals.

F. Specific Protective Measures For Agriculture and Water

Collection of water, milk, air, particulate, soil, or vegetation samples for analysis at the contract laboratory, or other laboratory designated by DHHS, DPH, will be accomplished, if required.

1. Agricultural Products Contamination

a. Due to the wide areas potentially involved as well as the complexity of ingestion pathway operations, early request for support under the National Response Framework is a possibility. See paragraph VI.H of the Basic Plan and Paragraph V.B in Annex B.

b. Agricultural agencies will have maps and other aids annotated to show land use and related production information for the Plume and Ingestion Emergency Planning Zones. The state office of the USDA Farm Services Agency (FSA) has established program compliance aid that consists of precision aerial photographs of agricultural areas in the state. The master set of photos is updated every eight (8) years and a comparison set is taken each year during July. Each county FSA office

in the EPZ maintains a complete county set of these photos that, after coordination with the USDA State Emergency Board (SEB), could be used to determine specific crop information.

(1) To assist this process, the USDA Statistical Reporting Service (SRS) maintains historic crop, livestock, and dairy production data, as well as current year interpolations. SRS is also a member of the USDA SEB.

(2) The Dairies and Foods Division of the Nebraska Department of Agriculture has county maps posted with locations of dairy producers and processors in the Ingestion EPZ of each nuclear power station. These maps are filed and kept current at the Nebraska Department of Agriculture.

(3) The Bureau of Plant Industry of the Nebraska Department of Agriculture maintains a computer printout which lists all commercial feed distributors in the state which retail over five (5) tons per year. A current copy of this printout is on file at the Nebraska Department of Agriculture that brings it to the State Emergency Operations Center (SEOC) for use during an emergency.

(4) Current listing of licensed grain elevators/warehouses as regulated by the Nebraska Public Service Commission are on file at the Public Service Commission and can be easily obtained by the SEOC.

(5) Federal licensed grain elevators/warehouse lists, as prepared by the Nebraska Office of the USDA Agriculture Marketing Service, Omaha, NE, are also on file at their office and can be easily obtained by the SEOC.

(6) Grain storage information, as prepared annually by the Nebraska Grain and Feed Dealers Association, is maintained at the USDA.

c. Agricultural protective actions will be determined based on the PAGs established in 21 CFR 1090. Implementation of agricultural protective actions to a large degree would be time dependent. Also, the time available to implement protective measures associated with the Ingestion EPZs would be generally greater than the time available to implement protective measures associated with the Plume EPZ.

d. The following agricultural protective actions should be considered for implementation when the projected dose equals or exceeds the Preventive PAG:

(1) <u>Pasture</u>

(a) Remove dairy cows from contaminated pasture.

(b) Substitute uncontaminated stored feed.

(c) Substitute a source of uncontaminated water.

(2) <u>Milk</u>

(a) Withhold contaminated milk from the market until radioactivity decays to safe levels. This may be done by:

(i) Processing and storage at reduced temperatures.

(ii) Diversion to other dairy processing.

(b) Use contaminated milk for animal feed in cases where the ingested radioactivity will not contribute additional radiation exposure to the human population (primarily short-lived radionuclide contamination).

(c) Disposal of milk and milk products in which the radioactivity cannot be reduced to levels acceptable for use and substitution of uncontaminated milk from other areas.

(d) Temporary embargoes to prevent contaminated food from being introduced into commerce.

(3) Fruits and Vegetables

(a) Washing, brushing, scrubbing, peeling, to remove surface contamination.

(b) Preservation by canning, freezing, dehydration or storage to permit radioactive decay to safe levels.

(c) Disposal of fruits and vegetables in which the radioactivity cannot be reduced to levels acceptable for use.

(d) Temporary embargoes to prevent contaminated food from being introduced into commerce.

(4) Grains

(a) Milling and polishing.

(b) Storage to permit radioactive decay of short-lived radionuclides.

(c) Use of contaminated grains as food for animals in cases where ingested radioactivity will not contribute additional radiation exposure to the human population (primarily short-lived radionuclide contamination).

(d) Use of contaminated grains for seed.

(e) Disposal of grains in which the radioactivity cannot be reduced to levels acceptable for use.

(f) Temporary embargoes to prevent contaminated food from being introduced into commerce.

(5) Other Food Products. Processing to remove surface contamination.

(6) Meats and Meat Products. Will be considered on a case-by-case basis for:

(a) Diversion to non-human consumption.

(b) Storage to allow decay of short-lived radionuclides.

(c) Disposal of meats and meat products in which the radioactivity cannot be reduced to levels acceptable for use.

(d) Temporary embargoes to prevent contaminated food from being introduced into commerce.

(7) Animal Feeds

(a) Consider on a case-by-case basis.

(b) Increase feeding of non-contaminated calcium to a maximum.

e. When projected dose equals or exceeds the emergency PAG, responsible officials should isolate food containing radioactivity to prevent its introduction into commerce (embargo). They should also determine whether condemnation or other disposition is appropriate. Before taking this action, responsible officials should consider:

(1) Availability of other possible protective actions as listed above for the preventive PAG agricultural actions.

(2) Relative proportion of the total diet by weight represented by the item in question.

(3) The importance of the particular food in nutrition and the availability of uncontaminated food or substitutes having the same nutritional properties.

(4) The relative contribution of the other foods and other radionuclides to the total projected dose.

(5) The time and effort required to effect corrective action.

2. Surface or Ground Water Contamination. Upon notification of an incident affecting surface or ground water:

a. The Department of Environmental Quality is responsible to alert downstream users and recommend protective actions.

b. DHHS, DPH will be informed and will assist as may be appropriate.

c. The USDA Soil Conservation Service will advise the USDA SEB as to watershed technical matters that might impact on agricultural assessment or protective actions.

d. As local sponsors for watershed improvement projects, the Natural Resources District will also provide technical assistance.

3. Municipal Water Systems Contamination

In the event of radiological contamination of any public works (engineering) facilities such as water supply and/or distribution, etc., the DHHS, DPH, Office of Environmental Health, acting in conjunction with the ER Manager, DHHS, DPH, will be prepared to analyze the situation and to coordinate emergency assistance following the State of Nebraska Safe Drinking Water Emergency Plan of 1998.

VI. SUPPORT UNDER THE NATIONAL RESPONSE FRAMEWORK (NRF)

A. Federal Resources

1. The federal government, under certain circumstances, can provide substantial support for nuclear power stations as well as state and local governments responding to a nuclear power station radiological incident.

2. General resources that could be provided depending on the situation would include the following:

   a. Professional personnel in radiological protection, industrial hygiene, safety, medicine, physical sciences, biological sciences, agricultural sciences, engineering, waste disposal, environmental science and other disciplines.

   b. Technical personnel in photography, radiological monitoring, instrumentation, radioactive materials handling, decontamination, nuclear safety, security, communications, equipment operations, radio-analytical procedures, environmental sampling, transportation, and other technical areas;

   c. Equipment for personnel protection, transportation of people and material, construction, materials handling, communications, radiation monitoring, remote viewing, photography, rescue operations, waste storage and transportation, decontamination, laboratory services, field operations support, and other uses;

   d. Facilities for biological assay analysis, chemical analysis, radio-analysis (including food, water and milk), maintenance, decontamination, radioactive waste disposal, medical services, personnel dosimetry, radiation exposure evaluation, mobile radiological emergency operations support, and other specialized services;

   e. Materials for radiation shielding, decontamination operations, contamination control, and other operations requiring bulk quantities of special material;

   f. Services for support of radiological emergency operations that employ personnel, equipment, facilities and materials for the purpose of performing particular functions such as: equipment maintenance and repair, personnel dosimetry, analytical laboratory work, personnel and equipment decontamination, fire fighting, and security.

3. During a nuclear power station radiological emergency, the SEOC will maintain close contact with federal agencies having responsibilities under

the National Response Framework. See the Basic Plan, Attachment 10 for a federal agency notification listing.

B. The National Response Framework (NRF)

1. The NRF covers any peacetime radiological emergency that could require a significant response by several federal agencies in support of state and local governments.

2. The plan outlines federal policies and planning assumptions as well as the federal government's concept of operations based on specific authorities for responding to radiological emergencies.

3. It also specifies authorities and responsibilities of each federal agency that may have a significant role in the federal effort.

4. The federal government will respond when support is requested by state, local government and/or a regulated entity. Federal agencies must also respond to meet statutory responsibilities.

5. Any federal actions will be closely coordinated with the state and local governments concerned. All requests for federal assistance will be coordinated through the state.

6. The NRF provides for a three-phase operation which includes: Preparedness; Response; and Recovery. See the Basic Plan, paragraph V.G and Attachment 9 for federal functions and responsibilities under the NRF.

C. U.S. Dept. of Energy Responsibilities under the National Response Framework

1. Coordination matters for federal agencies with radiological monitoring and assessment capabilities are contained in the National Response Framework (NRF) which superseded the FRMAP.

2. DOE resources listed in the Radiological Annex of the NRF may be utilized without activating the whole NRF.

3. Supporting DOE offices prepared for operations under the NRF by accomplishing site specific emergency planning at potential incident sites such as nuclear power stations.

4. DOE, because of its responsibilities for off-site radiological monitoring, will probably be the first agency requested to provide federal support.

5. DOE field operations will be conducted following the NRF. Specific state and local resources available to support the federal response will be identified when site-specific support plans are developed and coordinated by the Regional Response Coordinator at the Radiological Assistance Program Office.

6. Nebraska is supported by the DOE Region V Radiological Assistance Program Office, Argonne National Laboratory, Argonne (Chicago), IL.

D. Federal Radiological Monitoring and Assessment Center (FRMAC)

1. In the event of a major radiological emergency, 17 federal agencies with various statutory responsibilities will coordinate their efforts at the emergency scene under the umbrella of the Radiological Annex of the Federal Response Framework.

2. A FRMAC provides an operational framework for coordinating all federal off-site radiological monitoring and assessment activities during a response to a radiological emergency.

3. The FRMAC, when responding, will arrive in phases depending on the needs and requirements of the State and the severity of the incident. The first phase would be the arrival of the Radiological Assistance Program (RAP) team consisting of eight to fifteen members. A second phase would bring in additional RAP teams and technical experts consisting of between 45 and 80 additional personnel. The fully implemented FRMAC will consist of approximately 650 personnel.

4. The FRMAC is requested by the state and its location determined in coordination with neighboring affected states.

5. The FRMAC will be incorporated under the state's National Incident Command System upon its arrival.

E. Responsible Coordinating Agency

1. Depending on the situation, a federal agency might already have a statutory role separate from existing federal emergency procedures.

2. The NRC has certain established legal responsibilities with respect to an on-site NRC licensed, nuclear power station technical situation. The NRC recognizes this type of relationship and, in the case of a nuclear power station incident the NRC would be the Coordinating Agency for technical plant matters.

3. The responsible coordinating agency, along with other federal agencies supporting the coordinating agency, would respond to nuclear power station radiological incidents and operate under the NRF.

F. Federal Emergency Management Agency (FEMA)

1. FEMA's primary responsibilities in the federal response are to immediately notify participating federal agencies of the emergency and to serve as a focal point for promoting the coordination of the federal response activities at the national level and at the scene of the emergency.

2. Normally, the Coordinating Agency and/or DOE will be notified by the nuclear power station and or the state(s).

3. After discussions with the Coordinating Agency, or upon a direct state request for assistance, FEMA will designate and deploy a Senior FEMA Official (SFO). This will provide a single point of contact, as required for state and local assistance requests. Where possible, the SFO will collocate with appropriate state officials at an off-site location.

G. Public Information – Federal

1. The FEMA field effort is designed to accomplish three major responsibilities.

a. The first is to promote coordination among federal agencies and their interactions with the state.

b. Second, FEMA coordinates the federal off-site response with the federal or state on-site response.

c. Third, the FEMA field operation will serve as an information source for the total federal response.

d. See Paragraph VI.M of the Basic Plan and Annex F for related public information details.

2. During operations conducted under the NRF, FEMA will promote coordination among all federal agencies regarding public information generated and FEMA will also promote the coordination of press releases with the state.

   a. The objective is to develop close working relationships among the public information officials of federal agencies, their state and local counterparts and the nuclear power station.

   b. Efforts will be made to co-locate federal, state, local and nuclear power station public information officials at the Joint Information Center (JIC).

   c. The federal government will coordinate with, and obtain concurrence as necessary from the appropriate state or local officials concerning any statements to be made to the public that related to state and/or local responsibilities.

3. Joint Information Center (JIC)

   a. Upon arrival at the affected nuclear power station, federal public information operations will be established at the nuclear power station's JIC.

   b. The JIC will provide the public and the media with adequate, accurate and timely public information that has been coordinated with the nuclear power station, state, and/or local governments.

   c. Each federal agency will be responsible for the preparation and release of public information related to its own response activities.

   d. The Coordinating Agency, in close coordination with the nuclear power station and the state, is responsible for information related to the on-site conditions as well as the off-site radiological effects.

   e. Prior to any release of information, it will be coordinated at the JIC.

VII. ADMINISTRATION AND LOGISTICS

A. Re-Entry

1. Prior to re-entry, a plan should be developed by the locals which allows those citizens with a compelling need to return to their residences for a time of short duration in order to complete some task or retrieve important items (as designated by local authorities).

2. The public, via public information channels, must be informed that re-entry will be allowed, under what conditions and requirements in order to be allowed access to the restricted area and where to register for re-entry.

3. On-going security requirements with access control point(s) at designated critical location(s) will be one consideration taken into account.

4. Another consideration is how those desiring re-entry access are going to prove that they live in the restricted area and have a valid reason for re-entry.

5. Consideration must be given to the facility used for the public to register for re-entry, ensuring that it won't interfere with other emergency operations.

6. The facility should have enough work and supply area all agencies involved and for the public to be educated about the consequences due to the exposure and possible contamination by ionizing radiation or failing to strictly follow instructions provided.

7. Documentation such as Attachment 1 at the end of this annex should be used when authorizing people back into the Restricted Area.

8. Re-entry operations require constant coordination between the various agencies involved (i.e., local, state, law enforcement, etc.).

9. One consideration might be to use dated car "dashboard placards" which are a different style or color each day for allowing access to restricted areas.

B. Return

1. A plan should be developed by the locals which allows evacuees who live in an area evacuated in which no contaminated was subsequently found, to return home.

2. The plan should be flexible and takes into account post- accident conditions, the size of the area evacuated and the total population

evacuated. Above all else should be designed to minimize danger to those returning home.

3. Executing the plan in phases may assist in carrying it out.

4. Phase One of the Return may include a public education program informing the citizens:

   a. When "Return" of evacuee will begin, what they should expect to find upon returning to their individual homes, and what they should do upon their return (open windows to ventilate home, throw out spoiled food, take pictures of any forced entry for possible reimbursement, etc.).

   b. Of a possible time schedule for "Return", maybe certain areas prior to others, instead of all at once.

   c. That a possible strict curfew has been implemented for a period of time until the "Return" has been completed.

   d. That returning evacuees will be required to show some proof of identification to ensure only those who live within the evacuated area are being allowed back into the evacuated area.

   e. That additional monitoring teams may also verify that the designated area for return is actually free of ionizing radiation.

5. Phase Two of the Return may include sending in agencies and groups that participate in restoring normal operations after a disaster. These include law enforcement, fire departments, medical and health care, public works (gas, electric, sewer and water), relief agencies, insurance agents, and businesses such as heating, plumbing and air (to assist with turning on gas, etc.)

6. Phase Three of the Return, while evacuees are returning, may require ensuring additional emergency response personnel, vehicles and equipment are available (e.g., fire and rescue, law enforcement, wrecker trucks, etc.) to respond to any traffic accidents and assist returning evacuees with any other unforeseen problems.

7. Phase Three of the Return may require that pre-existing security around the former restricted area(s) being returned to evacuees, remain in place

for a period of time; to include road-blocks to keep people other than evacuees from entering the area and to keep the rescue routes open.

C. Requesting Federal Support

1. During a nuclear power station emergency, after it has been determined that insufficient technical and/or logistical resources are available, federal support will requested by the Governor or his designated representative.

2. In the development of the request, the SEOC will coordinate with the EOC's of adjacent states concerned in order to ensure that the total requirements of the situation are included.

D. Coordination and Maintaining Responsibility

1. Coordination should also be made with the leadership of the nuclear power station at the emergency operations facility.

2. Once federal support actions have been implemented, state and local governments concerned may still maintain overall management and responsibility for off-site response.

VIII. TRAINING AND EXERCISING

A. Training

1. DOE FRMAC personnel upon request do provide training on the capabilities and limitations of the FRMAC as well as needs should the FRMAC be requested.

2. The NRC on an annual basis also provides outreach training on the capabilities it can provide to the state and local entities.

3. FEMA Region VII holds semi-annual Radiological Assistance Committee Radiological Emergency Preparedness meetings to discuss current issues and subjects related to nuclear power station response preparedness.

B. Exercising

1. States will participate in ingestion exercises at least once every six years.

2. While funding is very limited, if requested far enough in advance, the FRMAC can participate in ingestion exercises with local and state governments.

3. The NRC, also due to limited funding, participates about every three years in at least one exercise, whether it be a plume or ingestion exercise.

4. FEMA is tasked through a Letter of Understanding with the NRC and 44 CFR 350 to ensure that state and local authorities can protect the health and welfare of the public. Thus, they evaluate the state and locals during exercises on a bi-annual basis for each nuclear power station. This means the state is exercised and evaluated on an annual basis (one nuclear power station each year).

5. For further information on exercising see the Basic Plan, Paragraph VIII.C and Planning Standard N in the REP Manual.

RESTRICTED ZONE RE-ENTRY ADMISSION FORM

Serial Number:

1. APPLICANT/LOC

a. Date: | b. Time: | c. Applicant'sTemporary Phone Number:

d. Applicant'sName: | Last | First | MI | e. Social Security No.

f. Applicant's Temporary Address: | Street | City | State | Zip Code

g. Date Requested For Re-Entry: | h. Time Requested In Restricted Zone: | Hrs. | i. Point of Entry Requested

j. Purpose of Re-Entry:

k.Re-Entry Destination(s):

l. Date, Time Length Dose Received During Previous Visits:

m.EMERGENCY INFORMATION: | Name | Relationship | Phone Number | Contact Address

EOC

n. Dosimetry Type(s): CD V- | Serial Number(s): | TLD Serial Number:

o. Point of Entry Authorized:

p. Locally Approved Route:

q. Local Approving Official: | Title: | Signature

2. NE

a. Date Authorized For Re-Entry: | b. Authorized STAY TIME in Restricted Zone: | Hours | Minu

c. Maximum Authorized Exposure Limt This Visit: | mR/Hr. | d.Time Of Approval: | e.Date Of Approval:

f. Statel Approving Official: | Title: | Signature:

3. ACP

a. Access Point Official: | b. Agency:

c. Entry Date: | d. Entry Time: | e. Expected Exit Time: | f. Initials of Applicant:

g. Exit Date: | h. Exit Time: | i. Dosimeter Reading: | mR/Hr.

j. Comments:

4. DS

a. Monitoring Station Official: | b. Agency:

c. Date: | d. Time: | e. Station Location:

f. Final Dosimter Reading/Dose: | mR/Hr.

g. Station Comments:

5. APPLICANT

I understand I am entering a restricted zone and agree to follow the instructions and limitations stated on Page 2 of this Admission Form. I have received instruction on dosimetry and understand that this Admission Form is non-transferable. In accepting this Admission Form, I acknowledge the responsibility for my personal safety.

a. Printed Name (First, MI, Last:

b. Signature Of Applicant:

c. Date Signed By Applicant:

Initials	CONDITIONS FOR RE-ENTRY By YOUR SIGNATURE on Page One and YOUR initials beside each "Restriction" listed below, YOU, as the APPLICANT agree:
	1. To LIMIT the TOTAL TIME in the Restricted Area to the AUTHORIZED TIME indicated on the FIRST PAGE of this ADMISSION FORM.
	2. To proceed to and from the Authorized Re-Entry Destination(s) by the most direct authorized Route Available.
	3. To check the issued self-reading dosimeter(s) every 30 minutes.
	4. To return to the "Re-Entry Point" if the self-reading dosimeter reaches 100 mR/Hr. or the maximum authorized exposure limit listed in Block 2c on the First Page of this Application.
	5. To go through the Emergency Decontamination Station upon exiting the "Restricted Area".
	6. To having received an adequate understanding of the effects and dangers of ionizing radiation.
	7. That regardless of the effects and dangers of ionizing radiation, you, as the applicant have requested entry in the "Restricted Area" for the specific purpose(s) as stated on the First Page of this Application.
	8. That if you, as the Applicant, exceed the "Maximum Authorized STAY TIME in the Restricted Area" (Block 2.b) or exceed the "Maximum Authorized Exposure Limit This Visit" (Block 2.c), it is grounds to DENY further entry into the RESTRICTED ZONE.
	9. To hold harmless, all authorities involved in authorizing entry into the "Restricted Area".
Comments:	
	APPLICANT/LOCAL EOC = By Applicant and Local County Emergency Operations Center NE = By HHS Regulation and Licensure ACP = By Access Control Point DS = By Decontamination Station APPLICANT = By Person Requesting Re-Entry
	Original and 4 copies of Restricted Zone Re-Entry Admission Form for EACH Approved Application. Original Form = Upon approval, MUST accompany Applicant until completion of DeCon., then forwarded by DeCon Station to Local EOC, and given to HSS Regulation Licensure to be retained as record of Dose Received. Copy 1 = Must accompany Applicant until completion of DeCon., then forwarded by Decon to Local EOC to be retained as record of Re-Entry. Copy 2 = Must accompany Applicant to Access Control Point where it is retained as record of people who haveRe-Entered from the Access Control Point. Copy 3 = Must accompany Applicant to DeCon Station where it is retained as record of people who have gone through the the DeCon Station. Copy 4 = Must accompany Applicant and is retained as record of Re-Entry by the Applicant. * The only drawback to this form is that ACP and DeCon will have to complete the Original and all 4 copies by hand.

ABBREVIATIONS AND ACRONYMS

Abbreviations and Acronyms	Meaning
A	
A	Atomic Mass
A	Activity of Isotope
AC	Alternating Current
ACP	Access Control Point
AEC	U. S. Atomic Energy Commission
AGL	Above Ground Level
ALARA	As Low As Reasonably Achievable
ALC	Annual Letter of Certification
AMA	American Medical Association
AMS	Aerial Measuring System (DOE)
AN	Alert and Notification
ANI	American Nuclear Insurers
ANL	Argonne National Laboratory
ANSI	American National Standards Institute
Anti-Cs	Anti-Contamination Clothing
APR	Air-Purifying Respirator
ARAC	Atmospheric Release Advisory Capability (DOE)
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
ARG	Accident Response Group (DOE)
α	Alpha Particle
B	
B	Beta Particle
$\mathbf{B^+}$	B^+ Particle (positron)
$\mathbf{B^-}$	B^- Particle (electron)
Ba	Barium
BRA	Baseline Risk Assessment
BOC	Board of Commissioners
Bq	Becquerel
BEIR	Biological Effects of Ionizing Radiation
Btu	British Thermal Unit
BWR	Boiling Water Reactor
C	
CAP	Civil Air Patrol
CAP	Corrective Action Program (HSEEP)
$\mathbf{^oC}$	Degrees Celsius

Abbreviations and Acronyms	Meaning
C Cont'd.	
cc	Cubic Centimeter
CA	Cooperative Agreement
CC	Congregate Care
CCC	Congregate Care Center
CD	Civil Defense
CDV	Civil Defense Victoreen
CDC	U.S. Centers for Disease Control and Prevention (HHS)
CDE	Committed Dose Equivalent
CDRG	Catastrophic Disaster Response Group
CEDE	Committed Effective Dose Equivalent
CEM	Certified Emergency Management
CEMP	Comprehensive Emergency Management Plan
CFA	Cognizant Federal Agency
CFAO	Cognizant Federal Agency Official
cfm	Cubic feet per minute
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
Ci	Curie
CNSNS	Commission for Nuclear Safety and Safeguards
CPG	Civil Preparedness Guide
CPG	Comprehensive Preparedness Guide
cpm	Counts Per Minute
CRCPD	Conference of Radiation Control Program Directors
CSEPP	Chemical Stockpile Emergency Preparedness Program
Cs	Cesium
D	
DAC	Disaster Application Center
DBA	Design-based Accident
DeCon	Decontamination
DFO	Disaster Field Office
DHEW	U.S. Department of Health, Education, and Welfare
DHHS	U.S. Department of Health and Human Services
DHHS, DPH	Nebraska Department of Health and Human Services, Division of Public Health
DHS	U.S. Department of Homeland Security
DIL	Derived Intervention Level
DNA	U.S. Defense Nuclear Agency

Abbreviations and Acronyms	Meaning
D Cont'd.	
DOC	U.S. Department of Commerce
DoD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOH	U.S. Department of Health
DOI	U.S. Department of the Interior
DOL	U.S. Department of Labor
DOS	U.S. Department of State
DOT	U.S. Department of Transportation
DPM	Disintegrations Per Minute
DPS	Disintegrations Per Second
DRD	Direct-Reading Dosimeter
DRL	Derived Response Levels
DRP	Division of Radiation Protection (DOH Division)
DRSS	Division of Radiation Safety and Safeguards
DSO	Director of Site Operations (NRC)
E	
E 911	Enhanced 9-1-1
EAB	Exclusion Area Boundary
EACT	Emergency Action and Coordination Team
EAL	Emergency Action Level
EAS	Emergency Alert System (formerly Emergency Broadcast System [EBS])
EBS	Emergency Broadcast System (now the Emergency Alert System [EAS])
ECC	Emergency Communications Center
ECCS	Emergency Core Cooling System
ECL	Emergency Classification Level
EDE	Effective Dose Equivalent
EEM	Exercise Evaluation Methodology
EENET	Emergency educational Network
EICC	Emergency Information Coordination Center (FEMA)
EIS	Emergency Information System
EM	Emergency Management
EMI	Emergency Management Institute (FEMA)
EMPO	Emergency Medical Preparedness Office
EMS	Emergency Medical Services
EMT	Emergency Medical Technician

Abbreviations and Acronyms	Meaning
EO	Emergency Office
E.O.	Executive Order of the President
EOC	Emergency Operations Center (State or local government)
EOF	Emergency Operations Facility (utility)
EOP	Emergency Operations/Operating Plan or Procedure
EOP	Extent of Play
EOV	Emergency Operations Vehicle
EP	Emergency Preparedness
EPA	U. S. Environmental Protection Agency
EPD	Electronic Personnel Dosimeter
EPG	Exercise Preparation Guide
EPO	Environmental Protection Officer
EPZ	Emergency Planning Zone
ER	Emergency Room
ERC	Emergency Response Coordinator
ERDA	Energy Research and Development Administration
ERPA	Emergency Response Planning Area
ERPG	Emergency Response Planning Guidelines
ERPS	Effluents Radiation Protection Section
ERT	Emergency Response Team
ERT-A	Emergency Response Team – Advance
ESF	Emergency Response Function
ESP	Early Site Permit
EST	Emergency Support Team (FEMA)
ETA	Estimated Time of Arrival
ETE	Evacuation Time Estimate
ETS	Evacuation Time Study
EW	Emergency Worker
EWAC	Emergency Worker and Assistance Center
EWC	Emergency Worker Center
EWMDS	Emergency Worker Monitoring and Decontamination Station
F	
^{o}F	Degrees Fahrenheit
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation

Abbreviations and Acronyms	Meaning
F Cont'd.	
FCC	U.S. Federal Communications Commission
FCO	Federal Coordinating Officer
FCP	Field/Forward Command Post
FDA	U.S. Food and Drug Administration
FECC	Federal Emergency Communications Coordinator
FEMA	Federal Emergency Management Agency
FFE	Federal Field Exercise
FMT	Field Monitoring Team
FNF	Fixed Nuclear Facility
FOC	Forward Operations Center
FPC	Federal Preparedness Coordinator
FR	Federal Register
FRC	Federal Regional Center
FRC	Federal Response Center
FRERP	Federal Radiological Emergency Response Plan (superseded by NRF)
FRMAC	Federal Radiological Monitoring and Assessment Center
FRMAP	Federal Radiological Monitoring and Assistance Plan (replaced the IRAP and the NRF)
FRMT	Field Radiological Monitoring Team
FRPCC	Federal Radiological Preparedness Coordinating Committee
FRSSB	Facilities Radiological Safety and Safeguards Branch
FSA	Forward Staging Area
FSAR	Final Safety Analysis Report
ft	Foot/Feet
ft/min	Feet per Minute
ft^3/min	Cubic Feet per Minute
FTC	Field Team Coordinator
FTS	Federal Telecommunications System
G	
γ	Gamma ray (photon)
G	Gram
GAR	Governor's Authorized Representative
GE	General Emergency
gal	Gallon
GCF	Ground Concentration Factor
Ge(Li)	Lithium drifted Germanium

GIS	Geographic Information System

Abbreviations and Acronyms	Meaning
G Cont'd.	
GM	Guidance Memorandum
G-T	Geiger-Mueller (radiation detector)
GMT	Greenwich Mean Time (a.k.a. UTC or Zulu)
GPS	Global Positioning System
GSA	U.S. General Services Administration
Gy	Gray
H	
H	Hour
HAB	Hostile Action-based
HAZMAT	Hazardous Materials
HEAR	Hospital Emergency Administration Radio
HEPA	High-Efficiency Particulate Are (as in HEPA filters)
HF	High Frequency
HOO	Headquarters Operations Officer (NRC)
H_2	Hydrogen (molecular)
H_2O	Water
HF	Hydrogen Fluoride
HP	Health Physicist
HPSI	High Pressure Safety Injection
HPT	Health Physics Technician
HSEEP	Homeland Security Exercise and Evaluation Program
HSPD	Homeland Security Presidential Directive
HUD	U.S. Department of Housing and Urban Development
HQ	Headquarters
I	
I	Iodine
I	Exposure Intensity
IAEA	International Atomic Energy Agency
ICPAE	Interagency Committee for Public Affairs in Emergencies
ICP	Incident Command Post
ICS	Incident Command System
IDLH	Immediately Dangerous to Life or Health
IEP	Ingestion Exposure Pathway
INL	Idaho National Laboratory
INPO	Institute for Nuclear Power Operations
IP	Implementing Procedure

IRAC	Interagency Radiological Assistance Committee

Abbreviations and Acronyms	Meaning
I Cont'd.	
IRAP	Interagency Radiological Assistance Plan (replaced with FRMAP)
IRZ	Immediate Response Zone
ISCORS	Interagency Steering Committee on Radiation Standards
J	
JCAH	Joint Commission on Accreditation of Hospitals
JIC	Joint Information Center
JIS	Joint Information System
JNC	Joint News Center
JOC	Joint Operations Center
JPIC	Joint Public Information Center
K	
k	Kilo (SI prefix 10^3)
kg	Kilogram
KI	Potassium Iodide
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt Hour
L	
lb	Pound
lbf	Pound Force
LANL	Los Alamos National Laboratory
LAO	Lead Agency Official
Ld	Lethal Dose
LD-50	Lethal Dose – 50%
LEPC	Local Emergency Planning Committee
LERN	Law Enforcement Radio Net
LFA	Lead Federal Agency
LLNL	Lawrence Livermore National Laboratory
LOA	Letter of Agreement
LOCA	Loss of Coolant Accident
LOU	Letter of Understanding
LPN	Licensed Practical Nurse
LPZ	Low Population Zone
LWR	Light Water Reactor

Abbreviations and Acronyms	Meaning
M	
MAC	Monitoring and Analysis Coordinator
MAELU	Mutual Atomic Energy Liability Underwriters
MERRT	Medical Emergency Radiological Response Team
MERS	Mobile Emergency Response Support
MET	Meteorological
mg	Milligram
MHz	Megahertz
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPC	Maximum Permissible Concentration
mph	Miles Per Hour
mR	Milliroentgen/millirem
mR/h	Milliroentgen per Hour
mRem	Millirem
MRV	Mobile Response Vehicle
MS-1	Medical Service – 1 (Hospital)
MSHA	U.S. Mine Safety and Health Administration
MT	Metric Ton
MW	Megawatt Hour
MUDAC	Meteorological and Unified Dose Assessment Center
μ	Micro (SI prefix 10^{-6})
μCi	Microcuries
N	
NAAQS	National Ambient Air Quality Standards
NAERG	North American Emergency Response Guidebook
NaI(Tl)	Sodium Iodide Doped with Thallium (Scintillator)
NARP	Nuclear Accident Response Plan (or Procedures)
NASA	National Aeronautic and Space Administration
NAWAS	National Warning System
NCC	National Coordinating Center for Telecommunications
NCP	National Contingency Plan
NCRP	National Council on Radiation Protection Measurements
NCS	National Communications System
NDA	National Defense Area
NEI	Nuclear Energy Institute
NEMA	National Emergency Management Agency

Abbreviations and Acronyms	Meaning
N Cont'd.	
NEMA	Nebraska Emergency Management Agency
NEP	National Exercise Program
NETC	National Emergency Training Center (FEMA)
NFPA	National Fire Protection Association
NGO	Non-Governmental Organization
NIFC	National Interagency Fire Center
NIMS	National Incident Management System
NIOSH	U.S. National Institute for Occupational Safety and Health
NIST	U.S. National Institute of Standards & Technology (formerly National Bureau of Standards [NBS])
NMSS	Nuclear Materials Safeguards and Security
NOAA	U.S. National Oceanic and Atmospheric Administration
NOUE	Notice of Unusual Event
NPD	National Preparedness Directorate
NPP	Nuclear Power Plant
NPPD	Nebraska Public Power District
NPS	Nuclear Power Station
NPS	U.S. National Park Service
NRC	U.S. Nuclear Regulatory Commission
NRF	National Response Framework
NRIA	Nuclear/Radiological Incident Annex (NRF)
NRT	National Response Team
NSA	National Security Area
NTS	Nevada Test Site
NTSB	U.S. National Transportation Safety Board
NUREG	Nuclear Regulation (NRC Documents Reference)
NUREG 0654	NUREG-0654/FEMA REP-1, Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, November 1980 (a.k.a. NUREG – 0654/FEMA REP-1)
NWS	National Weather Service
O	
OAR	Office of Air and Radiation
OCRWM	Office of Civilian Radioactive Waste Management
OFA	Other Federal Agencies
OEM	Office of Emergency Management

Abbreviations and Acronyms	Meaning
O Cont'd.	
OMB	Office of Management and Budget
OPPD	Omaha Public Power District
ORIA	Office of Radiation and Indoor Air (EPA)
ORNL	Oak Ridge National Laboratory
ORO	Offsite Response Organization
OSC	Operational Support Center
OSC	On-Scene Commander
OSHA	U.S. Occupational Safety and Health Administration
OST	Operational Support Team
P	
PA	Public Address or Public Affairs
PAs	Protective Actions
PAD	Protective Action Decision
PAG	Protective Action Guide
PAO	Public Affairs Officer
PAR	Protective Action Recommendation
PAZ	Protective Action Zone
PFO	Principal Federal Official
PEL	Permissible Exposure Limit
PHS	Public Health Service
PIC	Pressurized Ion Chamber
PIO	Public Information Officer
PKEMRA	Post-Katrina Emergency Management Reform Act
PL	Public Law
POR	Point of Review
PPE	Personal Protective Equipment
ppm	Parts Per Million
psi	Pounds Per Square Inch
psia	Pounds Per Square Inch Absolute
psig	Pounds Per Square Inch Gage
Pu	Plutonium
PWS	Pressurized Water Reactor
PZ	Precautionary Zone
§	Part (see CFR)
Q	
Q	Release rate of Activity
Q_i	Isotopic Release Rate

Q_T	Total Activity Released

Abbreviations and Acronyms	Meaning
R	
R	Roentgen
R/h	Roentgen Per Hour
Ra	Radium
RA	Regional Administrator
RAC	Regional Assistance Committee
RAC AC	Regional Assistance Committee Advisory Council
RACES	Radio Amateur Civil Emergency Services
rad	Radiation Absorbed Dose
RADLAB	Radiological Laboratory
RAM	Radiological Material
RAP	Radiological Assistance Program
RASCAL	Radiological Assessment System for Consequence Analysis
RC	Reception Center
RCC	Reception and Congregate Care
RCF	Release Conversion Factor
RCS	Reactor Coolant System
RCT	Response Coordination Team
RDO	Regional Duty Officer
REA	Radioactive Emergency Area
REAC/TS	Radiation Emergency Assistance Center/Training Site
REACT	Radio Emergency Associated Communication Team (Citizen Band – CB Radio Operators
REDAM	Radiological Emergency Dose Assessment Model
REL	Recommended Exposure Limit
rem	Roentgen Equivalent man/mammal
REP	Radiological Emergency Preparedness
RERO	Radiological Emergency Response Operations
RERP	Radiological Emergency Response Plan
RERT	Radiological Emergency Response Team
RF	Radio Frequency
RG	Review Guide
R/h	Roentgens per Hour
RIS	Regulatory Issue Summary
RM	Radiological Monitor
RMT	Radiological Monitoring Team
RN	Registered Nurse
RO	Radiological Officer

Abbreviations and Acronyms	Meaning
R Cont'd.	
ROST	Regional Office Support Team
rpm	Revolutions Per Minute
RPT	Radiation Protection Technician
RRAC	Regional Radiological Assistance Committee
RRCC	Regional Response Coordination Center
RRF	Regional Response Force
RRT	Radiological Response Team
RRT	Regional Response Team
RX	Reactor
S	
SAE	Site Area Emergency
SAR	Search and Rescue
SAR	Safety Analysis Report
SARA	Superfund Amendments and Reauthorization Act of 1986
SAV	Staff Assistance Visit
SBA	U.S. Small Business Administration
SCBA	Self-Contained Breathing Apparatus
SCO	State Coordinating Officer
SEOC	State Emergency Operations Center
SERF	Standard Exercise Report Form
SFO	Senior FEMA Official (FRERP)
SGTR	Steam Generator Tube Rupture
SGTS	Standard Gas Treatment System
SI	International System of Dosage Units
SME	Subject Matter Expert
SOG	Standard Operating Guide
SOP	Standard Operating Procedure
Sr	Strontium
SRD	Self-Reading Dosimeter (See DRD)
SRF	Service or Agency Response Force
SRSC	Strategic Review Steering Committee
SRV	Safety Relief Valve
SSA	Senior State Advisor
SSE	Safe Shutdown Earthquake
ST-DOSE	Source Term To Dose
Sv	Sievert
SWAT	Special Weapons and Tactics

Abbreviations and Acronyms	Meaning
T	
TBA	Thyroid Blocking Agency (See KI)
TCL	Targeting Capabilities List
TCP	Traffic Control Point
TDD	Telecommunications Device for the Deaft
TEDE	Total Effective Dose Equivalent
TH	Technological Hazards
THD	Technological Hazards Division (FEMA)
TL	Team Leader
TLD	Thermoluminescent Dosimeter
TMI	Three Mile Island Nuclear Generating Station
TSC	Technical Support Center
TSP	Total Suspended Particles
TTC	Technical Training Center
TTX	Tabletop Exercise
U	
U	Uranium
µCi	microcuri
UHF	Ultra High Frequency
$U0_2F_2$	Uranyl fluoride
US&R	Urban Search and Rescue
USACE	U.S. Army Corps of Engineers
USC	United State Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
UTC	Coordinated Universal Time (a.k.a. GMT or Zulu)
V	
V	Volt
VA	U.S. Veterans Administration
VFD	Volunteer Fire Department
VFF	Very High Frequency
W	
W	Watt
WB	Whole Body
WP	Warning Point
Wt	Weight

Abbreviations and Acronyms	Meaning
X	
Y	
yd	Yard
yr	Year
Z	
Z	Atomic Number
Z	Zulu (a.k.a. UTC or GMT)
Zr	Zirconium

GLOSSARY OF REP TERMS

A full listing of disaster related definitions is contained in the State of Nebraska Emergency Operations Plan.

TERM	DEFINITIION
Absorbed Dose	Energy absorbed by matter from ionizing radiation per unit mass of irradiated material at the place of interest in that material. The absorbed dose is expressed in metric units of "gray" or customary units of "rad" (1 rad = 0.01 gray).
Access Control	All activities accomplished for the purpose of controlling entry or re-entry into an area that has either been evacuated or is under a sheltering protective action decision, because of radiological contamination to minimize the radiation exposure of individuals. This function is needed to prevent the general public from entering restricted areas (sheltered and/or evacuated) and permitting only emergency workers with essential missions and limited members of the general public to enter.
Accident Assessment	The evaluation of the actual and potential consequences of a radiological incident.
Accident Response Group (ARG)	The DOE Response Group. A team of technical and scientific experts composed of U. S. Department of Energy (DOE) and DOE contractor personnel assigned responsibility for and trained, organized and equipped to provide DOE assistance to a peacetime accident and significant incidents involving nuclear weapons anywhere in the world.
Action Levels	Thresholds for contamination levels that trigger the need for decontamination established in the plans.
Activated	An Emergency Operations Center is considered Activated as soon as notification of an incident is received and the Director/Commissioner/ EOC Representative makes the determination to activate the facility. The facility is not considered Operational until it is ready to carry out full emergency operations with key decision makers in place.
Activation of Personnel	The process by which emergency response personnel are notified of an emergency situation and requested to report for duty.
Activity	The rate of decay of radioactive material, expressed as the average number of nuclear disintegrations per second (See Becquerel and Curie).

TERM	DEFINITIION
Acute Dose	An acute dose means a person received a radiation dose over a short period of time, usually less than an hour.
Acute Effect	Symptom of exposure to a hazardous material; normally the result of a short-term exposure which comes quickly to a crisis.
Adequate	As used in reviews of radiological emergency response plans and procedures, adequate means that the plan contents are consistent and in full compliance with the plan requirements delineated in the NUREG-0654/FEMA-REP-1 evaluation criteria or alternative approaches approved by FEMA.
Aerial Measuring System (AMS)	A DOE asset consisting of an integrated remote-sensing capability for rapidly determining radiological and ecological conditions of large areas of the environment. In conjunction with modern laboratory and assessment techniques, state-of-the-art airborne equipment is used for extremely low-level gamma radiation detection, high-altitude photography, airborne gas and particulate sampling, and multi-spectral photography and scanning.
Agreement State	A state that has entered into an agreement under the Atomic Energy Act of 1954, as amended, in which the Nuclear Regulatory Commission (NRC) has relinquished to such states the majority of it regulatory authority over source material, by-product, and special nuclear material in quantities not sufficient to form a critical mass.
Agricultural Protective Action Guides	Are those PAGs that have been established to assist in decision-making for protecting the public from radiation that could be absorbed from the food chain. These PAGs are: 1. Preventative PAGs are those that establish a level at which responsible officials should take protective action to prevent or reduce the concentration of radioactivity in food or animal feed. 2. Emergency PAGs establish a level at which responsible officials should isolate food containing radioactivity to prevent its introduction into commerce, and at which the responsible officials must determine whether condemnation or another disposition is appropriate.
Airborne Radioactivity	Any radioactive material dispersed in the air in the form of dusts, fumes, mists, vapors, or gases.

TERM	DEFINITIION
Air Sampler	A device used to collect a sample of radioactive particulates suspended in air.
ALARA	Acronym meaning: "As Low As Reasonably Achievable".
ALERT	Within the Operational Emergency category, an Alert represents events in progress or having occurred which involve an actual or potential substantial reduction or the level of facility safety or protection. Any environmental releases of hazardous materials are expected to be limited to small fractions of the appropriate Protective Action Guideline (PAG) or Emergency Response Planning Guideline (ERPG) on-site.
Alerting of Personnel	Transmission of a signal or message that places personnel on notice that a situation has developed that may require that they report for emergency duty.
Alerting the Public	Activating an attention-getting warning signal through such means as sirens, tone alert radios, route alerting, and speakers on cars, helicopters, and boats.
Alert System	The hardware system(s) used to get the attention of the public within the plume EPZ. Examples of an Alert system are: sirens tone activated radios; and vehicles (including boats and airplanes) that utilize loud speakers/sirens, etc., to perform public alerting.
Alpha Particle	A positively charge particle ejected spontaneously from the nuclei of some radioactive elements. It is identical to a helium nucleus that has a mass number of 4 and an electrostatic charge of plus 2. It has low-penetrating power and short range (approximately 2 inches. The most energetic alpha particle will generally fail to penetrate the skin. Alpha is hazardous when an alpha-emitting isotope is introduced into the body. Alpha particles are the least penetrating of the three common types of radiation (alpha, beta, and gamma) and can be stopped by a piece of paper (cannot penetrate skin). If however, an alpha particle is inhaled or ingested, it will cause highly concentrated local damage to tissue and thus is an internal hazard. Symbol: α
Alternate EOC	An EOC outside the EPZ to which an emergency response organization may relocate if their "home EOC" is in the radioactive plume.
American Red Cross (ARC)	Supports Emergency Support Function #6 within the National Response Framework (NRF) and the Nebraska State Emergency Response Plan

TERM	DEFINITIION
ARC Cont'd.	(SEOP) in Mass Care by coordinating federal assistance in support of State and local efforts to meet the mass care needs of victims of disaster. This federal assistance will support the delivery of mass care services of shelter, feeding, and emergency first aid to disaster victims; the establishment of systems to provide bulk distribution of emergency relief supplies to disaster victims; and the collection of information to operate a Disaster Welfare Information (DWI) system to report victim status and assist in family reunification.
Anemia	A deficiency of blood as a whole, deficiency in the number of the red corpuscles, or the hemoglobin.
Anode	Positive electrode: Electrode to which negative ions are attached.
Alternate EOC	An EOC outside the EPZ to which an emergency response organization may relocate if their "home EOC" is in the radioactive plume.
Annual Limit On Intake (ALI)	The derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man (International Commission Radiological Protections Publication 23) that would result in a committed effective dose equivalent of 0.05 sievert (5 REMs) or a committed dose equivalent of 0.5 sievert (50 REMs) to any individual organ or tissue.
As Low As Reasonable Achievable (ALARA)	Principle which means keeping radiation exposure as low as is reasonably achievable, taking into account the state of technology, the economics of improvements in relation to the benefits to public health and safety, other societal and socioeconomic considerations, and the utilization of atomic energy in the public interest (10 CFR 72.3)
Area Requiring Corrective Action (ARCA)	An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety. Correction of ARCAs should be verified before or during the next biennial exercise at that site.
Assessment	The evaluation and interpretation of radiological measurements and other information to provide a basis for decision-making. Assessment can include projections of the off-site radiological impact.

TERM	DEFINITION
Assessment Actions	Those actions taken during or immediately after an incident or emergency to gather and process the information necessary to make decisions and to implement specific emergency measures.
Atmospheric Release Advisory Capability (ARAC)	A DOE asset capable of providing a computer-generated model of the most probable path of the radioactive contamination released at a radiological accident site.
Atom	The smallest particle of an element having the chemical properties of that element and which cannot be divided or broken up by chemical means; the fundamental building block of matter. It consists of a central core called the nucleus, which contains protons and neutrons. Electrons revolve in orbits around the nucleus.
Atomic Energy	Energy released in nuclear reactions, more appropriately called "nuclear energy". Of particular interest is the energy released when a neutron initiates the breaking up or fissioning of an atom's nuclear into smaller pieces (fission), or when two nuclei are joined together under millions of degrees of heat (fusion).
Atomic Mass	The number of protons and neutrons in the nuclear of an atom.
Atomic Number	The number of protons in the nucleus of an atom, and also its positive charge. Each chemical element has its characteristic atomic number, and the atomic numbers of the known elements form a complete series from 1 (hydrogen) to 118 (Ununoctium). Symbol Z.
Background Radiation	The level of radiation in man's natural environment. Sources air, water, soil, potassium-40 both outside and inside the bodies of humans and animals and cosmic radiation from the sun. Manmade sources of radioactivity contribute to total background radiation levels. Approximately 90 percent of background radiation from man-made sources is related to the use of ionizing radiation in medicine and dentistry. The usually quoted individual background radiation exposure in man's natural environment is an average of 360 millirem per year.
Baseline Risk Assessment	Baseline risk assessment (BRA), the study and estimation of risk from taking no activity. Involves estimates of probability and consequences.

TERM	DEFINITIION
Becquerel (Bq)	The Becquerel (Bq) is a unit of measure used to measure radioactivity. One Becquerel is that quantity of radioactive material that will have 1 transformation (also known as disintegration or count) in one second. Often radioactivity is expressed in larger units like: thousands (kBq), one millions (MBq) or even billions (GBq) of Becquerel. As a result of having one Becquerel being equal to one transformation per second, there are 3.7×10^{10} Bq in one curie. The basic (metric) unit used to express the measurement of a quantity of radioactivity. One Becquerel equals one disintegration per second.
Beta Particle	A charged particle emitted from a nucleus during radioactive decay having a single electrical charge and a mass equal to 1/1837 that of a proton. A negatively (-) charged beta particle is identical to an electron. A positively (+) charged beta particle is called a positron. Large amounts of beta radiation may cause skin burns, and beta emitters are harmful if they enter the body. Beta particles can penetrate the skin a fraction of an inch. Beta particles are easily stopped by a thin sheet of metal or plastic or personal protective equipment (PPE). As it can cause cataracts and tissue damage it is both an internal and external hazard. Symbol β.
Biological Effects:	The early or delayed results of biological damage caused by nuclear radiation (alpha, beta, gamma).
Biological Equivalent Dose (BED)	The equivalent dose (H_T) is a measure of the radiation dose to tissue where an attempt has been made to allow for the different relative biological effects of different types of ionizing radiation. Equivalent dose is therefore a less fundamental quantity than radiation absorbed dose, but is more biologically significant. Equivalent dose has units of sieverts. Another unit, Roentgen equivalent man (REM or rem), is still in common use in the US, although regulatory and advisory bodies are encouraging transition to sieverts (100 Roentgen equivalent man = 100 REM = 1 sievert.) Equivalent dose (H_T) is calculated by multiplying the absorbed dose to the organ or tissue (D_T) with the radiation weighting factor, w_R. This factor is selected for the type and energy of the radiation incident on the body, or in the case of sources within the body, emitted by the source. The value of w_R is 1 for x-rays, gamma rays and beta particles, but higher for protons, neutrons, alpha particles etc. $H_{T,R} = w_R \times D_{T,R}$ Where $H_{T,R}$ = equivalent dose to tissue T from radiation $RD_{T,R}$ = absorbed dose D (in grays) to tissue T from radiation R
Body Burden	The amount of radioactive material present in the body of a human or an animal.

TERM	DEFINITIION
Boiling Water Reactor (BWR)	A light-water reactor in which water, used as both coolant and moderator, is allowed to boil in the core. The resulting steam can be used directly to drive a turbine. Cooper Nuclear Station is a boiling water reactor.
Breeder Reactor	A nuclear reactor that produces or "breeds" more fissionable material than it consumes. The reactor is built with a core of fissionable plutonium – 239, surrounded by a blanket of uranium – 238. As the plutonium fissions, neutrons bombard the uranium converting the uranium blanket to more plutonium-239.
Btu	A British thermal unit. The amount of heat required to change the temperature of one pound of water one degree Fahrenheit as sea level.
Buffer Zone	An area adjacent to a restricted zone, to which residents may return, but for which protective measures are recommended to minimize exposure to radiation.
Buffer Zone (medical facilities)	An area (within a hospital or other medical facility) adjacent to the radiological emergency area (restricted zone) for which protective measures are recommended to minimize both exposure to radiation and the spread of radiological contamination to radiological clear areas of the facility.
By-Product Material	Any radioactive material (except special nuclear material) yielded in or made radioactive by exposure from the radiation incident to the process of producing or utilizing special nuclear material.
Calibration	The check or correction of the accuracy of a measuring instrument to ensure proper operational characteristics.
Carcinogen	A cancer causing agent.
Carcinoma	Malignant neoplasm composed of epithelial cells, regardless of their derivation.
Cask	A heavily shielded container used to store and / or ship radioactive materials. Lead and steel are common materials used in the manufacture of casks.

TERM	DEFINITIION
Chain-of-Custody Form	The documentation of the transfer of samples from one organization and individual to another with respect to the name of the organization and individual and dates of acceptance and/or transfer of samples.
Chain Reaction	A fission chain reaction occurs when a fissionable nucleus absorbs a neutron and fissions, releasing additional neutrons. These in turn can be absorbed by other fissionable nuclei, releasing more neutrons. A chain reaction is achieved when this process becomes self-sustaining.
Charged Particle	An ion; an elementary particle that carries a positive or negative electrical charge.
Check Source	A radioisotope with a known, relatively fixed activity level used to determine the responsiveness of survey instruments.
Chelating Agent	Chemicals that combine with metal ions and remove them from their sphere of action (the human body), also called sequestrants.
Chronic Dose	A chronic dose means a person received a radiation dose over a long period of time.
Chronic Effect	Effect of exposure to a hazardous material that develops slowly after many exposures or that recurs often.
Chronic Exposure	Exposure to small doses of radiation over an extended period of time. Repeated exposure or contact with a toxic substance over a long period of time. Or a term used to denote radiation exposure over a long duration, by fractionation or protraction. Generally any dosage absorbed over a period of 24 hours or longer.
Cladding	The outer jacket of nuclear fuel elements. It prevents corrosion of the fuel and the release of fission products into the coolant. Aluminum or its alloys, stainless steel and zirconium are common cladding materials.
Cobalt-60 (Co-60)	A radioactive isotope of cobalt formed from natural cobalt-59 by neutron activation in reactors. It is used for medical and industrial applications.
Cognizant Federal Agency (CFA)	The Federal Agency that owns, authorizes, regulates or is otherwise deemed responsible for the radiological activity causing the emergency and that has authority to take action on site.

TERM	DEFINITIION
Cognizant Federal Agency Official (CFAO)	Lead official designated by the CFA to manage its response at the site of a radiological emergency.
Committed Dose	The dose that will be received over a period of 50 years from the ingestion or inhalation of a particular quantity of a radionuclide or specific mix of radionuclides.
Committed Dose Equivalent (CDE)	Organ Dose. The dose equivalent to organs or tissues of reference that will be received from an intake of radioactive material by an individual during the 50-year period following ingestion.
Committed Effective Dose Equivalent (CEDE)	Internal Dose. The sum of the 50-year committed dose to individual organs from inhalation (or ingestion) of radionuclides, where the individual organ does have weighted so that the associated risk of fatal cancer can be added to the risk of fatal cancer from whole-body dose.
Congregate Care (CC)	The provision of temporary housing and basic necessities for evacuees.
Congregate Care Center (CCC)	A facility for temporary housing, care, and feeding of evacuees.
Congregate Care Facility (CCF)	A public or private building located in a reception area and capable of housing and caring of evacuees.
Consequence	The result or effect (especially projected doses or dose rates) of a release of radioactive or hazardous materials to the environment.
Consequence Assessment	See Assessment.
Consolidation	The process whereby fuel rods are removed from an assembly and placed into a container in which a minimum of space is left unoccupied by the rods.
Containment	The provision of a gas-tight shell or other enclosure around a reactor that confines fission products and prevents their release to the environment in an accident.
Contaminated	The status resulting from the adhesion of radioactive particulates on the surface of structures, areas, objects, or personnel.

TERM	DEFINITIION
Contaminated, injured, or exposed individuals	Individuals who are: (1) contaminated with radioactive material that cannot be removed by the simple methods described in NUREG-0654/FEMA-REP-1, Criteria J.12. and K.5.b., (2) contaminated and otherwise physically injured, or (3) exposed to high levels of radiation.
Contamination	(1) A frequently misunderstood term, contamination refers to radioactive materials not in their intended containers. "Fixed" or "Loose" contamination depends on the degree of effort required to unfix or remove the contamination from a surface. (2) A hazardous substance dispersed in materials or places where it is undesirable or not wanted.
Control Cell	Exercise personnel who facilitate interfaces with nonparticipating groups, such as State, local, and tribal government officials and special needs populations.
Control Rod	A rod containing a material that readily absorbs neutrons (such as boron). It is used to control the power of a nuclear reactor. By absorbing neutrons, a control rod slows the fission chain reaction by preventing neutrons from causing further fission.
Controller Injects	The introduction of events, data, and information into exercises to drive the demonstration of objectives.
Coolant	A substance, usually water, circulated through a nuclear reactor to remove or transfer heat.
Cool Down	The gradual decrease in reactor fuel rod temperature caused by the removal of heat from the reactor coolant system.
Cooling Tower	A heat exchanger designed to aid in the cooling of water that was used to cool exhaust steam exiting the turbines of a power plant. Cooling tower transfer exhaust heat into the air instead of into a body of water.
Coordinate	To bring into common action so as not to unnecessarily duplicate or omit important actions (does not involve direction of one agency by another).
Coordinating Agency	The federal agency that owns, authorizes, regulates, or is otherwise deemed responsible for the radiological activity causing the emergency and that has the authority to take action on-site. Normally for nuclear power station incidents, this function will be accomplished by the Nuclear Regulatory Commission.

TERM	DEFINITIION
Core	The central portion of a nuclear reactor containing the fuel elements, moderator, neutron poisons, and support structures.
Core Melt Accident	Is a reactor accident in which the fuel core melts because of overheating.
Corrective Actions	Those measures taken to terminate or mitigate the consequences of an emergency at or near the source of the emergency.
Counting	Using an instrument to detect individual particles or gamma rays which interact with the detector on the instrument. For example, ambient radiation can be counted, or alternatively, the radiation emitted by specific samples can be counted in units of counts per minute (cpm) or counts per second (cps).
Critical	Able to sustain a nuclear reaction at a constant level.
Critical Mass	The mass of fissionable material needed to support a self-sustaining chain reaction.
Criticality	A term used in reactor physics to describe the state when the number of neutrons released by fission is exactly balanced by the neutrons being absorbed (by the fuel and poisons) and escaping the reactor core. A reactor is said to be "critical" when it achieves a self-sustaining nuclear chain reaction.
Cumulative Dose (Radiation)	The total dose resulting from repeated exposure to radiation of the same region, or of the whole body.
Curie (Ci)	The basic (customary) unit of radioactivity used to describe the intensity of radioactivity in a sample of material. One curie is equal to 37 billion disintegrations (nuclear transformations) per second (or 37 Becquerel's). So, in one curie, 37 billion atoms decay in one second. Several commonly used fractions of the curie include: millicurie: 1/1,000 of a curie, (one thousandth of a curie, abbreviated mCi) microcurie: 1/1,000,000 of a curie (one millionth of a curie, abbreviated µCi) nanocurie: 1/1,000,000,000 of a curie (one billionth of a curie, abbreviated nCi) picocurie: 1/1,000,000,000,000 of a curie (one trillionth of a curie, abbreviated pCi)
Daughter Product	An element formed by the radioactive decay of another element; often daughter products are radioactive themselves.

TERM	DEFINITIION
Decay (Radioactive)	[1] "The process whereby radioactive particles undergo a change from one form, or isotope, to another, releasing radioactive particles and/or energy." [2] "The decrease in activity of any radionuclide over time, due to spontaneous emission of radiation from its atomic nuclei of either alpha particles, beta particles, or gamma rays. The rate of decay for a radionuclide is related to its half-life. [3] "Disintegration of the nucleus of unstable atoms by spontaneous emission of charged particles, electromagnetic radiation or both". [4]The decrease in the radiation intensity of any radioactive material with respect to time.
Decontamination	[1]The reduction or removal of contaminating radioactive material from a structure, area, object, or person. Or the removal of unwanted material (typically radioactive material) from facilities, soils, equipment or persons by washing, chemical action, mechanical cleansing or other techniques. [2]The process of making any person, object, or area safe by absorbing, destroying, neutralizing, making harmless or removing radioactive material clinging to or around it.
Decontamination Station	A building or location suitably equipped and organized where personnel and material are cleansed of radiological contamination.
Deficiency	An observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant.
Depleted Uranium	Uranium having a percentage of uranium-235 smaller than the 0.7% found in natural uranium. It is obtained from spent (used) fuel elements or as byproduct tails or residues from uranium isotope separation.
Derived Response Level (DRL)	The calculated concentration of a particular radionuclide in a particular medium (e.g., food) that will produce a dose equal to a protective action guide.
Design Basis Accidents (DBA)	Design Basis Accidents (DBAs) are accidents that are postulated for the purpose of establishing functional requirements for safety significant structures, systems, components, and equipment.

TERM	DEFINITIION
Direction and Control	The management of emergency functions within a particular context (e.g., an emergency operations center) through leadership and use of authority.
Direct-Reading Dosimeter (DRD)	A small ionization detection instrument that indicates radiation exposure directly. An auxiliary charging device is usually necessary. A DRD is also referred to as a "pencil dosimeter", "pocket dosimeter", and "self-reading" dosimeter.
Disabled Individual	An individual who is hearing-impaired, vision-impaired, non-ambulatory and requires support (e.g., crutches), frail, dependent upon life-support systems, and/or mentally or emotionally impaired.
Dose	[1]"Quantity of radiation or energy absorbed from ionization per unit of mass of tissue; measured in grays (rad)." [2]"The amount of energy deposited in body tissue due to radiation exposure. Various technical terms, such as dose equivalent, effective dose equivalent, and collective dose, are used to evaluate the amount of radiation an exposed person receives. These terms are used to describe the differing interactions of radiation with tissue as well as to assist in the management of personnel exposure to radiation." [3]"A general term for denoting the quantity of radiation or energy absorbed. If unqualified, it refers to absorbed dose. For special purposes it must be appropriately qualified. If used to represent exposure expressed in roentgens (R), it is a measure of the total amount of ionization that the quantity of radiation could produce in air."
Dose Equivalent	A term used to express the amount of effective radiation when modifying factors have been considered. The product of absorbed dose multiplied by a quality factor multiplied by a distribution factor. It is expressed numerically in rem. The product of the absorbed dose in rad, a quality factor related to the biological effectiveness of the radiation involved and nay other modifying factors.
Dose Equivalent (H)	[1]"A quantity of measurement used in radiation protection. This term expresses all radiations on a common scale for evaluating and comparing the effects of radiation in man. It is defined as the product of the absorbed dose in grays (rads), and certain modifying factors. The unit of dose equivalent is the sieverts (REM)." [2]"The product of the absorbed dose (D) in gray (rad) in tissue, a quality factor (Q), and all other gray (rad) definition modifying factors (N). Dose equivalent is expressed in units of sievert (REM) {0.01 sievert =

TERM	DEFINITIION
Dose Equivalent (H) Cont'd.	1 REM}." [3]"A term used to express the amount of effective radiation received by an individual. A dose equivalent considers the type of radiation, the amount of body exposed, and the risk of exposure. Measured in sieverts (REMs)."
Dose Limits for Emergency Workers	The allowable accumulated dose during the entire period of the emergency. Action to avoid exceeding the limit is taken based on actual measurements of integrated gamma exposure. In contrast, protective action guides are trigger levels of projected dose at which actions are taken to protect the public. These are taken prior to the dose being received.
Dose Rate	The absorbed dose delivered per unit of time. It is usually expressed as grays (rads) per hour, or in multiples or submultiples of these units such as millirads per hour. The dose rate is commonly used to indicate the level of hazard from a radioactive source.
Dosimeter	[1]A portable device such as a TLD, film badge, or direct-reading ionization chamber used for measuring and registering the total accumulated exposure to ionizing radiation. [2]"An instrument that measures exposure to ionizing radiation. A small pocket-sized ionization chamber used for monitoring radiation exposure of personnel. It is known as a direct-reading dosimeter, pocket dosimeter, and self-reading dosimeter." [3]"A device to measure accumulated radiation dose." [4]"This could be a film badge, thermoluminescent dosimeter, or an electrostatic pocket dosimeter."
Dosimetry	The measurement of radiation doses. It applies to both the devices used (dosimeters) and to the techniques.
Drills and Exercises	Drills and exercises simulate or are based on possible real-life scenarios in order to improve emergency management, and should be based on the hazards identified for the specific region. There are several types of drills and exercises. They include: a. **Drill**: A drill is a supervised activity with a limited focus to test a procedure that is a component of the organization's overall emergency management or REP plan. That is, drills usually highlight and closely examine a limited portion of the overall emergency management plan or emergency response effort. For example, an organization might conduct a drill for the use of a radio system with those responsible for communicating on it.

TERM	DEFINITIION
Drills and Exercises Cont'd.	b. **Tabletop Exercise**: A tabletop exercise uses written and verbal scenarios to evaluate the effectiveness of an organization's emergency management or REP plan and procedures and to highlight issues of coordination and assignment of responsibilities. Tabletop exercises do not physically simulate specific events, do not utilize equipment, and do not deploy resources. In a tabletop exercise, a facilitator usually coordinates discussion.
	c. **Functional Exercise**: A functional exercise simulates a disaster in the most realistic manner possible without moving real people or equipment to a real site. A functional exercise utilizes a carefully designed and scripted scenario, with timed messages and communications between players and simulators. The emergency operations center (EOC) – the facility or area form which disaster response is coordinated – is usually activated during a functional exercise and actual communications equipment may be used.
	d. **Full-Scale Exercise or Field Exercise**: A full-scale exercise is often the culmination of previous drills and exercises. It tests the mobilization of all or as many as possible of the response components, takes place in "real time," employs real equipment, and test several emergency functions. "Controllers," who maintain order and ensure that the exercise proceeds according to plan, are also usually used. Full-scale exercises are generally intended to evaluate the operations capability of emergency management systems in a community and to evaluate interagency coordination.
Dry Storage Facility	Shielded mobile or stationary containers, silos, modules, vaults, or dry wells filled with an inert gas or with air, as appropriate, in which spent fuel assemblies or canisters of highly radioactive material may be stored.
Edema	Presence of abnormally large amounts of fluid in the intercellular tissue spaces of the body or part of the body.
Effective Dose Equivalent (H_E) (EDE)	[1]The sum of the products of the dose equivalent to each organ on a weighting factor, where the weighting factor is the ratio of the risk of mortality from delayed health effects arising from irradiation of a particular organ or tissue to the total risk of mortality from delayed health effects arising from irradiation of a particular organ or tissue to the total risk of mortality from delayed health effects when the whole body is irradiated uniformly to the same dose. [2]The summation of the products of the dose equivalent received by specified tissues of the body (H_T) and the appropriate weighting factors (W_T) – that is ($H_E = {}^{\Sigma}W_T H_T$). It includes the dose from radiation sources internal and/or external to the body. The effective dose equivalent is expressed in units of sievert (REM).

TERM	DEFINITIION
Effective Half-Life	The time required for a radionuclide contained in a biological system, such as in humans, to reduce its activity by half, as a combined result of radioactive decay and biological elimination.
Effluent	A waste discharge as a liquid.
Electromagnetic Radiation	A traveling wave motion that results from changing electric and magnetic fields. Familiar electromagnetic radiations range from those of short wavelengths, like x-rays and gamma rays, through the ultraviolet, visible, and infrared regions, to radar and radio waves of relatively long wavelengths.
Electron	An elementary particle with a negative charge. Electrons orbit the positively charged nucleus and determine the chemical properties of the atom. Symbol e-.
Element	Any of the 115 known chemical substances that cannot be broken down further without changing its chemical properties. Singularly or in combination, elements constitute all matter.
Emergency	An unexpected event during the operation of a nuclear facility that has a significant effect on the safety of the facility, personnel, or the public.
Emergency Actions	A collective term encompassing the assessment, corrective, and protective actions taken during the course of an emergency.
Emergency Action and Coordination Team (EACT)	The DOE senior management team at DOE Headquarters that coordinates the initial FRMAP response to a radiological emergency.
Emergency Alert System (EAS)	Emergency Alert System. The Emergency Alert System is composed of AM, FM, Cable and T.V. broadcast stations, the National Weather Service (NWS), and non-government industry entities operating on a voluntary, organized basis during emergencies at the national, state, or operational levels. This is one means by which emergency information may be disseminated to the public.

TERM	DEFINITIION
EAS Activation, Operational Area	The process by which A-1 station begins transmission of an emergency message after being contacted by a designated official. Implies transmission of an emergency action notification attention signal to all participating EAS stations in the operational area. These stations, at the discretion of management, will conduct operations following the State EAS plan.
EAS Common Program Control Station (LP-1)	This is the principle station in an EAS Operational Area as outlined in the State EAS Plan. The LP-1 station coordinates the flow of emergency information through the other stations in the operational area that are voluntarily participating in the EAS. Following FCC regulations, for a station to be considered an LP-1 station, it must be able to provide coverage for the duration of the given incident. At all times, operation of EAS is subject to the independent discretion and responsibility of the radio stations concerned.
EAS Operational Area	This is a specified multi-county area. Designated local officials can request activation and provide information for the Operational Area EAS system. Operational Area activation may also be arranged by the SEOC. Cooper and Fort Calhoun Nuclear Stations are located in EAS Operational Area 1.
Emergency Action Levels	Specific, predetermined, observable criteria used to detect, recognize, and determine the emergency class of Nuclear Power Station/Plant operational emergencies. An EAL can be: an instrument reading; an equipment status indicator; a measurable parameter, on-site or off-site; a discrete, observable event; results of analyses; or another observed phenomenon that indicates entry into a particular emergency class.
Emergency Class	A subset under the categories of emergency (Operation, Energy, Continuity of Government). The class further differentiates an emergency by the degree of severity, depending on the actual or potential consequences of the emergency situation. For the Operational and Energy Emergency subcategories (i.e. Nuclear Power Stations), the classes are: Notice of Unusual Event, Alert, Site Area Emergency, and General Emergency.
Emergency Classification Level(s) (ECL)	Applies to commercial nuclear power plants only. They are: 1. **Notification of Unusual Event (NOUE)**: Indicates that unusual events are in progress or have occurred that indicate a potential degradation in the level of plant safety or indicate a security threat to facility protection. No releases of radioactive material requiring offsite response or monitoring are expected, unless further degradation

TERM	DEFINITIION
	1. Notification of Unusual Event (NOUE) Continued: Of safety systems is expected or occurs.
	2. **Alert**: Indicates that events are in progress or have occurred that involve an actual or potential substantial degradation in the level of plant safety or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Releases are expected to be limited to small fractions of the EPA protective action guides (PAG) exposure levels.
Emergency Classification Level(s) (ECL) **Cont'd.**	3. **Site Area Emergency (SAE)**: Indicates that events are in progress or have occurred that involve actual or likely major failures in the plant functions needed for protecting the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Releases are not expected to exceed EPA PAG exposure levels beyond the site boundary.
	4. **General Emergency (GE)**: Indicates that events are in progress or have occurred that involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases can reasonably be expected to exceed EPA PAG exposure levels offsite for more than the immediate site area. 5.
Emergency Information and Coordination Center (EICC)	The FEMA 24-hour national emergency center from which the EST operates. EICC communications link the SFO, FEMA Regional and headquarters staff, and other Federal departments and agencies at the national level with one another.
Emergency Information	Material designed to improve public knowledge or understanding of an emergency.
Emergency Instructions	Information provided to the general public during an emergency pertaining to protective action recommendations (PARs) for actions such as evacuation and sheltering. See Special News Broadcast.

TERM	DEFINITIION
Emergency Operations Facility (EOF)	[1]An emergency center operated by nuclear power station management. This center is the base of operations for nuclear power station support, on-site and off-site environmental surveillance, communications, as well as can serve as the point of interface between state and local governments. [2]A facility that is the primary base of emergency operations for the Licensee in a radiological incident. An onsite operations facility provided by the NRC Licensee to facilitate the management of an overall emergency response. Utility and State officials, and a very limited number of Federal personnel may be accommodated.
Emergency Operations Center (EOC)	A facility that is the primary base of emergency operations for an ORO in a radiological emergency. Is a protected central command and control facility responsible for carrying out the four phases of emergency management, i.e. preparedness, response, recovery and mitigation. In the response phase it carries out disaster management functions at the strategic level in emergency situations, ensuring the continuity of operations and coordinates assistance for the incident commander and emergency response agencies responding in support of the incident commander.
Emergency Phase	The Initial phase of response actions, during which actions are taken in response to a threat of release or a release in progress.
Emergency Plan	A brief, clear, and concise description of the overall emergency organization, designation of responsibilities, and procedures, including notifications, involved in coping with any and all aspects of a potential credible emergency.
Emergency Planning	The development and preparation of emergency plans and procedures and the identification of necessary personnel and resources to provide an effective response.
Emergency Planning Zone (EPZ)	[1]A generic geographical area surrounding a commercial nuclear power station for which special off-site emergency planning and preparedness efforts are carried out to ensure that prompt and effective protective actions can be taken to reduce or minimize the impact to on-site and off-site personnel, public health and safety, and the environment in the event of an operational emergency. For commercial nuclear power stations, EPZs of about 10 and 50 miles are delineated for the plume and ingestion pathways respectively. [2]A geographic area surrounding a commercial nuclear power plant for which emergency planning is needed to ensure that prompt and effective actions can be taken by

TERM	DEFINITIION
Emergency Planning Zone (EPZ) Cont'd.	State and local governments to protect the public health and safety in the event of a radiological accident. The plume pathway EPZ is approximately 10 miles in radius, while the ingestion pathway EPZ has a radius of approximately 50 miles. Although the radius of the emergency planning zones implies a circular area around the Nuclear Power Station, the actual shape, especially for the 10-mile plume pathway EPZ will depend on conditions such as topography, land use characteristics, access routes and jurisdictional boundaries and other considerations.
Emergency Protective Actions	[1]Measures taken prior to and after a release of radioactive materials to prevent or minimize radiological exposures to persons in the threatened area. Examples of emergency protective actions as discussed in this plan are: area access control, evacuation, in-house shelter, decontamination and respiratory protection. [2]Protective actions to isolate food to prevent its introduction into commerce and to determine whether condemnation or other disposition is appropriate.
Emergency Response Planning Area	See "Planning Area".
Emergency Response	The implementation of planning and preparedness during an emergency involving the effective decisions, actions, and application of resources that must be accomplished to mitigate consequences and recover from an emergency.
Emergency Response (ER) Manager	The Health Physics Professional from the Nebraska DHHS, DPH who is in charge and responsible for all radiological health decisions for the DHHS, DPH response team and all radiological health recommendations to the GAR for the health and safety of the general public.
Emergency Response Team (ERT)	A FEMA team deployed to a radiological emergency scene by the FEMA Administrator to make an initial assessment of the situation and then provide FEMA's primary response capability.
Emergency Support Team (EST)	The FEMA Headquarters' team that carries out notification, activation, and coordination procedures from the FEMA EICC. The EST is responsible for Federal agency headquarters coordination, staff support of the FEMA Administrator, and support of the SFO.

TERM	DEFINITIION
Emergency Worker (EW)	[1]A person or persons who are primarily responsible for carrying out emergency functions. Emergency functions include radiological monitoring, fire fighting services, law enforcement, medical and health services, rescue activities, area security functions, communications, evacuation measures, welfare services, and other related functions assigned by competent authority to protect the health, safety and property of the general populace. [2]Individual who has an essential mission zone to protect the health and safety of the public who could be exposed to ionizing radiation from the plume or from its deposition. Some examples of emergency workers are: radiation monitoring personnel; traffic control personnel; evacuation vehicle drivers; fire and rescue personnel, including ambulance crews; medical facilities personnel; emergency operations center personnel; personnel carrying out backup alerting procedures; and essential services or utility personnel.
Epidermis	The outermost layer of skin.
Epilation (Depilation)	The temporary or permanent removal of hair.
Erythema	An abnormal redness of the skin, due to distension of the capillaries with blood. It can be caused by many different agents; e.g., heat, certain drugs, ultraviolet rays, ionizing radiation.
Erythrocyte	A red bold corpuscle.
Essential Emergency Functions	These include communications, direction and control of operations, alert and notification of the public, accident assessment, information for the public and media, radiological monitoring, protective response, and medical and public health support.
Evacuation	The orderly withdrawal of individuals from a hazardous or threatened are until such time as the area is again deemed safe for use.
Evacuation (Citizen Evacuation)	A population protection strategy involving orderly movement of people away from an actual or potential hazard, and providing reception centers for those without their own resources for temporary relocation.
Evacuation Time Study (ETE)	An estimate, contained in emergency plans, of the time that would be required to evacuate general and special populations within the plume pathway emergency planning zone under emergency conditions.

TERM	DEFINITIION
Evaluation Area Criterion	One of the 33 areas of ORO response capability which are evaluated during a REP exercise and which are contained in the FEMA REP Program Manual.
Evaluation Module	A tool for evaluator to document exercise performance.
Event	Any real-time occurrence or significant deviation from planned or expected behavior that could endanger or adversely affect people, property, or the environment.
Exception Area	An area located approximately 5 to 10 miles from a nuclear power plant and specifically designated in an ORO's plan, for which the 15-minute alerting and notification provision does not apply. For exception areas, offsite authorities have approximately 45 minutes to complete alert and notification of the public.
Exclusion Area	The area surrounding a nuclear power station in which the reactor licensee has the authority to determine all activities including exclusion or removal of personnel and property from that area. A specific area off-limits (miles) from a nuclear plant, but the term is synonymous with "on-site".
Exercise	See "Drills and Exercises".
Exercise Issue	A problem in organizational exercise performance that is linked with specific NUREG-0654/FEMA-REP-1 standards and applicable evaluation criteria. There are two categories of exercise issues: Deficiencies and Areas Requiring Corrective Actions (ARCAs).
Exposure	[1]A quantity used to indicate the amount of ionization in air produced by x- or gamma radiation. The unit is the roentgen (R). For practical purposes, one roentgen is comparable to 1 rad or 1 REM for x- and gamma radiation. [2]The absorption of radiation or ingestion of a radionuclide. The exposure at a given point is a measurement of radiation in relation to its ability to produce ionization. The unit of measurement of the exposure is the roentgen. A measure of radiation dose received by a person, usually broken down and used to refer to whole-body exposure compared with exposure with exposure to the hands only.
Exposure Rate	The amount of gamma radiation that an individual would receive in one hour as measured in air (typically expressed in units of mircorem per hour, millirem per hour or rem per hour).

TERM	DEFINITIION
Extent of Play (EOP)	The document that describes the agreed-up level of play vs. simulation at an emergency response exercise. May describe evaluation criteria to be demonstrated, equipment (including vehicles to be used), personnel to be deployed, facilities to be activated, etc.
Extremities	The hands and forearms and, with restrictions, the head, feet, and ankles. (Permissible radiation exposures in these regions are generally greater than in the whole body because they contain less blood-forming material and have smaller volumes for energy absorption.
Facility	Any building, center, room(s), or mobile unit(s) designed and equipped to support emergency operations.
Fast-Breaking Incident	Situation exists, severe core damage, requiring urgent action.
Federal Coordinating Officer (FCO)	The Federal official appointed by the President upon declaration of a major disaster or emergency under Public Law 93-288 to coordinate the overall Federal response.
Federal Emergency Management Agency (FEMA)	The agency responsible for establishing federal policies for and coordinating all civil defense and civil emergency planning, management, mitigation, and assistance functions of executive agencies. FEMA assists local and State agencies in their emergency planning. Its primary role is one of coordinating Federal, State, local and volunteer response actions.
Federal Radiological and Monitoring Assessment Center (FRMAC)	The FRMAC is a facility established by the Department of Energy usually at an airport near the scene of an radiological emergency, from which the off-site Technical Director conducts the Federal Radiological Monitoring and Assessment Plan (FRMAP) under the direction of the State or States' National Incident Management System set-up.
Federal Radiological Preparedness Coordinating Committee (FRPCC)	The National level coordination mechanism to provide technical assistance to State and local governments (see 44 CFR Part 351).

TERM	DEFINITIION
Federal Response Center (FRC)	The On-scene focal point established by the Senior FEMA Official, as required, for coordinating the Federal response to an incident. Representatives of other Federal, State, local, and volunteer agencies will be located in the center.
Feed Water	Water supplied to the reactor pressure vessel (in a BWR) or the steam generator (in a PWR) that removes heat from the reactor fuel rods by boiling and becoming steam. The steam becomes the driving force for the plant turbine generator.
Field Command Post (FCP)	A center, either mobile or fixed, set up in a location convenient to the accident site, to facilitate emergency response, especially, for example, accident assessment activities such as direction of the field monitoring teams.
Field Team Coordinator (FTC)	The individual who manages the functions of field teams and coordinates data with the dose assessment group located in emergency operation centers and facilities.
Field Monitoring	The use of sensitive detection equipment instruments by trained personnel to perform measurements to determine the presence and levels of radioactive or other hazardous substance contamination at selected geographical locations in the off-site environment.
Fission	The splitting of a heavy nuclear into two or more radioactive nuclei, accompanied by the emission gamma rays, neutrons and a significant amount of energy. Fission usually is initiated by the heavy nucleus absorbing a neutron, but it also can occur spontaneously.
Fission Gases	Those fission products that exist in the gaseous state. Primarily the noble gases (e.g., krypton, xenon, radon).
Fission Products	The nuclei (fission fragments) formed by the fission of heavy elements plus the nuclides formed by the fission fragment in radioactive decay.
Film Badge	A photographic film packet to be carried by personnel, usually in the form of a badge, used for measuring and permanently recording gamma ray dosage.

TERM	DEFINITIION
Fixed Nuclear Facility (FNF)	A stationary nuclear installation that uses or produces radioactive materials in its normal operations. FNFs include commercial nuclear power plants and other fixed facilities.
Fixed Contamination	Contamination that remains after loose contamination has been removed by decontamination.
Fixed (reproducible) Geometry	A method of measuring levels of radioactivity in samples by using a standard size or volume of samples held at a fixed distance from the measuring instrument.
Food Chain	The pathway of any material through the environment to edible plants, animals and ultimately to humans.
Forward EOC	If the State EOC is a significant distance from the plant site, the plans may indicate that a near-site or forward EOC will be established at the time of an accident.
Forward Command Post (FCP)	In a location near the affected area used to direct the activities of State field personnel performing emergency tasks in support of local government response. At times this location can also be the location for field team coordination.
Forward Operations Post (FOP)	A location in or near the affected area used to coordinate the monitoring and sampling activities of the Radiological Emergency Response Teams.
Forward Staging Area (FSA)	Location near accident site for location of resources for deployment.
Fuel Cycle	The series of steps involved in supplying fuel for nuclear power reactors. It includes mining, fabrication of fuel elements and assemblies, their use in a reactor, reprocessing spent fuel and re-fabrication into new fuel elements.
Fuel Element	A rod or other form into which nuclear fuel is fabrication for use in a nuclear reactor.

TERM	DEFINITIION
Fusion	The formation of a heavier nucleus form two lighter ones, with the release of energy.
Gamma Radiation	[1]The most penetrating of the three types of ionizing radiation. Gamma ray are electromagnetic radiation-like light, radio waves and microwaves. Similar to, but usually more powerful than X-Rays, they have no mass; they are only energy. Gamma Rays are best stopped or shielded against by dense material such as concrete or lead. [2]High energy, short wavelength electromagnetic radiation emitted from the nucleus. Gamma radiation frequently accompanies alpha and beta emissions and always accompanies fission. Gamma rays are very penetrating and are best stopped or shielded against by dense materials, such as lead or depleted uranium. Gamma rays are essentially similar to x-rays but are usually more energetic and are nuclear in origin.
Governor's Authorized Representative (GAR)	The person authorized by the Governor of the State concerned to act in the Governor's stead in all matters related to a nuclear power plant accident.
Geiger-Mueller (G-M) Detector	[1]A type of radiation detector that can be used to measure the gamma, or beta plus gamma radiation depending on whether the detector is covered by a beta shield. [2]An instrument used to detect and measure radiation. The detecting element is a gas-filled chamber operated by a voltage whose electrical discharge will spread over the entire anode when triggered by a primary ionizing event.
General Emergency (GE)	One of the classes of emergencies in the Operational and Energy Emergency Categories. Within the category of Operational Emergency, a General Emergency represents events which are in progress or have occurred that involve actual or imminent catastrophic failure of facility safety systems with potential for loss of confinement integrity, catastrophic degradation of facility protection systems which could lead to substantial off-site impacts. Any environmental release of hazardous materials can reasonably be expected to exceed the appropriate Protective Action Guide (PAG) off-site.
Generator	Any person who is licensed by the Nuclear Regulatory Commission to use a utilization or production facility under the authority of the Atomic Energy Act of 1954.

TERM	DEFINITIION
Genetic Effects	Genetic effects are those effects from some agent, like radiation, that are seen in the offspring of the individual who received the agent/exposure. The agent/exposure must be encountered preconception.
Gray	The gray (Gy) is a unit used to measure a quantity called absorbed dose. This related to the amount of energy actually absorbed in some material, and is used for any type of radiation and any material. One gray is equal to one joule of energy deposited in one kg of material. The unit gray can be used for any type of radiation, but it does not describe the biological effects of the different radiations. Absorbed dose is often expressed in terms of hundredths of a gray, or centigrays. One gray is equivalent to 100 rads.
Groundshine	Gamma and/or beta radiation from radioactive material deposited on the ground.
Half-Life	[1]"The time required for the activity of a radionuclide to decrease to half its initial value due to radioactive decay." [2]"The time required for a radioactive substance to lose 50 percent of its activity by decay. The half-life of the radioisotope plutonium-239, for example is 24,000 years. Starting with a pound of plutoinium-239, in 24,000 years there will be one-half pound of plutonium-239 , in another 24,000 years there will be one-fourth pound, and so on. (A pound of material remains, but it gradually becomes a stable element.)" [3]The time required for the activity of a given radioactive species to decrease to half its initial value due to radioactive decay. The half-life is a characteristic property of each radioactive species and is independent of its amount or condition. The effective half-life of a given isotope on the body is the time in which the quantity in the body will decrease to half as a result of both radioactive decay and biological elimination. Half-lives vary from millionths of a second to billions of years.
Health Physics	The science concerned with recognition, evaluation, and control of health hazards from ionizing radiation.
Health Physics Professional	A person who has training and experience in the assigned position and has been designated by the Emergency Response Manager.
Health Physics Technician	An individual trained in radiation protection.

TERM	DEFINITIION
High Exposure Rate	An exposure rate greater than 2.5 milliroentgens per hour.
High Levels of Radiation Exposure	Doses of 100 rem of greater.
High-Level Waste	No longer useful materials from nuclear operations, which have radioactivity concentrations of hundreds to thousands of curies per gallon or cubic foot.
Host Area	A geographical area that is a least 5 miles, and preferably 10 miles, beyond the boundaries of the 10-mile plume pathway EPZ (15 – 20 miles from the commercial nuclear power plant) where functions such as congregate care, radiological monitoring, decontamination, and registration are conducted.
Host County	A county that lies outside the 10-mile emergency planning zone (EPZ) where residents evacuate to a reception center.
Host Regional Officer	The FEMA Regional Office that has program jurisdiction for a site because of the location of a commercial nuclear power plant within its regional borders.
Hostile Action	As defined in NRC Bulletin 2005-02, Emergency Preparedness and Response Actions for Security Based Events, a hostile action is "an act toward an NPP or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensees to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force."
Hot Spot	The region in a contaminated area in which the level of radioactive contamination is considerably greater than in neighboring regions.
Household Pet	A domesticated animal, such as a dog, cat, bird, rabbit, rodent, or turtle that is traditionally kept in the home for pleasure rather than for commercial purposes, can travel in commercial carriers, and be housed in temporary facilities. Household pets do not include reptiles (except turtles), amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes.
Implementing Procedures (IP)	"Operating" procedure used by personnel that provide a detailed description, including checklists, of the operations that are to be conducted by either a specific group of individuals or by a designated position. IPs are also referred to as "Standard Operating Procedures" (SOPs).

TERM	DEFINITIION
Inadequate	As used in reviews of radiological emergency response plans or procedures, inadequate means the plan contents do not meet the NUREG-0654/FEMA-REP-1 evaluation criteria.
Incident Command Post (ICP)	The location at which the primary command functions are executed, usually co-located with the incident base.
Incident Commander (IC)	The individual responsible for the management of all operations at a particular hazardous materials emergency.
Incident Command System (ICS)	The combination of facilities, equipment, personnel procedures, and communications operating within a common organizational structure with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident.
Ingestion Exercise	An exercise involving ingestion exposure pathway protective action decision-making and implementation. A State should fully participate in the ingestion pathway portion of exercises at least once every six years. In States with more than one site, the State should rotate this participation from site to site.
Ingestion Exposure Pathway (IEP) EPZ	A geographical zone with approximately 50 miles radius centered at a nuclear power station for which plans are developed to protect the public from exposure to radiation principally from the ingestion of water or foods such as milk and fresh vegetables that have been contaminated with radiation as a result of a nuclear power station accident. The duration of primary exposure could range from hours to months.
In-House Shelter	A protective action where the public is directed to go/stay indoors (in residential, commercial or public housing), close all doors and windows, turn off all sources of outside air, listen to the radio or television for emergency information, and remain indoors until official notification that it is safe to go out. Also see Sheltering.
Interim Storage	The temporary holding of wastes on the generator's site when disposal space is not available. Monitoring and human control are provided, and subsequent actions involving treatment, transportation, or final disposition is expected.

TERM	DEFINITIION
Internal Radiation	The nuclear radiation resulting from radioactive substances in the body. Some examples are iodine-131 found in the thyroid gland, and strontium-90 and plutonium found in bone.
Iodine (I)	An element of the periodic table. Only one stable isotope exists, the rest are radioactive and artificially created. The most common, iodine-131 and iodine-125, are used for medical treatment of the thyroid gland and in research.
Ion	[1]Atomic particle, atom, or chemical radical bearing an electrical charge, either negative or positive. [2]An atom or molecule with a negative or positive electrical charge.
Ionization	[1]"Simply the removal of one or more electrons from the atom." [2]"The separation of a normally electrically neutral atom or molecule into electrically charged components. The term is also employed to describe the degree or extent to which this separation occurs. Ionization is the removal of an electron (a negative charge) from an atom or molecule, either directly or indirectly, leaving a positively charged ion. The separated electron and ion are referred to as an ion pair." [3]"Removal of electrons from an atom, for example, by means of radiation, so that the atom becomes charged." [4]The process of adding or removing electrons from atoms or molecules, thereby creating ions. High temperatures, electrical discharges or nuclear radiation can cause ionization.
Ionizing Radiation	[1]"Any radiation that causes displacement of electrons from atoms or molecules, thereby producing ions." [2]"Radiation that has enough energy to remove electrons from substances it passes through, forming ions. [3]Any radiation that displaces electrons from atoms or molecules, thereby producing ions. Alpha, beta and gamma radiation are examples. Ionizing radiation may damage skin and tissue.
Inverse Square Law	The relationship which states that gamma radiation intensity is inversely proportional to the square of the distance from a point source. For example, if at one foot from a point source the dose rate is 500 milliR/h, backing up to 2 feet, reduces the dose rate to 250 milliR/h. Continuing to double the distance, now to four feet, reduces the dose rate to 125 milliR/h and at 8 feet the dose rate would be 62.5 milliR/h, and so on.
Irradiation	Exposure to ionizing radiation.

TERM	DEFINITIION
Isotope	[1]"One of two or more atoms with the same atomic number but with different numbers of neutrons." [2]"An atom of an element which contains the same number of protons and electrons, but which has additional neutrons. Sometimes isotopes are unstable and lose their "extra" neutrons. These isotopes are called radioactive isotopes." [3]Nuclides having the same number of protons in their nuclei and the same atomic number, but differing in the number of neutrons and atomic mass number. Some isotopes of a particular element may be radioactive while others are not.
Job Aid	A job-based reference tool that helps staff perform a task or any device (whether in written, mechanical, electronic, or other form) that can be used by a worker to facilitate the performance of a job or task. Job aids are often printed or visual summaries of key points or steps essential to the performance of a task.
Joint Information Center (JIC)	A centralized facility where organizations responding to an emergency coordinate the release of accurate and timely information to the public and the media and provide a central source for all instructions. A JIC is operated cooperatively by all responding levels of federal, state, and local governments and organizations, and the involved facility. A central point of contact for all news media at the scene of the incident. News media representatives are kept informed of activities and events via public information officials from all participating federal, state and local agencies.
Key Staff	Those emergency personnel , sufficient in numbers and functions, necessary to carry out emergency operations as required by scenario events and as set forth in the plans.
KI (Potassium Iodide)	See potassium iodide.
Kilo	A prefix that multiples a basic unit by 1,000. Example: 1 kilometer = 1,000 meters (10^3)
Kilovolt(kv)	The unit of electrical potential equal to 1,000 volts.
LD-50 or LD_{50} or LD^{50} Dose	The dose of radiation required to kill, within a specified period, 50 percent of the individuals in a large group of animals or organisms; e.g., LD-50/30, a lethal dose to 50 percent of the organisms in 30 days.
Lead Agency Official (LAO)	The designated official on scene from each participating Federal agency authorized to direct that agency's response.

TERM	DEFINITIION
Letter of Instruction	Letter(s) of Instruction are sets of instructions having the force of directives, covering those features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness. Also see Standard Operating Procedures (SOPs).
Licensed Material	Source material, special nuclear material, or by-product material received, possessed, used, or transferred under a general or special license issued by the NRC or a State.
Licensee	The utility or organization that has applied for or has received from the NRC, (1) a license to construct or operate a commercial nuclear power plant, (2) a possession-only license for a commercial nuclear power plant, with the exception of licensees that have receive an NRC-approved exemption to 10 CFR§ 50.54(q) requirements, (3) an early site permit for a commercial nuclear power plant, (4) a combined construction permit and operating license for a commercial nuclear power plant, or (5) any other NRC license that is now or may become subject to requirements for offsite radiological emergency planning and preparedness activities.
Licensee Offsite response Organization	The Licensee's offsite emergency response organization comprised of Licensee, State, local, and tribal government, volunteer and other support personnel required to implement the Licensee's radiological emergency response plan. Such an organization entity is typically employed for situations where State, local and tribal governments do not participate in radiological emergency planning and preparedness.
Limited Response	Response to a request for radiological assistance that involved limited DOE or other agency resources and does not require the formal field management structure.
Low-Level Waste	Wastes containing types and concentrations of radioactivity that require little or no shielding for personnel exposure.
Malaise	A vague feeling of physical discomfort or uneasiness, such as feeling bad before developing a definite illness.
Mass Number	The sum of the neutrons and protons in a nucleus. The mass number is the nearest whole number to an atom's atomic weight. For instance, the mass number of uranium-235 is 235. Symbol A.

TERM	DEFINITIION
Maximally Exposed Individual	A hypothetical individual who receives the greatest possible projected dose in the area of highest radiation levels over a specified period of time.
Maximum Permissible Body Burden	Maximum Permissible Body Burden (MPBB) is the maximum amount of specific radionuclide considered to produce no adverse health effects if deposited inside the body.
Measuring	Refers to counting to detect radiation levels or determining other parameters, such as the energy or radiation or physical characteristics of samples, such as the volume of an air sample.
Media Center	See Joint Information Center.
Medium Lethal Dose (LD-50)	The amount of radiation received over the whole body which would be fatal to about 50 percent of human beings, animals, or organisms. It is usually accepted that a dose of 400 to 450 R (roentgens) received over the whole body in the course of a few minutes represents the median lethal dose for human beings.
MET	The status of a REP exercise Evaluation Area Criterion indicating that the participating ORO demonstrated all demonstration criterion for the Evaluation Area Criterion to the level required in the extent-of-play agreement with no Deficiencies or ARCAs assessed in the current exercise and no unresolved prior ARCAs.
Meteorological Unified Dose Assessment Center (MUDAC)	An area within or near the facility which houses the personnel responsible for the coordination of radiological monitoring teams, collection of radiological monitoring data, calculation of dose projections and the recommendation of protective actions for the EPZs.
micro	A prefix that divides a basic unit by one million. It is represented by the Greek letter "mu" ("μ"). Example: 1 micrometer = 1μm=1/1,000,000 meters ($1X10^{-3m}$).
microcurie (μCi)	A one-thousandth part of a curie (see curie).
Milestone	A date at which a specified task in the preparation of an exercise report must be completed. Milestones are measured by the number of calendar days after the date of a REP exercise.

TERM	DEFINITIION
milli	A prefix that divides a basic unit by one thousand. It is represented by the Greek letter "m". Example: 1 millimeter=1mm=1/1,000 meters (10^{-3}m).
millicurie (mCi)	A one-thousandth part of a curie (see curie).
millierem (mrem)	A one-thousandth part of a rem (see rem).
milliroentgen (mR)	A one-thousandth part of a roentgen (see roentgen).
Mobile Emergency Response Support (MERS)	FEMA's communications capability.
Mobility impaired	Those without transportation, including those without their own cars, those who are unable to drive and those who need assistance, any of whom will need transportation assistance to evacuate.
Mobilized Organization	An organization that has completed the activation process and is able to carry out the essential emergency functions, as required by scenario events as set forth in emergency response plans.
Monitoring	The act of detecting the presence of radiation and the measurement of radiation levels, usually with a portable survey instrument. The use of sampling and detection equipment to determine the levels of radiation or other toxic materials.
Monitoring and Decontamination Facility	A temporary facility established outside the plume emergency planning zone for the purpose of monitoring and decontaminating emergency workers, and their vehicles and equipment used in the plume and/or areas contaminated by the plume.
MS-1 Hospital	Hospitals trained and capable of treating members of the general public who may be injured and/or considered to have substantial radiation related injuries, or who may have been exposed to and contaminated by radioactive materials.
nano	A prefix that divides a basic unit by one billion (10^{9}). It is represented by the Greek letter "n". Example: 1 nanocurie=1/1,000,000,000 Ci ($1X10^{-9}$Ci)

TERM	DEFINITIION
nanocurie (nCi)	One-billionth part of a curie (see curie)
Narrative	A body of text, prepared by the exercise evaluator, to accompany the Evaluation Area Criterion and describe in narrative form the events which transpired during the exercise and document the ORO's demonstration, identify and describe pertinent exercise issues (Deficiencies, ARCAs, or Plan Issues), and recommend appropriate corrective actions for each issue identified by the evaluator.
National Response Framework	Primarily pertains to federal response in support of state and local governments during emergencies under the National Incident Management System. The NRF: 1. Provides the federal government's concept of operations based on specific authorities for responding to radiological emergencies. 2. Outlines federal policies and planning assumptions that underlie the concept of operations on which federal agency response plans (in addition to their agency specific policies) are based. 3. Specifics authorities and responsibilities of each federal agency that may have a significant role in such emergencies.
Natural Radiation	Radiation that is always present in the environment from such sources as cosmic rays and radioactive materials in rocks and soils. Also known as background radiation.
Neutron	[1]"A particle that appears in the nucleus of all atoms except hydrogen. Neutrons are one of three basic particles that make up the atom. Neutrons have no electrical charge." [2]"An uncharged elementary particle with a mass slightly greater than that of the proton; found in the nucleus of every atom heavier than hydrogen. A free neutron is unstable and decays with a half-life of about 13 minutes into an electron, proton, and neutrino. Neutrons sustain fission chain reaction in a nuclear reactor. Shield for neutrons is usually large quantities of materials such as water, paraffin, or polyethylene."

TERM	DEFINITIION
National Incident Management System (NIMS)	The National Incident Management System (NIMS) is emergency management doctrine used across the United States to coordinate emergency preparedness and incident management and response among the public (Federal, Tribal, state, and local government agencies) and private sectors. NIMS is a comprehensive, national approach to incident management that is applicable at all jurisdictional levels and across functional disciplines. NIMS enables us to work together to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.
NOAA Weather Radio/Wire Service – National Oceanic Atmospheric Administration Weather Radio/Wire Service	A tone alert radio system/wire teletype system, operated by the National Weather Service (NWS) which may be used for dissemination of Special News Broadcast (SNB) messages by the NEMA in an emergency.
Noble Gases	The chemically inert radioactive gases that are released during an accident at a nuclear power plant.
Non-Participating Organization	State, local, and tribal governments that are not participating in emergency planning and preparedness for accidents at a commercial nuclear power plant.
Non-Penetrating Radiation	A general term used to describe external radiations of such low penetrating power that the absorbed dose from exposures to humans is principally in the skin and does not reach deeper organs to any significant extent. It refers to alpha, beta, and very low energy gamma or x-ray radiations.
Non-Stochastic Effects	Non-stochastic effects are effects that can be related directly to the radiation dose received. The effect is more severe with higher radiation dose, i.e. the burn gets worse as the dose increases. It typically has a threshold, below which the effect will not occur. A skin burn from radiation is a non-stochastic effect.

TERM	DEFINITIION
Not Demonstrated	Term applied to the status of a REP exercise Evaluation Criterion indicating that the ORO, for a justifiable reason, did not demonstrate the Evaluation Area Criterion, as required in the extent-of-play agreement or at the two-year or six-year interval required in the FEMA REP Program Manual. In general , an ORO may justify not demonstrating an Evaluation Criterion because of (1) the ORO's response to a real-life emergency during the time that the exercise was being conducted or (2) extenuating circumstances, such as a fire, flood, or other emergency, as the facility that was to be demonstrated.
Notification of Unusual Event	A Notice of Unusual Event (NOUE) is an event in progress or that has occurred which indicates a potential degradation of the level of safety of the plant. No release of radioactive material is expected unless further degradation of plant safety systems occurs.
Notification and Mobilization of Personnel	The transmission of messages to emergency personnel informing them of an emergency situation and directing them to report for emergency duty at their assigned duty station.
Notifying the Public	Distributing an instructional message, either through the Emergency Broadcast System or some other system.
Nuclear Criticality	The point at which nuclear material achieves a self-sustaining chain reaction.
Nuclear Fuel Cycle	The complete process or cycle of nuclear activities, which include mining, milling, conversion, enrichment, fuel fabrication, nuclear power station operations, spent fuel storage, reprocessing, and waste management operations.
Nuclear Power Station	A fixed nuclear facility/electric power generating plant that used nuclear material as the primary fuel to power a nuclear reactor.
Nuclear Radiation	The particulate and electromagnetic radiation emitted from atomic nuclei in various nuclear processes. The important types of nuclear radiation (from the weapons standpoint) are alpha and beta particles, gamma rays and neutrons. All nuclear radiations are ionizing radiations, but the reverse is not true.
Nuclear Reactor	An apparatus, other than an atomic weapon, designed or used to sustain nuclear fission in a self-sustaining chain reaction.

TERM	DEFINITIION
Nuclear Regulatory Commission (NRC)	The NRC is the federal agency responsible for regulating commercial nuclear power stations and other commercial nuclear operations pursuant to the Atomic Energy Act of 1954, as amended.
Nucleus	The dense central positive part of the core of an atom that contains protons, neutrons, and other particles. It is only 1/100,000 diameter of the atom but contains nearly all the atom's mass. All nuclei contain both protons and neutrons, except the nucleus of ordinary hydrogen, which consists of a single proton.
Nuclide	[1]A general term applicable to all atomic forms of the elements. The term is often erroneously used as a synonym for "isotope", which properly has more limited definition. Whereas isotopes are various forms of a single element (hence, a family of nuclides and all have the same atomic members). Nuclides comprise all the isotopic forms of all the elements. [2]A general term referring to all known isotopes, both stable (279) and unstable (5,000), of the chemical elements.
Objective	One of the 33 areas of ORO capability that are evaluated during a REP exercise and which are defined the REP Manual.
Off-Hours	The hours between 6:00 P.M. and 4:00 A.M. or any weekend hours.
Off-Site	[1]"That area or property surrounding a nuclear power station that is not owned by the nuclear power station or its parent company." [2]" That area beyond the boundaries of the site."
Offsite Response Organization (ORO)	Any State, local, and/or tribal government; supporting private industry and voluntary organization; and Licensee offsite response organization (that are formed when State, local and/or tribal governments fail to participate in the REP Program) that are responsible for carrying out emergency functions during a radiological emergency.
On-Scene	[1]The area surrounding an accident site that is, or potentially could be, affected by the accident or incident. This area could both be on-site and off-site. [2]The area surrounding a site that is, or potentially could be, impacted by an incident. This area includes both onsite and offsite areas.
On-Site Personnel	Licensee or contract personnel working at commercial nuclear power plants.

TERM	DEFINITIION
Operational	The EOC/EOF/JIC/Assistance Center/Emergency Worker Center/Laboratories, etc., are considered "Operational" when all key decision makers are at their duty stations and capable of performing all emergency functions assigned to that facility.
Operationally Mobilized Organization	An organization that has completed the activation process required by scenario events and their emergency response plan and procedures. Operational mobilization is achieved when all key personnel are at their duty stations.
Particulate Radiation	Radiation in the form of particles (e.g., neutrons, electrons, alpha, and beta particles) as opposed to electromagnetic radiation.
Permissible Exposure Limit	The exposure, inhalation or dermal permissible exposure limit specified in 29 CFR 1920, subparts G and Z.
Petechia	A round, purplish red spot caused by bleeding under the skin.
pico	A prefix that divides a basic unit by one trillion (10^{-12}). It is represented by the letter "p". Example: 1 picocurie=1/1,000,000,000,000 Ci ($1X10^{-12}$Ci)
picocurie (pCi)	One-trillionth part of a curie (see curie).
Plan	An organization's documented concept of operations and implementing procedures for managing its internal response to radiological emergencies and coordinating its external response with other organizations.
Planning Area	A pre-designated geographic subdivision of the plume exposure pathway EPZ. In some plans, it may be referred to as an Emergency Response Planning Area or an equivalent term.
Plan Issue	An observed or identified inadequacy in the ORO's emergency plan or implementing procedures, rather than in the ORO's performance. Plan issues are not exercise issues and are required to be corrected through the revision of the appropriate plans or procedures during the next annual plan review and update, submitted for FEMA review, and reported in the State's Annual Letter of Certification.

TERM	DEFINITIION
Plume	Airborne material spreading from a particular source. Used to denote the dispersal of particles, gases, vapors, and aerosols in the atmosphere. Occasionally referred to as a cloud (for example, a "radioactive cloud"). A release of material into the atmosphere for a short duration may also be denoted as a "puff". Can be measured or "seen" with radiation measurement equipment.
Plume Dose Projections	Estimates of dosage to the public from exposure to the plume, over a period of time, in the absence of initiating protective actions.
Plume Exposure Pathway	The time of potential exposure could range in length from hours to days. Principal exposure sources are: a. Whole body external exposure to gamma radiation from the plume and from deposited materials. b. Inhalation and absorption of constituents in the passing radioactive plume.
	For planning purposes, the area within approximately a 10-mile radius of a nuclear power plant site. A term describing the means by which whole body radiation exposures occur as a result of immersion in a plume release. The area in which plume exposures are likely is describe in NUREG-0369 as an area extending out approximately 10 miles from the reactor site and forming roughly a "keyhole" shape, with the keyhole oriented downwind. In the EPZ-plume, actions may be required to protect the public from the effects of whole-body external exposure to gamma radiation from the plume and protect the public from the effects of whole-body external exposure to gamma radiation from the plume and from deposited materials and inhalation exposure from the passing radioactive plume's released materials. The duration of this exposure in this mode could range from hours to days in the case of particulate deposition.
Plume Exposure Pathway Emergency Planning Zone (EPZ)	A geographic area, zero to approximately 10 miles, surrounding a commercial nuclear power plant in which the health and safety of the general public could be adversely affected by direct whole body external exposure to gamma radiation from deposited materials as well as inhalation exposure from the passing radioactive plume during a radiological accident. The duration of such exposures could range in length from hours to days.

TERM	DEFINITIION
Plutonium (Pu)	An element of the periodic table that is an artificially-produced fissile material. The Pu-239 isotope is used primarily in nuclear weapons.
Population Dose Projection	Projection made by a Federal agency under the Federal Response Framework pertaining to the levels of radiation to which the population within the EPZ will be exposed.
Plutonium (Pu)	An element of the periodic table that is an artificially-produced fissile material. The Pu-239 isotope is used primarily in nuclear weapons.
Portal Monitor	A radiation monitor consisting of several radiation detectors arranged in a fixed position within a frame that forms a passageway for individuals being monitored.
Post Plume	Activities (ingestion, relocation, re-entry, and return) that occur after a plume has been released. These activities can be demonstrated with the plume phase or separately.
Potassium-40 (K-40)	A naturally occurring radioactive isotope of potassium, which is an element of the periodic table. It is a beta and gamma emitter and has an exceedingly long half-life. The average person receives about 20 millirems a year from K-40 in his/her body.
Potassium Iodide (KI)	A prophylactic compound commonly referred to as a radioprotective drug containing a stable (i.e., non-radioactive) form of iodide that can be used effectively to block the uptake of radioactive iodine by the thyroid gland in a human being. Thyroid blocking agent that may be used in radiological events involving releases of radioiodine-131.
Potential Dose	The Radiation dose that could result from a particular set of plant conditions that are not based on estimated or measured releases or environmental levels.
Precautionary Protective Actions	Any preventive or emergency protective actions implemented without the verification of radionuclide measurements by field monitoring or laboratory analysis.
Pressure Vessel	A strong-walled container housing the core of most types of power reactors.

TERM	DEFINITIION
Pressurized Water Reactor	A nuclear reactor in which heat is transferred from the core to a heat exchanger via water kept under high pressure so that high temperatures can be maintained in the primary system without boiling the water. Steam is generated in a secondary circuit. Fort Calhoun Nuclear Station is a pressurized water reactor.
Preventive Protective Actions	Protective actions to prevent or reduce contamination of milk, food, and drinking water. Other preventive protective actions are washing, brushing, scrubbing, or peeling fruits and vegetables to remove surface contamination.
Price-Anderson Act	The legislation outlines the methods for compensating nuclear power stations or nuclear transportation accident victims. Passed as Subsection 170 of the Atomic Energy Act of 1954, the Price-Anderson Act established a system in which a combination of government guarantees and private insurance coverage would pay claims for personal injury and property damage caused by nuclear accidents. The legislation limits the liability any one utility must sustain by requiring all nuclear utilities (nuclear power stations) to assist in damage payments should an accident occur.
Principal Federal Offical (PFO)	Pursuant to the Homeland Security Act of 2002 and Homeland Security Presidential Directive (HSPD) 5, the Secretary of Homeland Security is the principal Federal official for all domestic incidents requiring multiagency federal response. The Secretary may elect to designate a single individual to serve as his or her primary representative to ensure consistency of Federal support as well as the overall effectiveness of the Federal incident management. When appointed, such an individual serves in the field as the PFO for the incident.
Projected Dose	The estimated or calculated amount of radiation dose to an individual from exposure to the plume and/or deposited materials, over a period of time, in the absence of protective action.
Protective Action	Physical measures, such as evacuation or sheltering, taken to prevent potential health hazards resulting from a release of hazardous materials to the environment adversely affecting employees and/or the off-site population. See Protective Response.

TERM	DEFINITIION
Protective Action Decision (PAD)	Measures taken in anticipation of, or in response to, a release of radioactive material to the environment. The purpose of PAs is to provide dose savings by avoiding or minimizing the radiation exposure received by individuals, thereby minimizing the health risks resulting from radiation exposure. Sheltering and evacuation are the two PAs that are relied upon for limiting the direct exposure of the general public within the plume exposure EPZ. Preventive and emergency PAs are two categories of PAs that will be relied upon for limiting exposure from contaminated food and water in the ingestion exposure EPZ.
Protective Action Guide (PAG) Protective Action Guide (PAG) Cont'd.	[1]A radiation exposure level or range established by appropriate federal or state agencies beyond which protective action should be considered. PAG values should reflect a balance of risks and costs to on-site personnel, public health and safety, and the environment weighted against the benefits obtained from protective actions. PAGs are the tools used as decision aids during the response to an radiological incident. [2]Projected dose to an individual in the general population that warrants the implementation of protective actions. Specific PAGs (FDA and EPA) have been recommended in terms of the level of projected dose that warrants the implementation of evacuation and sheltering, relocation, and limiting use of contaminated food, water, or animal feed.
Protective Action Recommendation (PAR	Advice to the State on emergency measures it should consider in determining action for the public to take to avoid or reduce their exposure to radiation.
Protective Response	Implementation of a protective action.
Proton	An elementary particle with a single positive electrical charge and a mass of approximately 1837 times that of the electron. Protons are constituents of all nuclei. The atomic number (Z) of an atom is equal to the number of protons in its nucleus.
Public Assembly Area	Pre-designated locations within the EPZ where persons needing transportation will assemble.
Public Education	A planned program which is designed to inform the public of protective actions they may be required to accomplish during a given state of emergency. This program also familiarizes the public with the basic REP terms and concepts.

TERM	DEFINITIION
Public Information Officer	Appointed official spokesperson for either a government or private entity.
Public Information	Information delivered to the media via press conferences, interviews, technical briefings, printed media releases, and telephonic distribution of printed releases. Information should be current, accurate, and timely. All printed release should be coordinated with other authorities before distribution to the media. Ideally, information released in news conferences, briefings, and interviews should be coordinated before release. If pre-coordination does not occur, then post-notification of other authorities of critical points discussed in interviews, conferences, etc., should occur.
Public Instruction	Instructions (warning messages) that are PARs for the public. Instructions should be given by a public official and delivered directly to the public via the notification system (i.e., EAS radio). Message content and timeliness are very important. Messages should be repeated by Notification system at least every 15 minutes until updated by public authorities. If applicable, public instructions should be coordinated with other authorities.
Public Inquiry (Formerly Rumor Control)	Describe actions taken to combat or otherwise correct wrong or misunderstood information. It includes monitoring many types of media sources, the public and field government officials. Feedback developed through monitoring results in specific news releases, etc., directed against the rumors. The objective is to direct the public to authorized sources of information. This definition was formerly attributed to "Rumor Control" but was changed under the National Incident Command System.
Public Transportation	Any transportation, government or privately owned, arranged for by local government and provided to the general public to move them to reception areas and/or reception centers. Public transportation would generally be designated for institutionalized persons and those without private vehicles.
Purpura	Bleeding under the skin. Symptom of acute radiation sickness.

TERM	DEFINITIION
RAC AC	Is the Regional Assistance Committee Advisory Council. Chairpersons from each of the 10 FEMA Regional Radiological Assistance Committees work with FEMA headquarters staff to ensure continuity throughout the Regions in the administration of the REP Program. When the council was chartered in 1997 it was per the Kay C. Goss, Associate Director for Preparedness, Training and Exercises memorandum dated February 25, 1997, addressed to FEMA Regional Administrators. That memorandum stated the following: "As you know, the RAC Chairperson Advisory Committee was established as an outgrowth of the first National Radiological Emergency Preparedness (REP) Conference held in Gettysburg, PA, 29 July – 2 August 1996. The committee is a standing Regional committee to discuss mutual program issues of substantive concern and provide consensus recommendation(s) to the PT&E Directorate. As a corollary responsibility, the Committee will provide technical expertise to the Federal Radiological Coordinating Committee (FRPCC), as appropriate."
R.A.C.E.S.	Radio Amateur Civil Emergency Service (HAM Radio Operators)
rad	[1]"Radiation absorbed dose, a measurement of ionizing radiation absorbed any material. A rad measures the absorption of a specific amount of work (100 ergs) in a gram of matter." [2]"Unit of absorbed does. On rad is equal to an absorbed dose of 100 ergs per gram or 0.01 joules per kilogram (0.01 gray)." [3]"Radiation absorbed dose. A (rad) is the unit absorbed dose. The rad is a measure of the energy imparted to matter by ionizing particles per unit mass of irradiated material at the place of interest. A rad is approximately equal to the absorbed dose in tissue when the expsorue in air is one roentgen (R) of medium-voltage x-radiation." [4]radiation absorbed dose, the basic unit of absorbed dose radiation. One rad represents the absorption of 100 ergs of nuclear (or ionizing) radiation per gram of the absorbing material or tissue (see roentgen).
Radiation	[1]"Fast particles and electromagnetic waves emitted from the nucleus of an atom during radioactive disintegration." [2]"The energy propagated through space or through material medium such as waves; for example, energy in the form of electromagnetic waves or of elastic waves. Radiation, or radiant energy, when unqualified, usually refers to electromagnetic radiation, such as radiation commonly is classified according to frequency, as Hetzian, infrared, visible (light), ultraviolet, x-ray and gamma ray. Also, particles such as alpha and beta radiation, or rays of mixed or unknown type – for instance cosmic rays can be called radiation."

<table>
<tr><th>TERM</th><th>DEFINITIION</th></tr>
<tr><td>Radiation Accident</td><td>An accident in which there is an unintended exposure to ionizing radiation or radioactive contamination.</td></tr>
<tr><td>Radiation Level</td><td>The radiation dose-equivalent rate expressed in millirem/per hour (mrem/h).</td></tr>
<tr><td>Radiation Safety Officer</td><td>A health physicist or other individual experienced in radiation protection who advises medical facility staff regarding the hazards associated with high levels of radiation.</td></tr>
<tr><td>Radiation Sickness Radiation Sickness</td><td>1The prodromal manifestations of acute radiation injury, varying in severity, scope, and cause, depending on the conditions of exposure to ionizing radiation. 2the complex of symptoms characterizing the disease known as radiation injury, resulting from excessive exposure of the whole body (or large part) to ionizing radiation. The earliest of these symptoms are nausea, fatigue, vomiting, and diarrhea, which may be followed by loss of hair (Epilation) hemorrhage, inflammation of the mouth and throat, and general loss of energy. In severe cases, where the radiation exposure has been relatively large, death may occur within 2 to 4 weeks. Those who survive 6 weeks after the receipt of a single large dose of radiation may generally be expected to recover.

Probable Early Effects of Acute Radiation

<table>
<tr><th>Accute Doses</th><th>Probable Effects</th></tr>
<tr><td>0 to 25 R (roentgens)</td><td>No obvious injury</td></tr>
<tr><td>25 to 50 R</td><td>Possible blood changes, but no serious injury</td></tr>
<tr><td>50 to 100 R</td><td>Blood-cell changes, some injury, no disability</td></tr>
<tr><td>100 to 200 R</td><td>Injury, possible disability</td></tr>
<tr><td>200 to 400 R</td><td>Injury, and disability certain, death possible</td></tr>
<tr><td>400 R</td><td>Fatal to 50%</td></tr>
<tr><td>600 R</td><td>Fatal</td></tr>
</table>
</td></tr>
<tr><td>Radiation Emergency Assistance Center/Training Site (REAC/TC)</td><td>A multi-purpose medical facility located in Oak Ridge, TN, prepared to deal with all types of radiation exposure emergencies and provide medical and health physics advice and assistance in radiological emergencies.</td></tr>
</table>

TERM	DEFINITIION
Radioactive	Giving off, or capable of giving off, radiant energy in the form of particles (alpha or beta radiation) or rays (gamma radiation) by the spontaneous disintegration of the nuclei of atoms. Radioisotopes of elements lose particles and energy through the process of radioactive decay. Elements may decay into different atoms or different state of the same atom.
Radioactive Decay	The decrease in radiation intensity of any radioactive material with respect to time.
Radioactive Material	Any material having a specific activity greater than 0.002 micro-curies per gram (µCi/g) [49 CFR 173.403].
Radioactivity	1The spontaneous emission of radiation, generally alpha or beta particles often accompanied by gamma rays, from the nucleus of an unstable atom. As a result of this emission, the radioactive atom is converted, or decays, into an atom of a different element that might or might not be radioactive. Ultimately, as a result of one or more stages of radioactive decay, a stable, non-radioactive atom is formed. [1]The spontaneous emission of radiation, generally alpha or beta particles often accompanied by gamma rays, from the nucleus of an unstable atom. As a result of this emission, the radioactive atom is converted, or decays, into an atom of a different element that might or might not be radioactive. Ultimately, as a result of one or more stages of radioactive decay, a stable, non-radioactive atom is formed. [2]The spontaneous decay or disintegration of an unstable atomic nucleus, usually accompanied by the emission of ionizing radiation, generally alpha or beta particles, often accompanied by gamma rays from the nuclei of an unstable isotope.
Radioisotope	An unstable isotope of an element that decays or disintegrates spontaneously, emitting radiation. Approximately 5000 natural and artificial radioisotopes have been identified.
Radiological Assistance Program (RAP) Team	[1]A team dispatched to the site of a radiological incident by the DOE Regional Office responding to the incident. [2]A DOE program which provides for radiological assistance to federal, state, local and major NRC licensees in the event of an incident involving radioactive materials. The program has experienced DOE and/or DOE contractor professionals who are adequately equipped to conduct off-site radiological emergency monitoring. RAP teams are located in each DOE region and headquartered out of the DOE national laboratories. The DOE Region V RAP team that supports Nebraska located at the Argonne National Laboratory outside Chicago, IL.

TERM	DEFINITIION
Radiological Emergency	A type of radiological incident that poses an actual or potential hazard to public health or safety or loss of property.
Radiological Emergency Area	An area established either on an ad hoc basis or pre-identified in a medical facility for monitoring, decontamination, and treatment of contaminated injured individuals, and for contamination control.
Radiological Monitoring	The use of detection equipment to determine the levels of radiation or the presence and concentration of radioactive contamination to include the planning and data collection necessary to the task.
Radiological Emergency Preparedness (REP) Program	The FEMA program that administers emergency preparedness for all commercial nuclear sites.
Radiological Emergency Response Plan	A detailed plan which coordinates and describes the emergency response organizations, responsibilities, and capabilities of utilities, local or State governments, and private organizations to ensure public health and safety during an emergency situation in which there is a potential for radiological release.
Radiological Emergency Response Team	A team located near the affected area that coordinates all field teams and sampling activities.
Radiological Survey	The directed effort to determine the distribution of radiological material and dose rates in an area.
Radiology	That branch of medicine dealing with the diagnostic and therapeutic applications of radiant energy, including x-rays and radioisotopes.
Radionuclide	A radioactive isotope of a particular element.
Range Reading Sticker	Indicates the acceptable range of readings that the meters should indicate when it is response checked using a standard test source. If the response check results in readings that fall outside of the range specified on the sticker, the instrument should be removed from service and not be used for recording activity levels.

TERM	DEFINITIION
Reception Area	An area located at least five miles outside the 10-mile EPZ consisting of one or more congregate care facilities which would provide for the housing and feeding of evacuees. Reception areas are designated for each nuclear power station and can accommodate the entire risk population of the 10-mile EPZ. See Reception Center and Registration Center.
Reception Center	A pre-designed facility located outside the plume exposure pathway EPZ (at a minimum 15 miles from the nuclear power plant) at which the evacuated public can register; receive radiation monitoring and decontamination; receive assistance in contacting others; receive directions to congregate care centers; reunite with others; and receive general information. It generally refers to a facility where monitoring, decontamination, and registration of evacuees are conducted. An RC is also referred to as a relocation center, registration center, or public registration and decontamination center. See Reception Area and Registration Center.
Registration Center	A single facility located in each reception area that provides for registration of evacuees. Assignments to congregate care space and feeding facilities will be made at the registration center. See Reception Area and Reception Center.
Recovery	Actions taken after a nuclear power station (plant/facility) has been brought to a stable or shutdown condition to return the nuclear power station (plant/facility) to normal operations and/or assist personnel, material and the environment to return to pre-accident conditions as best as possible.
Recovery Plan	A plan developed by the State to restore the affected area with Federal assistance if needed.
Recovery Worker	An individual who is permitted to enter the restricted zone under controlled conditions to perform work or to retrieve valuable property.
Re-entry	[1]Temporary entry into a restricted zone under controlled conditions. [2]The provisions for the return of the public after evacuation, when the radiation risk has been reduced to acceptable levels.

TERM	DEFINITIION
Re-entry Recommendation	Advice provided to the State by the CFA in conjunction with the SFO and appropriate Federal departments and agencies concerning State and local government guidance or recommendations that may be issued to the public for returning to an area affected by a radiological emergency.
Regional Office Support Team (ROST)	A FEMA regional team that supports the ERT. The ROST facilitates deployment of the ERT; interfaces with the EST at FEMA headquarters, with other regional departments or agencies, and with State and local agencies and organizations during deployment; provides regional support during deployment; and assists with recall of the ERT.
Regional Radiological Assistance Committee (RAC)	A committee of representatives from a number of Federal agencies which have agreed to assist the FEMA Region in providing technical assistance to State, local and tribal governments and to evaluate radiological emergency response plans and exercises on the basis of their special authorities, missions and expertise (see "RAC AC").
Regional Response Force (RRF)	Force identified in the Nuclear Accident Response Capabilities Listing (NARCL) (at JNACC) belonging to DoD or DOE installation, facilities, or activities within the U.S. and its territories. The RRF may be tasked with taking emergency response actions necessary to maintain command and control on-site pending arrival of the Service or Agency Response Force (SRF). Function which the RRF may be tasked with, within their capabilities, are (1) rescue operations; (2) accident site security; (3) firefighting; (4) initial weapons emergency safing; (5) radiological monitoring; (6) establishing command, control, and communications; and (7) public affairs activities.
Release	[1]Means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant) including radiation. [2]Escape of radioactive materials into the environment.
Relocation	The removal or continued exclusion of people (households) from contaminated areas to avoid chronic radiation exposure.
Relocation Center	Generally refers to a facility where monitoring, decontamination, registration, and congregate care of evacuees are conducted. Relocation centers are also referred to as "congregate care centers."

TERM	DEFINITIION
Relocation PAG	Protective action guide which requires relocation from a contaminated area to avoid chronic radiation exposure.
Rem	Acronym for Roentgen equivalent man. The unit of dose of any ionizing radiation that produces the same biological effects as a unit of absorbed dose of ordinary x-rays. A unit of dose for measuring the amount of ionizing radiation energy absorbed in biological tissue.
Remedial Exercise	This exercise tests deficiencies found during a previous full-scale exercise that are significant enough to impact the public health and safety. It is conducted within 120 days after the biennial REP exercise for the purpose of demonstrating remedial actions to correct one or more deficiencies.
Residual Contamination	Contamination that remains after steps have been taken to remove it. These steps may consist of nothing more than allowing the contamination to decay naturally.
Responsible Offsite Response Organization (ORO)	An organization designated in an emergency response plan as the organization responsible for a specific emergency function.
Responsible School Official	The School Official participating in an exercise or drill, who is responsible for implementing school emergency procedures according to the plan.
Restricted Zone	An area of controlled access from which the population has been evacuated, relocated, or sheltered-in-place.
Return	The process of reoccupying areas cleared for unrestricted residence or use by previously evacuated or relocated populations.
Risk County	An entire or partial county that lies within the 10-mile emergency planning zone (EPZ) where residents must evacuate to a host county.

TERM	DEFINITIION
Roentgen	[1]The unit of exposure from x- or gamma radiation. The roentgen is a unit used to measure a quantity called exposure. This can only be used to describe an amount of gamma or x-ray, and only in air. One roentgen is equal to 2.58×10^{-4} coulombs per kg of dry air. It is a measure of the ionizations of the molecules in a mass of air. The main advantage of this unit is that it is easy to measure directly, but it is limited because it is only for deposition in air, and only for gamma and x-rays. [2]A unit of exposure of gamma (or X-ray) radiation in field dosimetry. One roentgen is essentially equal to one rad (see "rad"). A unit for measuring the amount of radiation energy imparted to a volume of air. The roentgen can be used only to measure X-rays or gamma rays.
Roentgen Equivalent Man (rem)	[1]The REM is a unit of radiation dose equivalent. The dose equivalent in REMs is numerically equal to the absorbed dose multiplied by the quality factor (Q), the distribution factor, and the necessary modifying factors. The unit is used in radiation protection to measure the amount of damage to human tissue from a dose of ionizing radiation. Incorporates health risks form radiation. The scientific metric equal is the sievert (Sv). [2]The REM is the quantity of ionizing radiation of any type which, when absorbed by man or other mammals, produces a physiological effect equivalent to that produced by the absorption of 1 roentgen of X-ray or gamma radiation.
Rumor	[1]Common talk or opinions which are widely disseminated not necessarily having a discernable foundation or source. Also may be an unconfirmed piece of information or explanation disseminated among the public by other than formal news agencies or official sources. [2]Information circulated by individuals and organizations during an emergency that may or may not be true. (Usually, rumors originate and are spread on an ad hoc, not official basis.)
Rumor Control	A term formerly used to describe actions taken to combat or otherwise correct wrong or misunderstood information. It includes monitoring many types of media sources, the public and field government officials. Feedback developed through monitoring results in specific news releases, etc., directed against the rumors. The objective is to direct the public to authorized sources of information. This definition is now used for "Public Inquiry".

TERM	DEFINITIION
Safeguards Information	Information which specifically identifies measures taken for the physical protection of special nuclear material (spent nuclear fuel and high-level waste), or measures taken for the physical protection of equipment vital to the safety of operations at fixed sites and in transit. Safeguards information includes: the transportation physical security plan; schedules and itineraries for specific shipments; details of vehicle immobilization features, intrusion alarm devices, and communications systems; arrangements with, and capabilities of local police response forces; locations of safe havens; details regarding limitations or radio-telephone communications; and procedures for response to safeguards emergencies.
Safeguards System	An integrated system of physical protection, material accountability, and material control measures that have capabilities for the protection of spent nuclear fuel and high-level waste at fixed sites and in-transit.
Sampling	The collection of specimens of material such as particles or radioiodine in the air, animal feed, vegetation, water soil, milk crops, feed, plants, and weeds as well as testing of animals in field locations for radiological contamination.
Scenarios	Time-based simulations of emergency events postulated to allow the demonstration of response capabilities.
Schools	In the context of the REP program, schools include public and private schools, kindergartens, and all licensed day care centers and homes with more than 10 children.
SCRAM (Safety Control Rod Axe Man)	The sudden shut down of a nuclear reactor, usually by rapid insertion of the control rods. Emergencies or deviations from normal reactor operations cause the reactor to automatically scram.
Senior FEMA Official (SFO)	Official appointed by the Administrator of FEMA, or his representative, to direct the FEMA response a the scene of a radiological emergency.
Service Animal	Any guide, signal dog, or other animal individually trained to provide assistance to an individual with a disability including, but not limited to, guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheel chair, or fetching dropped items.

TERM	DEFINITIION
Shadow Evacuation	The self-evacuation by the public who are not be in the affected hazard area, but fear the potential danger or hazard.
Sheltering	An in-place, immediate protective action which calls for people to go indoors, close all doors and windows, turn off all sources of outside air, listen to the radio or television for emergency information, and remain indoors until official notification that it is safe to go out.
Shelter-In-Place	A protective action that includes going indoors, listening to an EAS radio or television station, closing all windows and doors, closing exterior vents, and turning off heating and air conditioning equipment using outside air.
Shield	Material used to reduce or stop radiation.
Sievert	The sievert (Sv) is a metric unit used to derive a quantity called equivalent dose. This relates the absorbed dose in human tissue to the effective biological damage of the radiation. No all radiation ahs the same biological effect, even for the same amount of absorbed dose. Equivalent dose is often expressed in terms of millionths of a sievert, or mirco-sievert. To determine the equivalent dose (Sv), you multiply absorbed dose (Gy) by a quantity factor (Q) that is unique to the type of the incident radiation. One sievert is equal to 100 REM.
Site	Refers to the location at which there is a commercial nuclear power station. A nuclear power station is synonymous with a nuclear power plant and nuclear power facility. Also see "On-Site".
Site Area Emergency (SAE)	A site area emergency (SAE) is one of the classes of emergency in the operational and energy categories. Within the context of an operational emergency, a SAE represents events which are in progress or have occurred involving actual or likely major failure(s) of facility safety or safeguards systems needed for the protection of on-site personnel, the public health and safety, the environment, or national security. Any environmental releases of hazardous materials are not expected to exceed the appropriate Protective Action Guide (PAG) off-site.

TERM	DEFINITIION
Somatic Effect	Effects of radiation seen in an individual and limited to that exposed individual who received the exposure, as distinguished from genetic effects, which also affect subsequent, unexposed generations.
Source Term	The amount of radioactive material available for release.
Special Facility	Includes schools, day care centers, hospitals, nursing homes, certain types of industrial plants that may require a lengthy shut-down period, etc. within the plume EPZ that need to be considered separately from the general population when planning for an incident or accident at a nuclear power plant.
Special News Broadcasts (SNB)	Information concerning individual actions which will be made available to affected residents and transients in an emergency to ensure public safety.
Special Nuclear Material	By law, includes plutonium, uranium-233, and uranium containing more than the natural concentration of uranium-235.
Special Populations	Groups and/or individuals with physical or mental handicaps that need assistance when protective actions are implemented.
Spent Fuel	Nuclear reactor fuel that has been irradiated to the extent that it can no longer effectively sustain a chain reaction.
Spent Fuel Assemblies	Nuclear fuel is fabricated into small pellets. These pellets are encased into strong cylindrical rods. AN assembly is a group of these rods fastened together. Referred to as a "bundle" for some boiling water reactors.
Spent Fuel Storage Pool	A water filled basin used by reactors for the temporary or interim storage of spent fuel before it is transported for reprocessing, disposal or other temporary/interim storage.
Spent Nuclear Fuel	Spent nuclear fuel (SNF) is fuel that has been withdrawn form a nuclear reactor following irradiation, the constituent elements of which have not separated by reprocessing. SNF includes (1) intact, non-defective fuel assemblies; (2) failed fuel assemblies in canisters; (3) fuel assemblies in canisters; (4) consolidated fuel rods in canisters; (5) non-fuel components inserted in pressurized water reactor fuel assemblies; (6) fuel channels attached to boiling water reactor fuel assemblies; and (7) non-fuel components and structural parts of assemblies in canisters.

TERM	DEFINITIION
Stable Isotope	An isotope of an element that is not radioactive.
Standard Exercise Report Format	The document which defines or describes the structured format to be used in preparing REP Program Biennial exercise reports, the contents of each section of the report, and basic guidance on the preparation of REP Program Exercise Reports.
Standard Operating Procedures	Standard operating procedures (SOP) are sets of instructions having the force of directives, covering those features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness.
State Coordinating Officer (SCO)	An official designated by the Governor of an affected State to work with the Cognizant Federal Agency Official and Senior FEMA Official in coordinating the response efforts of Federal, State, local, volunteer, and private agencies.
State EOF Liaison Field Team	An emergency state government field direction and control activity deployed in support of a radiological incident normally to the nuclear power station EOF. Field activities of this element will be coordinated by the Governor's Authorized Representative (GAR). Appropriate state agency liaison and public information personnel will be located at/near this facility. Communications contact will be maintained with the SEOC and local government. The EOF complex is also able to support short-range radio communications for key state agency personnel operating out of the EOF.
State Emergency Operations Center (SEOC)	The SEOC is a protected location and a function of the Nebraska Emergency Management Agency where state level Direction, Control, and Warning functions essential to emergency preparedness and response operations are accomplished. It provides support to other state agencies and local governments and serves as an operational link between the local EOCs and the nuclear power station EOF. See "Emergency Operations Center" for additional information.
State Radiation Response Team/ Radiological Monitoring Team	A radiological response team of health physics professionals dispatched to the affected nuclear power station's EOF and areas surrounding the nuclear power station by the Nebraska Department of Health and Human Services, Division of Public Health (DHHS, DPH). This team or teams may be augmented by other states health physics professionals, local hazardous materials teams, local emergency management agencies' radiological monitoring resources and federal resources to include aerial monitoring if requested.

TERM	DEFINITIION
State Radiation Response Team/ Radiological Monitoring Team Cont'd.	During an incident, all radiation control capabilities are coordinated by the DHHS, DPH Response Team Emergency Manager who may also furnish technical guidance and other services to local governments.
Stochastic Effects	Stochastic effects are effects that occur on a random basis with its effect being independent of the size of the dose. The effect typically has no threshold and is based on probabilities, with the chances of seeing the effect increasing with dose. Cancer is a stochastic effect.
Strontium	A high-energy beta source that can be used as an energy source for satellites, remote weather stations and navigation buoys. Four naturally stable and 12 unstable isotopes of strontium exist. The most common unstable isotope is strontium-90, a product of nuclear fallout that has a half-life of 28 years.
Substantial	That the final decision as to whether or not a change is substantially negative and agreed upon by the ORO and FEMA Region.
Survey Meter	A portable instrument used for radiological monitoring to detect and measure ionizing radiation under varied physical conditions. The term covers a wide range of devices.
Teratogenic Effects	Teratogenic effects are those effects from some agent like radiation, that are seen in the offspring of the individual who received the agent/radiation. The agent/radiation must be encountered during the gestation period.
TDD	Telecommunications device(s) for the deaf.
Threshold Dose	The minimum dose of radiation that will produce a detectable effect.
Thermo-luminescent Dosimeter (TLD)	A dosimetry badge used to measure an individual's level of exposure to ionizing radiation. It is characteristic of thermoluminescent material that radiation produces internal changes that cause the material, when subsequently heated , to give off a measurable amount of light directly proportional to the radiation dose.
Thyroid Exposure	Exposure of the thyroid gland to radiation from radioactive isotopes of iodine that have been either inhaled or ingested.

TERM	DEFINITIION
Timeline	The tabular illustration, in an exercise report, of the time at which significant events occurred at all participating OROs in a biennial REP exercise.
Timely	The responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay.
Timely Manner	"Timely Manner" is defined as "with a sense of urgency and without delay.
Total Effective Dose Equivalent (TEDE)	The sum of the deep dose equivalent (for external dose/exposures) + the committed effective dose equivalent (for internal dose/ exposures).
Traffic Control	All activities accomplished for the purpose of facilitating the evacuation of the general public in vehicles along specific routes.
Transient Persons	Non-resident. Persons who do not permanently reside in the plume exposure pathway EPZ, but may be present during an emergency.
Transuranic Elements	All elements above uranium on the periodic table – those with an atomic number greater than 92. All transuranics are produced artificially and are radioactive.
Tritium	The one radioactive isotope of hydrogen. A small percentage of natural hydrogen in tritium, but the primary source of tritium is nuclear reactors. It has a half-life of 12 years, but will remain in the body only a few days if taken internally. It is not considered a major health hazard since it is a very weak beta emitter and not harmful unless consumed in very large quantities.
Uranium	AN element of the periodic table. There are two primary isotopes: uranium-238, which accounts for 99 percent of all uranium; and uranium-235, the fissionable isotope that sustains the fission reaction in a nuclear reactor.
Vapor	The gaseous form of substances that are normally in liquid or solid form.

TERM	DEFINITIION
Voluntary Evacuation	The self-evacuation by the public after learning of a potential problem, danger or hazard, even though the situation does not warrant an official evacuation at the time.
Whole Body Dose	The dose of radiation received by the body in its entirety, as distinct from a dose to a limited area of the body. See "Whole Body Exposure"
Whole Body Exposure	AN exposure of the body to radiation, in which the entire body rather than an isolated part is irradiated. Where a radioisotope is uniformly distributed throughout the body tissue, rather than being concentrated in certain parts, the irradiation can be considered as a whole-body exposure. See "Whole Body Dose".
X-Ray	[1]"Electromagnetic radiations used in medical diagnosis; a penetrating electromagnetic radiation, usually generated by accelerating atoms to high velocity and suddenly stopping them by collision with a solid body." [2]"Penetrating electromagnetic radiation whose wave lengths are shorter than those of visible light. They are usually produced by bombarding a metallic target with fast electrons in a high vacuum. In nuclear reactions, it is customary to refer to photons originating in the nucleus as gamma rays, and to those originating in the extra-nuclear parts of the atom as x-rays. These rays are sometimes called roentgen rays after their discoverer, Wilhelm C. Roentgen. [3]A penetrating form of electromagnetic radiation that is used in medical and industrial applications.

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Criterion Description		Page No.	Paragraph No.
NUREG CRITERION A.1.a -Organizations Part of Response Each plan shall identify the State, local, Federal, and private sector organizations (including utilities), that are intended to be a part of the overall response organization for Emergency Planning Zones (EPZs) {See[NUREG-0654/FEMA-REP-1] Appendix 5}.			
✓-1	Describe all Federal, state, local, tribal, and private-sector organizations comprising the overall ORO. Tribal governments shall submit their own plans/ procedures or may choose to be included as part of the state plans/procedures within which the tribal land falls.	10 A-26	Basic Plan, Paragraph V Annex A Attachment 8
✓-2	Identify the principal response organizations.	10 A-26	Basic Plan, Paragraph V Annex A Attachment 8
NUREG CRITERION A.1.b - Organizations having role "Concept of Operations" Each organization and suborganization having an operational role shall specify its concept of operations and its relationship to the total effort.			
✓-1	Specify the organization's role in an emergency.	10	Basic Plan, Paragraph V
✓-2	Specify how the organization will carry out its role in an emergency.	10	Basic Plan, Paragraph V
NUREG CRITERION A.1.c - Interrelationships Block Diagram Each plan shall illustrate these interrelationships in a block diagram.			
✓-1	Include an illustration of each organization and its relationship to the total emergency response effort.	A-1 B-1 C-1 D-1 E-1 F-1 G-1	Annex A, Annex B, Annex C, Annex D, Annex E, Annex F, Annex G,
NUREG CRITERION A.1.d - Individual in Charge of Emergency Response Each organization shall identify a specific individual by title who shall be in charge of the emergency response.			

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✓-1	Identify a specific individual, by title/position, who is in charge of the emergency response. In Basic Plan ADD line who is specifically in charge by title to each position. ADD information on the State Government Executive Group for Decision Making as well as ESFs	10	Basic Plan, Paragraph V
✓-2	Identify who, by title/position, coordinates response activities under the authority of the person in charge.	10	Basic Plan, Paragraph V
NUREG CRITERION A.1.e - 24- Hour per day Emergency Response Each organization shall provide 24-Hour per day emergency response, including 24-per day manning of communication links.			
✓-1	Specify who, by title/position, is responsible for managing the communications center. **NEED TO ADD SPECIFIC LANGUAGE TO PLAN.**	B-2	Annex B, Paragraph III.A
✓-2	Describe the procedures to provide 24-hour emergency response.	B-2	Annex B, Paragraph II.A
✓-3	Specify where the 24-hour communications center is located. **NEED TO ADD SPECIFIC LANGUAGE TO THE PLAN.**	B-2	Annex B Paragraph II.A
✓-4	Refer to a personnel roster for maintaining 24-hour communications.	B-2	Annex B, Paragraph III.A
✓-5	Specify primary and backup means of notification. **NEED TO ADD SPECIFIC LANGUAGE TO THE PLAN.**	B-2	Annex B, Paragraph III.A
NUREG CRITERION A.2.a - Organization Functions & Responsibilities Each Organization shall specify the functions & responsibilities for major elements and key individuals by title, of emergency response, including the following: Command and Control, Alerting and Notification, Communications, Public Information, Accident Assessment, Public Health and Sanitation, Social Services, Fire and Rescue, Traffic Control, Emergency Medical Services, Law Enforcement, Transportation, Protective Response (including authority to request Federal assistance and to initiate other protective actions), and Radiological Exposure Control. The description of these functions shall include a clear and concise summary such as a table of primary and support responsibilities using the agency on one axis, and the function as the other.			
✓-1	Identify key individuals, by title/position, who have emergency response roles.	9	Basic Plan, Paragraph V

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✓-2	Describe the responsibilities by functional area.	10 A-2 B-2 C-2 D-2 E-2 F-2 G-2	Basic Plan, Paragraph VI. A-B Annex A, Paragraph III.A Annex B, Paragraph III. A & III.B.1-2 Annex C, Paragraph III.A-B Annex D, Paragraph III.A-D Annex E, Paragraph III. A-C Annex F, Paragraph III.A Annex G, Paragraph III.A-F
✓-3	Include a matrix of these responsibilities by functional area that identifies organizations responsible for primary and support roles.	A-1	Annex A, Cover Page
NUREG CRITERION A.2.b - Legal Basis for Functions & Responsibilities Each plan shall contain (by reference to specific acts, codes, or statues) the legal basis for such authorizes.			
✓-1	Identify the legal authority to assign lead responsibility for emergency preparedness to a particular state agency.	1	Basic Plan, Paragraph I
✓-2	Indicate who (e.g., the Governor) may declare a "state of emergency" (or state of disaster emergency) and what special powers may ensue.	A-2	Annex A, Paragraph III.B
✓-3	Identify the legal authority to delegate responsibility and authority for preparedness and response at the local level.	9	Basic Plan, Paragraph V.A
✓-4	Identify any limitations on the authority of Letter of Agreement signatories.	1	Basic Plan, Paragraph I
NUREG A.3 - Written Agreements Between Organizations Each plan shall include written segments referring to the concept of operations developed between Federal, State, and local agencies and other support organizations having an emergency response role within the Emergency Planning Zone. The agreements shall identify the emergency measures to be provided and the mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information. These agreements may be provided in an appendix to the plan, or the plan itself may contain descriptions of these matters and a signature page in the plan may serve to verify the agreements. The signature page format is appropriate for organizations where response functions are covered by laws, regulations, or executive orders where separate written agreements are not necessary.			
✓-1	Identify assisting organizations and the type of assistance (capabilities and resources) they will provide.	19-64	Resolution ii & iii Basic Plan, Appendix 1
✓-2	Specify for each organization identified whether the aid is covered under an inter- governmental mutual assistance compact or whether a Letter of Agreement (LOA) is needed.	19-64	Basic Plan, Appendix 1
✓-3	Include LOAs by reference or in a suitable appendix.	19-64	Basic Plan, Appendix 1

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✓-4	Include or reference applicable LOAs between the licensee and ORO arrangements for access to the NPP site, if appropriate.	19-64	Basic Plan, Appendix 1
✓-5	State that the LOAs include details on what services will be provided and how the agreements will be activated.	19-64	Basic Plan, Appendix 1 For other Agreements refer to Nemaha County RERP.
✓-6	State that LOAs are reviewed annually to verify their validity (See Criterion P.4)	14	Basic Plan, Paragraph VII.A.12
NUREG A.4 - Organization capable of 24-Hour Operations Each principle organization shall be capable of continue (24-hour) operations for a protracted period.			
✓-1	Indentify key individuals by title/position, who are responsible for ensuring continuity of resources in support of 24-hour operations.	A-3 B-2	Annex A, Paragraph IV.A. Annex B, Paragraph III.A
✓-2	Include a reference to a roster that identifies at least two shifts of key staff, as well as provisions for its maintenance.	A-3	Annex A, Paragraph IV.A.3
✓-3	Identify who is responsible, by title/position, for maintaining the roster, and where the roster is located.	14	Basic Plan, Paragraph VII.A.1-11
✓-4	Indicate the shift period (e.g., 8 or 12 hours), and specify that the outgoing staff will brief the incoming staff on the status of the emergency and the response activities occurring.	A-4	Annex A, Paragraph IV.A.7
✓-5	Describe the responsibilities by the functional areas listed above.	A-2	Annex A, Paragraph III & IV
NUREG CRITERION C.1.a - Person who Requests Federal Assistance Specify persons by title authorized to request Federal Assistance; see A.1.d and A2.a			N/A
✓-1	Identify by title/position, the key official authorized to request Federal Assistance.		
NUREG CRITERION C.1.b - Federal Resources Expected Specific Federal Resources expected, including times of arrival at specific nuclear facility sites.			N/A
✓-1	A process for identifying potential shortfalls in resources.		
✓-2	Information on and a list of resources that an ORO can expect to receive from the Federal Government.		
✓-3	An estimate of how long it will take those resources to arrive at the desired location.		
NUREG CRITERION C.1.c - Resources Available to Support Federal Response Specific licensee, State and local resources available to support the Federal response, e.g., airfields, command posts, telephone lines, radio frequencies, and telecommunications systems.			
✓-1	Describe the facilities that may be made available to Federal response personnel.	4	Basic Plan, Paragraph II.W
✓-2	Identify the general geographical areas for the locations of these facilities and the unique features of the area.	12	Basic Plan, Paragraph VI

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✓-3	Describe the interoperable communications plans/procedures, equipment, and protocols that may be made available to Federal response personnel.	12	Basic Plan, Paragraph VI
NUREG CRITERION C.2.a - State Representatives to Licensee EOF Each principal offsite organization may dispatch representatives to the licensee's Emergency Operations Facility (EOF). (State technical analysis representatives at the EOF are preferred.)			
✓-1	Indicate whether the ORO plans to send a representative to the licensee's emergency operations facility and if so, which person, by title/position, would be dispatched.	12	Basic Plan, Paragraph VI.C
NUREG CRITERION C.3 - Radiological Laboratory Support Each organization shall identify radiological laboratories, their general capabilities and expected availability to provide radiological monitoring and analyses services which can be used in an emergency.			N/A
✓-1	List the laboratories that are qualified to analyze samples of materials that may have been contaminated with radionuclides.		
✓-2	Indicate the radionuclides and analytical capabilities of each laboratory (e.g., the ability to analyze milk and other foodstuffs, soil samples, and water samples).		
✓-3	Indicate the number of samples the laboratories would be able to process in a given period.		
✓-4	Include the location and potential availability of the laboratories.		
NUREG CRITERION C.4 - Organizations that can provide Assistance. Each organization shall identify nuclear and other facilities, organizations, or individuals that can be relied upon in an emergency to provide assistance. Such assistance shall be identified and supported by appropriate Letters of Agreement.			
✓-1	Meet the requirements specified in Criterion A.3	4 10 17-64	Basic Plan, Paragraph II.W Basic Plan, Paragraph V. Basic Plan, Appendix One
NUREG CRITERION C.6 - Provide means for Onsite Response Support from OROs during a HAB Event Each organization shall make provisions to enable onsite response support from OROs in a hostile action-based incident as needed.			
✓-1	Include provisions to allow ORO law enforcement and other initial first responders prompt access to the NPP site.	H-2	Annex H Paragraph IV.A.2
✓-2	Include provisions for coordination between inbound response resources and evacuation efforts.	H-3	Annex H, Pargraph IV.A.7
✓-3	Identify any mutual aid agreements for alternate personnel to supplement local resources (see also Criterion A.3)	17	Nemaha County RERP, Basic Plan Appendix 1
✓-4	Addressing radiological training requirements for the primary and alternate personnel, including just-in-time training.	H-5	Annex H Pargraph IV.C.18
✓-5	Include procedures for activating qualified alternate personnel.	H-10	Annex H Paragraph VII.E.3.i
NUREG CRITERION D.3 - Emergency Classification Scheme Each State and local organization shall establish an emergency classification system (ECL) and emergency action level (EAL) scheme consistent with that established by the facility licensee.			
✓-1	Include reference to the standard Emergency Classification Levels (ECLs).	6	Basic Plan, Paragraph III.F

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✓-2	Acknowledge that the ECL system will form the basis for determining the level of response to a nuclear incident that will be consistent with the licensee.	6	Basic Plan, Paragraph III.F
NUREG CRITERION D.4 -Procedures for Emergency Actions to be Taken Each State and local organization should have procedures in place that provide for emergency actions to be taken which are consistent with the emergency actions recommended by the nuclear facility licensee, taking into account local offsite conditions that exist at the time of the emergency.			
✓-1	Indicate the emergency actions to be taken to protect the public at each ECL, given the local conditions at the time of the emergency.	6	Basic Plan, Paragraph III.F
NUREG CRITERION E.1 - Procedures for Notification for Emergency Response Organizations Each organization shall establish procedures that describe mutually agreeable bases for notification of response organizations consistent with the emergency classification and action level schemes as set forth in (NUREG-0654/FEMA-REP-1) Appendix 1. These procedures shall include means for verification of messages. The specific details of verification need not be included in the plan.			
✓-1	Initial notification from the licensee to a designated offsite 24-hour warning point (e.g., fire or police department dispatch, 911 emergency center). Offsite plans/procedures indicate the location of the warning point and the method of notification and backup (e.g., commercial telephone, dedicated telephone, fax machine, or pager). If the initial notification from the license to the warning point is over a non-secure system, the criterion requires message verification (e.g., via a return call). If the primary means of notification from the licensee to the warning point is on a dedicated system (i.e., one capable of being used only by a known, limited number of organizations), OROs may choose whether to verify receipt of notification.	12 B-3	Basic Plan, Paragarph VI.A&B Annex B, Paragrapgh IV.A
✓-2	Initial notification to licensee and the ORO when a notification originates from an entity other than the licensee. The plans/procedures identify the points of contact for the licensee and ORO, method of notification and backup, and method of verifying notification.	12 B-3	Basic Plan, Paragarph VI.A&B Annex B, Paragrapgh IV.A
✓-3	Subsequent notifications for the licensee and/or ORO to other offsite organizations. The plans/procedures may call for subsequent notifications to locations other than the warning point or other designated entities. For example, after the EOC is operational, the plans/procedures may state that all further notifications are made directly to the EOC rather than to the warning point.	12 B-3	Basic Plan, Paragarph VI.A&B Annex B, Paragrapgh IV.A
NUREG CRITERION E.2 - Procedures for Notification and Mobilization of Emergency Response Personnel Each organization shall establish procedures for alerting, notifying, and mobilizing emergency response personnel.			
✓-1	Indicate who by title/position, is responsible for notifying each staff member, either by including a notification call list or making reference to such a list.	11 B-3 B-6	Basic Plan, Paragarph VI.A Annex B, Paragrapgh IV.A Annex B, Attachment 1

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✓-2	Describe the process used to notify all applicable OROs once the 24-hour warning point, or other designated entity, has received and verified the initial notification, if necessary.	11 B-3 B-6	Basic Plan, Paragarph VI.A Annex B, Paragrapgh IV.A Annex B, Attachment 1
✓-3	Describe who, by title/position, has the responsibility for notifying all appropriate organizations once the initial notification to the 24-hour warning point has been made. For example, the responsibility of the warning point for notification may end after it places a call to the state and county emergency management agencies. A diagram that shows how the notification process works (e.g., call down) may supplement a plan/procedure description.	11 B-3 B-6	Basic Plan, Paragarph VI.A Annex B, Paragrapgh IV.A Annex B, Attachment 1
✓-4	Indicate the specific notifications made at each ECL.	11 B-3 B-6	Basic Plan, Paragarph VI.A Annex B, Paragrapgh IV.A Annex B, Attachment 1
✓-5	Indicate the means by which notifications will be accomplished (e.g., pagers, telephones, radios, auto dialers).	11 B-3 B-6	Basic Plan, Paragarph VI.A Annex B, Paragrapgh IV.A Annex B, Attachment 1
NUREG E.5 - System for dissemination of Public Information State and local government organizations shall establish a system for disseminating to the public appropriate information contained in initial and follow-up messages received from the licensee, including appropriate notification to appropriate broadcast media, e.g., the Emergency Alert System (EAS).			
✓-1	List the broadcast stations and other systems (e.g., tone alert radios, route alerting) used to provide emergency instructions to the public.	E-2 E-5	Annex E, Paragraph IV.A-B Annex E, Attachment 2
✓-2	Establish individual responsibilities for each broadcasting station and system and document commitments between them and the ORO (e.g., MOUs and/or LOAs) to honor these responsibilities in a radiological emergency. (See also Criterion A.3)	E-2 E-5	Annex E, Paragraph IV.A-B Annex E, Attachment 2
✓-3	Document or reference the broadcast stations' or systems' capability to participate in the public notification process. A statement that the station participates in a "Local Emergency Alert System Operational Area Plan" is considered satisfactory.	E-2 E-5	Annex E, Paragraph IV.A-B Annex E, Attachment 2
✓-4	Identify broadcast station and system points of contact, by title/position, who are accessible 24 hours a day, 7 days a week. (Also see Criterion A.4)	E-2 E-5	Annex E, Paragraph IV.A-B Annex E, Attachment 2
✓-5	Establish the interval for broadcasting official statements.	E-2 E-5	Annex E, Paragraph IV.A-B Annex E, Attachment 2
✓-6	Identify an alternate station, if a selected station does not have a backup power supply.	NA	NA
NUREG E.6 - Procedures of providing Instructions to the Public Each organization shall establish administrative and physical means, and the time required for notifying and providing prompt instruction to the public within the plume exposure pathway Emergency Planning Zone. (See [NUREG-0654/FEMA-REP-1] Appendix 3) It shall be the licensee's responsibility to demonstrate that such means exist, regardless of who implements this requirement. It shall be the responsibility of the State and local governments to activate such a system.			
✓-1	State that the alert and notification system (ANS) is capable of meeting the 15-minute design objective.	B-3	AnnexB, Paragraph IV.A 1-8
✓-2	Describe the primary and backup physical means of alert and notification, including the system(s) used to alert and notify the general public, persons with disabilities and access/functional needs , and exception areas, and their respective point(s) of activation.	B-3 B-3 M-2	Annex B, Paragraph IV.A 1-8 Annex B, Paragraph III.C.3 Annex M, Paragraph IV.A-B

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✓-3	Describe the administrative means of alert and notification, including:	B-3 M-2	AnnexB, Paragraph IV.A 1-8 Annex M, ParagraphIV.A-B
	✓-3a - The title of the organization or individuals responsible for: (1) making the decision to activate the ANS and (2) activating the system.	B-3 M-2	AnnexB, Paragraph IV.A 1-8 Annex M, ParagraphIV.A-B
	✓-3b - The ANS activation procedures and time required to implement the procedures.	B-3 M-2	AnnexB, Paragraph IV.A 1-8 Annex M, ParagraphIV.A-B
	✓-3c - A discussion of how the requirements for periodic siren testing will be accomplished.	B-3 B-3 M-2	AnnexB, Paragraph IV.A 1-8 Annex B, Paragraph IV.A.4 Annex M, ParagraphIV.A-B
NUREG E.7 - EAS Messages Each organization shall provide written messages intended for the public, consistent with the licensee's classification scheme. In particular, draft messages to the public giving instructions with regard to specific protective actions to be taken by occupants of affected areas shall be prepared and included as part of the State and local plans. Such messages should include the appropriate aspects of sheltering, ad hoc respiratory protection, e.g., handkerchief over mouth, thyroid blocking , or evacuation. The role of the licensee is to provide supporting information for the messages. For ad hoc respiratory protection see "Respiratory Protective Devices Manual" American Industrial Hygiene Association, 1963, pp. 123-126.			
✓-1	EAS message templates that would be modified as necessary and sent to the EAS station(s) for broadcast.	M-2 M-17	Annex M, Paragraph IV.A-B Annex M, Attachments 3 Annex M, Attachment 4
✓-2	Provisions for special news broadcasts as supplements to the EAS Message(s).	M-2 M-17	Annex M, Paragraph IV.A-B Annex M, Attachments 3 Annex M, Attachment 4
✓-3	Provisions for foreign language translations of EAS messages and special news broadcasts, if required.	M-2 M-17	Annex M, Paragraph IV.A-B Annex M, Attachments 3 Annex M, Attachment 4
✓-4	The process for selecting, modifying, approving, and releasing messages.	M-2 M-17	Annex M, Paragraph IV.A-B Annex M, Attachments 3 Annex M, Attachment 4
✓-5	The methodology for EAS message re-broadcast, along with the frequency (how many times and at what interval, such as every 15 minutes.	M-2 M-17	Annex M, Paragraph IV.A-B Annex M, Attachments 3 Annex M, Attachment 4
NUREG F.1a - 24 Hour Activation of Emergency Response Provisions for 24-hour per day notification to and activation of the State/local emergency response network; and, at a minimum, a telephone link and alternate, including 24-hour per day manning of communications links that initiate emergency response actions.			
✓-1	Describe the equipment used (e.g., dedicated telephone line or specific radio net) for notifying and communicating with the organization's personnel and other response organizations. The equipment must include a primary link and alternate means of communication.	B-2	Annex B, Paragraph II

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NUREG CRITERION F.1.b - Communications Provisions within the EPZ. Provisions for communications with contiguous State/local governments with- in the Emergency Planning Zone;			
✓-1	Primary and back-up communications capability between all local governments within the plume EPZ.	B-11	Annex B, Paragraph, Attachment 4
✓- 2	Primary and back-up communications capability between each local government and any associated host//support counties located outside the plume EPZ.	B-11	Annex B, Paragraph, Attachment 4
✓-3	Primary and backup communications capability between each state government and all local governments within its jurisdiction and within the plume and/or ingestion EPZ.	B-6 B-11	Annex B, Paragraph IV.A.9 Annex B, Attachment 4
NUREG CRITERION F.1.c - Communications with Federal Response Organizations. Provisions for communications, as needed with Federal response organizations.			Coordinated by the state
✓-1	The system(s) available for communicating with Federal response organizations (e.g., ordinary commercial telephone, dedicated telephone lines, radio nets).	B-3	Annex B.Paragraph IV.A.10
✓-2	The primary system and at least one back up system.	B-3	Annex B.Paragraph IV.A.10
NUREG CRITERION F.1.d - Communications with the SEOC, EOF and Radiation Monitoring Teams Provisions for communications between the nuclear facility and the licensee's Emergency Operations Facility, State and local emergency operations centers, and radiological monitoring teams;			
✓-1	The primary and backup communications systems that provide links to the emergency operations facility.	B-3 B-11	Annex B, Paragraph IV.B.1 & 6 Annex B, Paragraph, Attachment 4
✓-2	For jurisdictions that deploy radiological monitoring and other field teams, the primary and back-up systems used to communicate with the teams.	B-3 B-11	Annex B, Paragraph IV.B.1 & 6 Annex B, Paragraph, Attachment 4
NUREG CRITERION F.1.e - Alert/Activating Emergency Response Organizations. Provisions for alerting or activating emergency personnel in each response organization.			
✓-1	Contain a general description of how personnel are activated (i.e., notified of an incident and requested to report to their emergency duty station).	A-3	Annex A, Paragraph VI.A
✓-2	Include or reference lists of names and phone numbers of personnel to alert or activate based on the ECL.	A-3	Annex A, Paragraph VI.A
NUREG CRITERION F.2 - Communications with Medical Support Each organization shall ensure that a coordinated communication link for fixed and mobile medical support facilities exists.			
✓-1	Identification of communication links between the ambulance and the designated hospital/medial facilities.	B-2 B-3	Annex B, Paragraph,II. C Annex B, Paragraph III.C.4

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✓-2	A description of primary and back-up communications among the hospital/medical faculties, the jurisdiction's EOC and the licensee.	B-2 B-3 B-5	Annex B, Paragraph,II. C Annex B, Paragraph III.C.4 Annex B, Paragraph IV.B.1
NUREG CRITERION F.3 - Periodic Testing of Emergency Communicate- tions System. Each organization shall conduct periodic testing of the entire emergency communications system (see[NUREG-0654/FEMA-REP-1] Evaluation Criterion H.10 and N.2.a, and Appendix 3).			
✓-1	Describe the test method and period (e.g., monthly, quarterly or annually) for each communication system used for the functions identified in Criteria F.1 and F.2	10	Basic Plan, Paragraph V.B.2
NUREG CRITERION G.1 - Annual Dissemination of Information to the Public Each organization shall provide a coordinated periodic (at least annually) dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency. This information shall include, but not necessarily be limited to: a. educational information on radiation; b. contact for additional information; c. protective measures, e.g., evacuation routes and relocation centers, sheltering, respiratory protection, radioprotective drugs; and d. special needs of the handicapped. Means for accomplishing this dissemination may include, but are not necessarily limited to: information in the telephone book; periodic information in utility bills; postings in public areas; and publications distributed on an annual basis.			Beyond the Capabilities of local government, covered in the State Plan
✓-1	A description of each item (e.g., brochure, calendar, utility bill insert) used to disseminate public information annually. Copies of these items must be provided to FEMA for review on an annual basis through the ALC. In addition to the ALC submission, materials may be reviewed during an SAV, exercise, separate mailing, etc.	15	Basic Plan Paragraph VII.A.13-14
✓-2	Provisions for identifying individuals needing assistance with evacuation and how personnel information will be provided.	15	Basic Plan Paragraph VII.A.13-14
✓-3	A description of materials directed to transient populations.	15	Basic Plan Paragraph VII.A.13-14
✓-4	A description of materials addressing information for the ingestion pathway, if separate from the general public information materials.	15	Basic Plan Paragraph VII.A.13-14
✓-5	A description of each item translated into non-English languages that are spoken within the EPZ by more than 5% or 10,000 persons of the county population, as well as information accessible to other persons with disabilities and access/functional needs located within the EPZ.	15	Basic Plan Paragraph VII.A.13-14
NUREG CRITERION G-2 - Public Information Program The public information program shall provide the permanent and transient adult population within the plume exposure EPZ an adequate opportunity to become aware of the information annually. The programs should include provisions for written material that is likely to be available in a residence during an emergency. Updated information shall be disseminated at least annually. Signs or other measures (e.g., decals, posted notices, or other means placed in hotels, motels, gasoline stations, and phone booths) shall also be used to disseminate to any transient population within the plume exposure pathway appropriate information that would be helpful if an emergency or accident occurs. Such notices should refer the transient to the telephone directory or other source of local emergency information and guide the visitor to appropriate radio and television frequencies.			Beyond the Capabilities of local government, covered in the State Plan

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✓-1	Methods used to disseminate public information, assuring that all residents in the plume EPZ will be covered, and that written material will likely be available in a resident during an emergency.	15	Basic Plan Paragraph VII.A.13-14
✓-2	Methods for distributing ingestion exposure pathway information annually within the 10-mile EPZ, and provisions for distribution within the 50-mile EPZ if needed.	15	Basic Plan Paragraph VII.A.13-14
✓-3	Methods used to disseminate and maintain public information for transient population.	15	Basic Plan Paragraph VII.A.13-14
NUREG CRITERION G.3.a - Designated Point of Contact & Locations for News Media Each principal organization shall designate the points of contact and physical locations for use by news media during an emergency.			
✓-1	Identify the location where the jurisdiction will brief the media, whether at the Joint Information Center (JIC), separate facility, or both	E-2	Annex E, Paragraph IV.C
✓-2	Include a physical description of the facility, including its location and size, and any steps necessary to activate it for use (e.g., coordination with other organizations consistent with Incident Command System, installation of equipment, and rearranging of furnishings), for jurisdictions that operate a media facility.	E-2	Annex E, Paragraph IV.C.1-2
✓-3	If the primary facility is located within the EPZ, identify an alternate facility located outside the EPZ available to provide the same capabilities, and describe the facility with the same level of detail specified for the primary facility.		Primary facility not within the EPZ
✓-4	Describe the organization's capability to answer media telephone inquiries.	E-2	Annex E, Paragraph IV.A-G
✓-5	Describe the mechanism for coordination between the team of personnel designated to answer media calls and the organization's public information officer (PIO), as well as with points of contact located at other facilities supporting the JIC.	E-2	Annex E, Paragraph IV.A-G
NUREG CRITERION G.4.a - Designated Spokesperson Each principal organization shall designate a spokesperson who should have access to al necessary information.			
✓-1	Identify who, by title/position, will serve as the main PIO for the organization and where the PIO will be located. If media interaction is planned for more than one location, a main PIO is designated for each location.	E-2	Annex E, Paragraph III.A
✓-2	Describe how the PIO will obtain access to information about the emergency and the organizations' response efforts, gather and verify such information, and coordinate/communicate with the appropriate personnel for approval in advance of disseminating any information to the public and/or the media.	E-2	Annex E, Pargraph IV
✓-3	If the PIO will be operating at the location remote from the EOC, describe:	E-2	Annex E, Paragraph IV.C
✓-3a	• Who, by title/position, will be the main point of contact in the EOC for exchanging information with the PIO.	E-2	Annex E, Paragraph IV.B
✓-3b	• What physical means (e.g., telephone, fax, or computer network) will be used for communicating information between the EOC and PIO.	E-2	Annex E, Paragraph IV.A-G
✓-4	Include procedures for authorizing the release of information and, in particular, for control and release of sensitive information.	E-2	Annex E, Paragraph IV.A-G

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NUREG CRITERION G.4.b - Timely Exchange of Information Each organization shall establish arrangements for timely exchange of information among designated spokespersons.			
✓-1	The exchange, discussion, and coordination of information among PIOs, if information is provided to the media primarily through a JIC (e.g., meetings to coordinate and share information prior to press briefings/ conferences, circulation of press releases among the PIOs and their staffs).	E-2	Annex E, Pargraph IV
✓-2	If the jurisdiction has a PIO at a separate facility (in addition to or instead of the JIC), equipment and procedures for timely exchange of information with other PIOs including:	E-2	Annex E, Pargraph IV
✓-3	Who, by title/position, is responsible for ensure that the exchanges take place.	E-2	Annex E, Pargraph IV
✓-4	What physical communications means (E.g., telephone, fax, computer network, electronic mail, video or Internet-based teleconference system) will be used.	E-2	Annex E, Pargraph IV
NEREG 4.G.c - Public Inquiry (formerly Rumors Control) Each organization shall establish coordinated arrangements for dealing with rumors.			
✓-1	Describe the capability to receive and effectively respond to numerous simultaneous telephone calls for the general public and respond to questions, requests, or comments posed by the public.	E-2	Annex E, Pargraph IV
✓-2	Identify the method for publicizing the dedicated telephone number(s) and other contact information (e.g., website address) for public inquiries and/or media information.	E-2	Annex E, Pargraph IV
✓-3	Include or describe procedures to effectively monitor media information messages to identify incomplete, inaccurate, or ambiguous information related to the emergency in the public domain.	E-2	Annex E, Pargraph IV
✓-4	If a jurisdiction sends a delegate to a joint public inquiry program or relies on another organization to answer public inquiries, identify which organization provides or coordinates the public inquires program and the method for contacting that organization.	E-2	Annex E, Pargraph IV
NUREG CRITERION G.5 - Program to Acquaint News Media with NRERP Each organization shall conduct coordinated programs at least annually to acquaint news organizations with the emergency plans, information concerning radiation, and points of contact for release of public information in an emergency.			Coordinated by the state
✓-1	Provisions for an annual media briefing.	15	Basic Plan Paragraph VII.A.13-14
✓-2	Distribution of written materials (media kits) covering topics described below.	15	Basic Plan Paragraph VII.A.13-14
✓-3	Each item provided as baseline information about REP to the local media.	15	Basic Plan Paragraph VII.A.13-14
NUREG H.3 - State Emergency Operations Center Each organization shall establish an emergency operations center for use in directing and controlling response functions.			
✓-1	A description or reference to the location and layout of the EOC.	A-2	Annex A, Paragraph II
✓-2	A listing of facility equipment necessary to support operations.	A-2	Annex A, Paragraph II
✓-3	The EOC's backup power capability, if available.	A-2	Annex A, Paragraph II
✓-4	Details and methods of access control to the facility.	A-2	Annex A, Paragraph II
✓-5	Reference to the location of the alternate EOC, if applicable.	A-2	Annex A, Paragraph II

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✓-6	The organization and official, by title/position, responsible for maintaining the operational readiness of the EOC.	A-2	Annex A, Paragraph II
NUREG H.4 - Activation and Staffing of Facilities and Centers Each organization shall provide for timely activation and staffing of the facilities and centers described in the plan.			
✓-1	Detailed procedures for activation and staffing for all emergency facilities	A-3	Annex A Paragraph IV
✓-2	Criteria used for declaring facilities operational.	A-3	Annex A Paragraph IV
✓-3	A list of staff, by title/position, assigned to each facility and rosters of key positions. (SEE Explanation for what is required).	A-3	Annex A Paragraph IV
NUREG H.7 - Offsite Radiological Monitoring Equipment Each organization, where appropriate, shall provide for offsite radiological monitoring equipment in the vicinity of the nuclear facility.			
✓-1	Radiological monitoring equipment, by type and number, that is located or stored near the NPP or that will be brought in by the ORO.	F-32	Annex F, Attachment 13
✓-2	Fixed radiological monitoring stations near the NPP.	F-32	Annex F, Attachment 13
NUREG H.10 - Inspection, Inventory & Operational Checks of Equipment Each organization shall make provisions to inspect, inventory, and operationally check emergency equipment/instruments at least once each calendar quarter and after each use. There shall be sufficient reserves of instruments/ equipment to replace those that are removed from emergency kits for calibration or repair. Calibration of equipment shall be at intervals recommended by the supplier of the equipment.			
✓-1	Describe the organization(s) responsible for maintenance of all radiological equipment.	F-32	Annex F, Attachment 13
✓-2	Describe the specifics regarding the inventory, operational checks, and calibration for dosimetry, portal monitors, radiological survey equipment, air sampling equipment, and laboratory equipment.	F-32	Annex F, Attachment 13
NUREG H.11- Identification of Emergency Response Kits Each plan shall, in an appendix, include identification of emergency kits by general category (protective equipment, communications equipment, radiological monitoring equipment, and emergency supplies).			
✓-1	The number and contents of emergency response kits by location and general category.	F-16	Annex F, Attachment 4
✓-2	The quantity of each item per kit.	F-16	Annex F, Attachment 4
NUREG H.12- Identification of Central Point of Field Data Each organization shall establish a central point (preferably associated with the licensee's Emergency Operations Facility), for receipt and analysis of all field monitoring data and coordination of sample media.			
✓-1	Describe the organization(s) responsible for assessing radiological data.	F-3	Annex F, Paragraph III
✓-2	Describe the location of the central point for compiling and analyzing all field monitoring data, including the means used by FMTs to relay information to the central point.	F-3	Annex F, Paragraph III
✓-3	Describe the coordination and analysis of sample media, including procedures for transporting samples and transferring the data from the laboratory to the central point.	F-3	Annex F, Paragraph III

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NUREG I.7 - Capability and Resources for Field Monitoring Each organization shall describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone that are an intrinsic part of the concept of operations for the facility.			Beyond the Capabilities of local government, covered in the State Plan
✓-1	Describe which organizations have primary responsibility for field monitoring activities.		
✓-2	Describe the capabilities and resources state, local, tribal, and non-governmental organizations will contribute.		
NUREG I.8 - Rapid Assessment of Radiological Hazard Pathways Each organization, where appropriate, shall provide methods, equipment, and expertise to make rapid assessments of the actual or potential magnitude and locations of nay radiological hazards through liquid or gaseous release pathways. This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times.			
✓-1	Describe the process for activating and notifying field teams.	F-3	Annex F, Paragraph III
✓-2	Describe the composition of the Field Monitoring Teams FTMs (e.g., organizations involved, number of teams [two or more], number of members on each time).	F-3	Annex F, Paragraph III
✓-3	Describe the types and sources of transportation resource(s) for FMTs and estimated deployment times to reach a site from various locations, if applicable.	F-3	Annex F, Paragraph III
✓-4	Describe the location of any staging areas.	F-3	Annex F, Paragraph III
✓-5	Describe the title/position of the person responsible for directing FMTs to proper locations for monitoring and air sampling.	F-3	Annex F, Paragraph III
✓-6	Describe the monitoring, sampling, and communications equipment that will be used by the FMTs.	F-3	Annex F, Paragraph III
✓-7	Describe the procedures that will be followed for field monitoring, sample collection, and field sample analysis.	F-3	Annex F, Paragraph III
✓-8	Describe the laboratories to which specific samples will be sent for analysis, including estimated delivery time analysis times, transportation and temporary storage arrangements, and procedures for chain-of-custody records.	F-3	Annex F, Paragraph III
✓-9	Describe how ORO will obtain centerline measurements.	F-3	Annex F, Paragraph III
NUREG I.9 - Capability to Detect & Measure Radioiodine Concentrations Each organization shall have a capability to detect and measure radioiodine concentrations in air in the plume exposure EPZ as low as 10^{-7} µCi/cc (microcuries per cubic centimeter) under field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.			Does not apply. Not within the Plume EPZ
✓-1	Describe the capability to collect air samples within the plume and perform analysis that will detect radioiodine concentrations as low as 10^{-7} µCi/cc under field conditions.		
✓-2	Describe the process used for collecting air samples, including location of sampling points, timing of sample collection, and techniques used to collect and count (see Criterion I.8).		

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NUREG I.10 - Means for relating various Measures to Dose Rates Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water, and air activity levels) to dose rates for key isotopes (i.e., those given in [NUREG-0654/FEMA-REP-1] Table 3, page 18) and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures.			N/A
✓-1	Personnel and equipment that will be involved in dose assessment.		
✓-2	Computer software and documentation, including data input procedures, that will be used.		
✓-3	Alternate methods that may be used (e.g., hand calculations).		
✓-4	Information/variables to run the model, including proper units of measure.		
✓-5	Means for obtaining initial information (e.g., from licensee monitors or inventory estimates).		
✓-6	Use of filed data to verify and modify model results.		
✓-7	Procedures for comparing dose results with those of other organizations that perform dose assessments.		
NUREG H.11 - Arrangements to Locate and Track Airborne Radiological Plume Arrangements to locate and track the airborne radioactive plume shall be made, using either or both Federal and State resources.			N/A
✓-1	The planned use of any outside resources to locate and track the plume, including taking measurements and collecting air samples from or near the plume's peak concentration, if applicable.		
NUREG J.2 - Evacuation and Transportation for On-Site Individuals Each licensee shall make provisions for evacuation routs and transportation for onsite individuals to some suitable offsite location, including alternatives for inclement weather, high traffic density, and specific radiological conditions.			
✓-1	Describe assistance that will be provided to licensees during an evacuation of the site or a statement that no assistance is required.	5 C-9-12	Basic Plan, Paragraph III. Annex C, Attachments 1, 2 & 3
✓-2	The alternatives that will be implemented during inclement weather and/or high traffic densities.	5 C-9-12	Basic Plan, Paragraph III. Annex C, Attachments 1, 2 & 3
✓-3	Provisions for coordinating arrangements with other offsite organizations to expedite evacuation of onsite personnel.	5 C-9-12	Basic Plan, Paragraph III. Annex C, Attachments 1, 2 & 3
NUREG J.9 - Capabilities/Implementation of Protective Measures from Exposure Each State and local organization shall establish a capability for implementing protective measures on the basis of Protective Action Guides and other criteria. This shall be consistent with the recommendations of the EPA regarding exposure resulting from passage of radioactive airborne plumes, ((EPA-400-R-92-001) and with those of the DHEW 9HHS)/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register of August 13, 1998 (63 FR 43402). **Plans and Procedures shall include:**			

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✓-1	The organization's procedures for making PADs and implementing protective actions based upon PAGs that are consistent with EPA recommendations.	8 F-5	Basic Plan, Parragraph IVE Annex F, Paragraph IV.A-E
✓-2	The process followed to ensure coordination of PADs with all appropriate jurisdictions.	8 F-5	Basic Plan, Parragraph IVE Annex F, Paragraph IV.A-E
NUREG J.10.a - Maps of Evacuation Routes, Areas, Radiation Points Maps showing evacuation routes, evacuation areas, pre-selected radiological sampling and monitoring points, relocation centers in host areas, and shelter areas (identification of radiological sampling and monitoring points shall include the designators in [NUREG-0654/FEMA-REP-1] Table J-1 or an equivalent uniform system described in the plan); **Plans and Procedures shall:**			
✓-1	Include clearly legible maps of all evacuation routes, evacuation areas, pre-selected radiological sampling and monitoring points (including water supplies), reception and congregate care centers in host/support jurisdictions, decontamination facilities, and shelter areas.	C-10-19 G-16-20 F-45	Annex C, Attachments 2,4,5, and 6 Annex G, Attachment 4 & 5 Annex F, Attachment 16
✓-2	Describe the procedures and organization(s) responsible for updating and maintaining maps, as necessary, using the most current and accurate data (e.g., census data, sate and county records, etc.).	C-7	Annex C, Paragraph V.C
NUREG J.10.b - Maps of Population Distribution Maps showing population distribution around the nuclear facility. This shall be by evacuation areas (licensees shall also present the information in a sector format).			
✓-1	Clear, legible maps showing population distribution around the NPP, possibly in a separate appendix.	A-17	Annex A, Attachment 4
NUREG J.10.c - Means for Notification of Transients / Residents Means for notifying all segments of the transient and resident population; To meet this criterion, the ORO plans/procedures shall:			
✓-1	Meet the requirements listed under Criteria E.5, E.6 and E.7		See Criteria for E.5, E.6, and E.7
NUREG J.10.d - Means for Protecting Special Needs Personnel Means for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement;, the ORO plans/procedures shall:			
✓-1	Describe the means to protect those persons whose mobility may be impaired because of institutional or other confinement (e.g., children in schools and licensed daycare centers and persons in nursing homes, hospitals, and correctional facilities).	5 G-12 G-10	Basic Plan, Paragraph III.C&D Annex G, Paragraph IX.B Annex G, Psrsgraph VII.K
✓-2	Describe the methods for determining the number of persons who may need assistance and the type of assistance, per planning area.	5 G-12 G-10	Basic Plan, Paragraph III.C&D Annex G, Paragraph IX.B Annex G, Psrsgraph VII.K
✓-3	Reference lists of documented individuals who need assistance in an evacuation of the EPZ and processes for keeping the lists up to date.	5 G-12 G-10	Basic Plan, Paragraph III.C&D Annex G, Paragraph IX.B Annex G, Psrsgraph VII.K

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✓-4	Describe processes for evacuating persons with disabilities and access / functional needs and for sheltering in place those who cannot be moved.	5 G-12 G-10	Basic Plan, Paragraph III.C&D Annex G, Paragraph IX.B Annex G, Psrsgraph VII.K
✓-5	Describe any special transportation needs for these groups and the transportation resources, including types and quantities of vehicles, used to move them.	5 G-12 G-10	Basic Plan, Paragraph III.C&D Annex G, Paragraph IX.B Annex G, Psrsgraph VII.K
NUREG J.10.e - Provisions for the use of KI Provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the plume exposure EPZ whose immediate evacuation may be infeasible or very difficult, including quantities, storage, and means of distribution; the ORO plans/procedures shall describe:			
✓-1	What groups might be advised to take KI.	F-9 F-15	Annex F, Paragraph V.D Annex F, Attachment 3
✓-2	Adequate supply of radioprotective drugs for each individual, including quantities, storage locations, and means of distribution.	F-9 F-17	Annex F, Paragraph V.D Annex F, Attachment 4
✓-3	Adequate maintenance, shelf life extensions, and timely replacement of radioprotective drugs.	F-9	Annex F, Paragraph V.D-E
✓-4	Means for communicating a recommendation to take radioprotective drugs to emergency workers, institutionalized persons, and (if included as an option in the plans/procedures) the general public.	F-9 F-15	Annex F, Paragraph V.D Annex F, Attachment 3
NUREG J.10.f - Methods by which decisions are made by DHHS, DPH for use of KI State and local organizations' plans should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population are made during an emergency and the pre-determined conditions under which such drugs may be used by offsite emergency workers; the ORO plans/procedures shall:			**Responsibility of State Department of Health, Covered in State Plan.**
✓-1	Identify, by title/position, those who will make decisions regarding the use of KI during an emergency.	F-15	Annex F, Attachment 3
✓-2	Describe the criteria and decision-making processes for recommending KI.	F-15	Annex F, Attachment 3
NUREG J.10.g - Means of Evacuation To meet the intent of this criterion, ORO plans/procedures shall describe how the public within the plume exposure pathway EPZ will be evacuated, including:			
✓-1	Means for controlling traffic to assure a safe and efficient evacuation.	C-2 C-4 G-7	Annex C, Paragraph III.A-B Annex C, Paragraph IV.B.1-5 Annex G, Paragraph VII. A-K
✓-2	Procedures for implementing alternate evacuation routes, if warranted.	C-2 C-4 G-7	Annex C, Paragraph III.A-B Annex C, Paragraph IV.B.1-5 Annex G, Paragraph VII. A-K
✓-3	Transportation resources, including drivers.	C-2 C-4 G-12	Annex C, Paragraph III.A-B Annex C, Paragraph IV.B.1-5 Annex G, Paragraph IX.D
✓-4	The methods for determining the number of persons without private transportation, per planning area.	C-2 C-4 G-10	Annex C, Paragraph III.A-B Annex C, Paragraph IV.B.1-5 Annex G, Paragraph VII.K.1.a
✓-5	Designated pick-up points for persons without private transportation.	C-2 C-4 G-11	Annex C, Paragraph III.A-B Annex C, Paragraph IV.B.1-5 Annex G, Paragraph IX.A

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NUREG J.10.h - Location of Relocation Centers Relocation centers in host areas which are at least 5 miles, and preferably 10 miles, beyond the boundaries of the plume exposure emergency planning zone (see [NUREG-0654/FEMA-REP-1] J.12):			
✓-1	All relocation centers and host schools for evacuees and students by name and address.	G-20	Annex G, Attachment 4 & 5
✓-2	Organizations responsible for managing the centers and staffing requirements for each center.	G-5 G-27	Annex G Paragraph IV.G. 1-3 Annex G, Attachment 7
✓-3	Arrangements for handling students at relocations centers and/or host schools.	G-3	Annex G Paragraph IV.H.1-5
✓-4	Arrangements for handling service animals.	G-3	Annex G Paragraph IV.G.1-3
✓-5	Hospitals, correctional facilities, and nursing homes that will receive evacuees.	F-9 G-3	Annex F, Paragraph V.G Annex G Paragraph IV
✓-6	Provisions for the radiological monitoring of evacuees, service animals, and evacuee vehicles, according to plans/procedures. If students are taken to host schools where monitoring capabilities are not present, the plans/procedures address any special considerations for radiological monitoring of student evacuees following a release.	G-3	Annex G Paragraph IV.A-K
✓-7	Provisions for students at schools outside the EPZ who reside within the EPZ.	G-3	Annex G Paragraph IV.H.1-5
NUREG J.10.i - Projected traffic capacities of Evacuation Routes Projected traffic capacities of evacuation routes under emergency conditions; ORO plans and procedures shall:			
✓-1	Reference the evacuation time estimate (ETE) studies and include the results of the ETEs.	9 C-4	Basic Plan, Paragraph IV.G Annex C Paragraph IV.B.1-5
✓-2	Reference the traffic capacities of the evacuation routes.	9 C-4	Basic Plan, Paragraph IV.G Annex C Paragraph IV.B.1-5
✓-3	Discuss the potential need to use alternate routes because traffic impediments, adverse weather conditions, an airborne radioactive plume, areas affected by hostile actions, or other factors that might hinder a timely, safe evacuation.	9 C-4	Basic Plan, Paragraph IV.G Annex C Paragraph IV.B.1-5
✓-4	Provide maps as described in Criterion J.10.a	C-10-19 G-16-20 F-45	Annex C, Attachments 2,4,5, and 6 Annex G, Attachment 4 & 5 Annex F, Attachment 16
NUREG J.10.j - Control of access to evacuated areas and organization responsibilities for such control ORO plans and procedures shall describe:			
✓-1	Procedures for controlling road access to sheltered and/or evacuated areas, including organization(s) responsible for staffing TCPs and Access Control Points (ACPs).	C-4 C-14	Annex C, Paragraph IV.B.1-5 Annex C, Attachments 4,5,and 6
✓-2	Maps identifying TCPs/ACPs (may be incorporated by reference).	C-4 C-14	Annex C, Paragraph IV.B.1-5 Annex C, Attachments 4,5,and 6
✓-3	Equipment and resources needed (e.g., cones or barricades).	C-4 C-14	Annex C, Paragraph IV.B.1-5 Annex C, Attachments 4,5,and 6
✓-4	Procedures and responsibilities for controlling access via other transportation modes.	C-4 C-14	Annex C, Paragraph IV.B.1-5 Annex C, Attachments 2, 3, 4,5,and 6
✓-5	Procedures and responsibilities for controlling ingress and egress to other areas affected by an incident.	C-4 C-14 C-5 C-5 H-14	Annex C, Paragraph IV.B.1-5 Annex C Paragraph.IV.C Annex C Paragraph IV.D Annex C Paragraph IV.I Annex H Paragraph VI.G.3.f

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✓-6	Procedures for providing TCP/ACP staff with the status of emergency response activities.	C-4 C-14	Annex C, Paragraph IV.B.1-4 Annex C, Attachments 4, 5, and 6
NUREG J.10.k - Identification of and Means for dealing with Potential Impediments to use Evacuation Routes: ORO plans and procedures shall describe:			
✓-1	Resources available (e.g., personnel and equipment) to clear impediments to evacuation and emergency response in areas affected by incidents.	C-4 C-14	Annex C, Paragraph IV.B.1-4 Annex C, Attachments 4, 5, and 6
✓-2	Responsibility for directing resources and rerouting traffic as needed.	C-4 C-14	Annex C, Paragraph IV.B.1-4 Annex C, Attachments 4, 5, and 6
NUREG J.10.l - Time Estimates for Evacuation of Areas Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (see [NUREG-0654/FEMA-REP-1] Appendix 4); ORO plans and procedures shall describe or reference:			
✓-1	Time estimates for evacuation of various sectors or evacuation areas.	C-4 C-18	Annex C, Paragraph IV.B.1-4 Annex C, Attachments 5, and 6
✓-2	The times required for the movement of school children and other persons with disabilities and access/functional needs.	C-4 C-18	Annex C, Paragraph IV.B.1-4 Annex C, Attachments 5, and 6
NUREG J.10.m - Bases for choices of protective actions The bases for the choices of recommended protective actions from the plume exposure pathway during emergency conditions. This shall include expected local protection afforded in residential units or other shelter for direct and inhalation exposure, as well as evacuation time estimates.			N\A
✓-1	The rationales for any pre-planned precautionary actions, including the triggering events that would lead to the decision to implement these actions.		
✓-2	The rationales used to make initial PADs.		
✓-3	The rationales used for subsequent PDs, including the consideration of various possible options.		
NUREG J.11 - Protective Measures used for Ingestion Pathway Each State shall specify the protective measures to be used for the ingestion pathway, including the methods for protecting the public from consumption of contaminated food-stuffs. This shall include the criteria for deciding whether dairy animals should be put on stored feed. The plan shall identify procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion, and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, water sheds, water supply intake and water treatment plants and reservoirs shall be maintained. Provisions for maps showing detailed crop information may be made by including reference to their availability and location and a plan for their use. The maps shall start at the facility and include all the 50-mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, shall be maintained.			N/A

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✓-1	The individual(s), by title/position, and organization with the authority to make decisions in the ingestion pathway zone.		
✓-2	The ingestion protective actions planned and the rationale for the selection of actions, also see Criteria J.9 and J.10.m		
✓-3	The methodology used to designate the areas of concern where monitoring and sampling will be implemented.		
✓-4	The methodology for collecting agricultural samples, including identifying field team members, providing necessary supplies, names and addresses of contact points to obtain permission to collect samples, and chain of custody procedures.		
✓-5	The analytical laboratory capability to analyze various samples and the procedures for reporting analytical results to the appropriate organization.		
✓-6	The location and means of obtaining up-to-date information on permanent agribusiness facilities within the EPZ. This information includes dairies, food processing plants, surface water supplies, water intakes, and other permanent facilities. Information also includes facilities outside the EPZ that could receive potentially contaminated products from within the EPZ, including names and telephone numbers of points of contact.		
✓-7	The location and means of obtaining up-to-date information on land use (i.e., which crops are being grown in which areas). This information includes the status of harvesting.		
✓-8	The DILs that would warrant implementation of protective actions and the rationale and assumptions used to develop the DILS.		
✓-9	The availability of suitable maps for recording various data. The use of electronic means to capture and map survey and dose data (e.g. geographic information systems) are acceptable.		
✓-10	The means by which the agribusiness person will be notified of a PAD that would affect his/her ability to sell or move food or agricultural products.		
	NUREG J.12 - Describe the means of registration and monitoring of Evacuees at Relocation Centers. Each organization shall describe the means for registering and monitoring of evacuees at relocation centers in host areas. The personnel and equipment available should be capable of monitoring within about a 12-hour period all residents and transients in the plume exposure EPZ arriving at relocation centers.		
✓-1	Radiological monitoring of evacuees, service animals, vehicles and possessions. OROs need to be capable of monitoring 20 percent of the EPZ population (including transients) assigned to each facility within a 12-hour period.	F-10 F-27 G-5	Annex F Paragraph.V.I-K Annex F Attachment 6 Annex G Paragraph IV.G
✓-2	Decontamination procedures, including the trigger/action levels that indicate the need for decontamination activities and procedures for medial attention referral.	F-6 F-10 F-27 G-5	Annex F Paragraph IV.C.1-6 Annex F.V.I-K Annex F Attachment 6 Annex G Paragraph IV.G

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✓-3	Contamination control measures, such as safety requirements, decontamination site layout, and decontamination protocol.	F-6 F-10 F-25 G-5	Annex F Paragraph IV.C.1-6 Annex F.V.I-K Annex F Attachment 5 & 6 Annex G Paragraph IV.G
✓-4	The physical layout or the area, with diagrams that show the flow and layout of operations, including a description of the means of separating contaminated, uncontaminated, and unscreened individuals, vehicles, and service animals.	F-6 F-10 F-25 G-5	Annex F Paragraph IV.C.1-6 Annex F.V.I-K Annex F Attachment 5 & 6 Annex G Paragraph IV.G
✓-5	The processes for registering evacuees and service animals in host/support jurisdictions, including documentation of monitoring for referral to temporary care facilities.	F-6 F-10 F-25 G-5	Annex F Paragraph IV.C.1-6 Annex F.V.I-K Annex F Attachment 5 & 6 Annex G Paragraph IV.G
NUREG K.3.a - Provisions for determining doses of Emergency Workers Each organization shall make provision for 24-hour-per-day capability to determine the doses received by emergency personnel involved in an nuclear accident, including volunteer. Each organization shall make provisions for the distribution of dosimeters, both self-reading (direct-reading) and permanent record devices (thermoluminescent or electronic dosimeters deemed appropriate by State authorities).			
✓-1	Methods or options for emergency worker exposure control, to include exposure from inhalation.	F-5	Annex F, Paragraph IV.A-D
✓-2	Dose limits for emergency workers.	F-6	Annex F, Paragraph IV.C.1-6
✓-3	Types and quantities of dosimeters and dosimeter chargers available per location and the number of emergency workers needing dosimetry devices.	F-5 F-17	Annex F, Paragraph IV.B.1-2 Annex F Attachment 4
✓-4	Process for reading PRDs and any early reading of PRDs (e.g., when an emergency worker's task assignment is completed or as otherwise specified.	F-5	Annex F, Paragraph IV.B
✓-5	Specific dosimetry instructions, including when, where, and to whom individuals return their dosimetry devices.	F-5	Annex F, Paragraph IV.B.1-2
✓-6	Dosimetry storage locations.	F-5 F-17	Annex F, Paragraph IV.B.1-2 Annex F Attachment 4
✓-7	Distribution of dosimetry to all emergency workers and, when permitted, members of the public needing access to the restricted area.	F-5 G-21	Annex F, Paragraph IV.B.1-2 Annex G Attachment 6
✓-8	Proper documentation of authorization to exceed administrative dose limits.	F-6	Annex F, Paragraph IV.C.1-6
NUREG K.3.b - Dosimeter Checks & Maintaining Dose Records Each organization shall ensure that dosimeters are read at appropriate frequencies and provide for maintaining dose records for emergency workers involved in any nuclear accident). Plans and Procedures shall indicate:			
✓-1	The method for obtaining dose information from emergency workers.	F-5	Annex F, Paragraph IV
✓-2	The timeframes for reading dosimeters (e.g., every 15 or 30 minutes).	F-5	Annex F, Paragraph IV
✓-3	The methods for recording doses (e.g., the form used)	F-5	Annex F, Paragraph IV

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✓-4	Appropriate reporting if administrative limits have been reached or exceeded (refer to Criterion K.4).	F-5	Annex F, Paragraph IV
NUREG K.4 - Decision Chain for Emergency Workers to incur exposures in excess of EPA PAGs Each State and local organization shall establish the decision chain for authorizing emergency workers to incur exposures in excess of the EPA General Public Protective Action Guides (i.e., EPA GAPGs for emergency workers and lifesaving activities). Plans and Procedures shall specify:			
✓-1	Dose limits (TEDE) for missions, accounting for dose from inhalation.	F-5	Annex F, Paragraph IV
✓-2	Actions taken when exposure limits have been reached	F-5 F-13	Annex F, Paragraph IV.A-E Annex Attachment 2 & 3
✓-3	Any special conditions requiring additional limitations (e.g., pregnant emergency workers).	F-6	Annex F, Paragraph IV.C.6
✓-4	Authorization to exceed pre-authorized exposure limits and management of emergency workers' exposure limit above the limits.	F-5	Annex F, Paragraph IV
✓-5	Points of Contact for authorization to remain in the hazard area and receive additional exposure (e.g., for special life-saving missions) if the allowable upper limit has been reached.	F-5	Annex F, Paragraph IV
✓-6	Information on risk and threshold doses for health effects to be provided to emergency workers volunteering for higher dose exposure.	F-5	Annex F, Paragraph IV
✓-7	Administrative Limits.	F-5	Annex F, Paragraph IV
NUREG K.5.a - Determine the need of Decontamination Each organization, as appropriate, shall specify action levels for determining the need for decontamination. Plans and Procedures shall describe:			
✓-1	Facilities for monitoring and decontaminating emergency workers, equipment and vehicles, along with operating and implementing procedures.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-2	Locations of monitoring and decontamination facilities (preferably located outside the plume EPZ).	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-3	Methods for controlling the spread of contamination at the emergency worker monitoring facilities.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-4	Radioactive contamination levels that will trigger decontamination of emergency workers, equipment, and vehicles, expressed in applicable units (e.g., cmp, mR/hr).	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-5	Survey instruments (i.e., specific appropriate equipment and sensitivity, including radiation type) used to monitor emergency workers, equipment, and vehicles.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-6	Procedures for monitoring individuals and equipment.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
NUREG K.5.b - Means of Radiological Decontamination Each organization, as appropriate, shall establish the means for radiological decontamination of emergency personnel wounds, supplies, instruments and equipment, and for waste disposal. Plans and Procedures shall address:			
✓-1	Supplies and equipment for decontamination.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-2	Decontaminating people, equipment and vehicles.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6

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✓-3	Re-monitoring people, equipment, and vehicles and recording the results.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-4	Criteria for sending individuals with fixed contamination for medical attention.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-5	Controlling the spread of contamination.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-6	Number of people needed to perform decontamination in the event of an emergency.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
✓-7	Contamination waste collection, handling, and storage.	F-7 F-26	Annex F, Paragraph IV.D.1-6 Annex F Attachement 6
NUREG L.1 - Local and Back-Up Hospital Services Each organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providng these services are adequatedly prepared to handle contaminated individuals. Plans and Procedures shall:			
✓-1	Reference written agreements or LOAs with hospitals/medical facilities.	17	Basic Plan, Appendix 1
✓-2	Reference written agreements or LOAs for technical staff that are not employed by the hospital/medical facility.	F-9	Annex F, Paragraph V.F
✓-3	Include individual facility capabilities, including the number of radiological trained medical personnel and support staff.	F-3	Annex F, Paragraph III.C.1-3
✓-4	Describe hospital/medical facility and support service operations for treating contaminated, injuried, or exposed individuals.	F-3 F-9	Annex F, Paragraph III.C.1-3 Annex F Paragraph V.G
✓-5	Describe dosimetry procedures, including record keeping and final receipt for processing.	F-3	Annex F, Paragraph III.C.1-3
NUREG L.3 - Local and Back-Up Hospital Services Each State shall develop lists indicating the location of public, private, and mililtary hospitals and other emergency services facilities within the State or contiguous States considered capable of providing medical support for nay contaminated injured individual. The listing shall include the name, location, type of facility and capacity, and any special radiological capabilities. These emergency medical services shold be able to radiologically monitor contaminated personnel, and have facilities and trained personnel able to care for contaminated injured persons. Plans and Procedures shall:			N/A
✓-1	Lists of additional hospital/medical facilities capable of providing medical support for contaminated, injured, or exposed individuals.		
NUREG L.4 - Transportation of Victims t Medical Support Facilities Each organization shall arrange for transporting victims of radiological accidents to medical support facilities. Plans and Procedures shall describe:			
✓-1	The method for determining an appropriate hospital/medial facility and the person, by title/position, responsible for the determination.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C
✓-2	Means of transporting individuals, including how to request additional emergency medical services.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C
✓-3	Communications between the transport crew and hospital / medical staff.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C
✓-4	Specifics of radiological monitoring.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C
✓-5	Contamination control measures during transport.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C
✓-6	Decontamination techniques, including trigger/action levels.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C

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✓-7	Dosimeter for the transport crew.	F-9 B-6	Annex F, Paragraph V.G Annex B Paragraph III.C
✓-8	LOAs with transportation providers (See Criterion A.3)	19-64	Basic Plan, Appendix 1
NUREG M.1 - Recovery and Re-entry Plans and Procedures Each organization, as appropriate, shall develop general plans and procedures for re-entry and recovery and describe the means by which decisions to relax protective measures (e.f., allow re-entry into an evacuated area) are reached. This process should consider both existing and potential conditions. Plans and Procedures shall describe actions during intermediate and late phases of an incident, including:			
✓-1	Continuing environmental radiation meansurements and dose assessments.	G-21 I-2 I-4	Annex G, Attachment 6 Annex I.Paragraph V.B.1-2 Annex I.V.C.4.a-c
✓-2	Establishing restricted and buffer zones.	G-21 I-2 I-4	Annex G, Attachment 6 Annex I.Paragraph V.B.1-2 Annex I.V.C.4.a-c
✓-3	Relocation.	G-21 I-3	Annex G, Attachment 6 Annex I.Paragraph V.C.3.a-b
✓-4	Controlled re-entry into restricted areas.	G-21 I-16 I-21	Annex G, Attachment 6 Annex I.Paragraph VII.A.1-9 Annex I Attachment 1
✓-5	Return of the public to previously evacuated areas.	G-21 I-17	Annex G, Attachment 6 Annex I Paragraph. VII.B.1-7
✓-6	Recovery, includiing a list of actions that may be needed and organizations responsible for carrying them out.	G-21 I-5 I-19	Annex G, Attachment 6 Annex I Paragraph.V.C.6 Annex I Paragraph. ViII.D
NUREG M.3 - Means to Notify Response Organizations of Recovery Operations being Initiated Each licensee and State plan shall specify means for informing members of the response organizations that a recovery operation is to be initiated, and of nay changes in the organizational structure that may occur. Plans and Procedures shall indicate:			N/A
✓-1	Means used to keep all involved resonse organizations (e.g., OROs with affected populations and/or areas) informed of recovery phase plans/ procedures being developed, such as remedial measures, how long they will take, and what final outcome is expected.		
✓-2	Changes that might take place in the organizational structure (e.g., the Governor being in charge under a "state of emergency" tha my then revert to a new or other authority).		
NUREG M.4 - Periodic estimation of population exposure Each plan shall establish a method for periodically estimating total population exposure. Plans and Procedures shall:			N/A
✓-1	Indentify agencies responsible for and involved in long-term dose assessment activities after an incident.		
NUREG N.1.a - Exercises An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within emergency perparedness plans and organizations. Exercises shall be conducted as set forth in NRC and FEMA rules and policy. Plans and procedures shall indicate that:			
✓-1	REP Exercises will be conducted in accordance with NRC and FEMA rules and policy.		

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NUREG N.1.b - Demonstrate all major elements of plans/procedures in eight-year exercise cycle An exercise shall demonstrate the key skills of response organizations to adequately respond to an incident scenario. The scenarios shall vary such that the major elements of emergeny plans are exercised within an eight-year exercise cycle. Each scenario variation shall be demonstrated at last once during the eight-year exercise cycle and shall include, but not be limited to, the following: a. Hostile action directed at the plant site involving the integration of offsite resources with onsite response; b. An initial classification of or rapid escalation to a Site Area Emergency or General Emergency; c. No radiological release or an unplanned minimal radiological release that requires the site to declare a Site Area Emergency, but does not require declaration of a General Emergency. For this scenario variation the following conditions shall apply: i. The licensee is required to demonstrate the ability to respond to a no/minimal radiological release scenario at last once within the eight-year exercise cycle. State, Tribal and Icoal response organizations have teh option, and are encouraged, to participate jointly in this demonstration. ii. When planning for a joint no/minimal radiological release exercise, affected State, Tribal and local jurisdictions, the license, and FEMA will identify offsite capabilities that may still need to be evaluated and agree upon appropriate alternative evaluation methods to satisfy FEMA's biennial criteria requirements. Alternative evaluation methods that could be considered during the extent of play negotiations include expansion of the exercise scenario, out of sequence activities, plan reviews, staff assistance visits or other means as described in FEMA guidance. iii. If the offsite organizations elect not to participate in teh licensee's required minimal or no-release exercise, they will still be obligated to mmet the exercise requirements as specified in 44 CFR § 350.9. Plans and procedures shall indicate that:			
✓-1	All major elements of the plans/procedures will be tested at minimum at the frequency specified by the REP Program Manual, Exhibit III-2.	15	Basic Plan, Paragraph VII.A.11 Exercises coordinated by the state. Including scenarios and critiques.
✓-2	Scenarios for exercises will be varied from exercise to exercise and include al required scenario variations during the exercise cycle.	15	Basic Plan, Paragraph VII.A.11 Exercises coordinated by the state. Including scenarios and critiques.
NUREG N.1.d - Demonstrate the mobilization of personnel and resouces in Exercises. An exercise shall include mobilization and implementation of State and local (as appropriate) personnel and resources adequate to verify the capability and response to a lare radiological release rquireing ingestion pathway protective actions beyond the 10 mile EPZ at least once every 8 years. Organizations shall specify who is responsible for the decision-making process. OROs shall reference or include the organization's procedures for making PADs and implmenting protective actions based upon PAGs that are consistent with EPA recommendations, and the process for ensuring coordination of PADs with all applicable jurisdictions. Plans/procedures shall indicate that:			
✓-1	The state and other OROs (as appropriate) will participate in an ingestion exercise at least once every 8 years.		
✓-2	States that do not have an NPP located within their borders, but are located within the 50-mile EPZ of a boarding state's NPP, must fully participate in at least one exercise at least once every 8 years at the boarding state's site(s).		

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✓-3	OROs within the 50-mile EPZ that are not part of the full-participation ingestion exercise with the state participate in an ingestion tabletop exercise or other ingestion pathway training activity at least once during the exercise cycle.		
✓-4	The number and types of personnel participating in ingestion aspectsof an exercise will be sufficient for carrying out those ingestion measures rquired by the incident scenario.		
NUREG N.2.a - Communications Drills Communications with State and local governments within the plume exposure pathway Emergency Planning Zone shall be tested monthly. Communications with Federal emerency response organizations and States within the ingestion pathway shall be tested quarterly. Communications between the nuclear facility, State and local emergency operations centers, and field assessment teams shall be tested annually. Communications drills shall also include the aspect of understanding the content of the messages. Plans/procedures shall indicate that:			Coordinated by the state
✓-1	ORO communications systems are tested monthly (including ingestion counties).	10	Basic Plan, Paragraph V.B.2
✓-2	Communications with the Federal response organizations and states within the ingestion pathway are tested quarterly.	10	Basic Plan, Paragraph V.B.2
✓-3	Communications with the NPP, ORO EOCs, and field assessment teams are tested annually.	10	Basic Plan, Paragraph V.B.2
✓-4	All communications drills include a message content check.	10	Basic Plan, Paragraph V.B.2
NUREG N.2.c - Medical Emergency Drills A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services agencies (i.e., ambulance and offsite medical treatment facility) shall be conducted annually. The offsite portions of the medical drill may be performed as part of the required biennial exercise.:			Coordinated by the state
✓-1	Medical emergency drills are conducted annually.	15 F-10	Basic Plan, Pragraph VII.A.8 Annex F Paragraph VI.C
NUREG N.2.d - Radiologiacl Monitoring Drills Plant environs and radiological monitoring drills (onsite and offsite) shall be conducted annually. These drills shall include collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping. The State drills need not be at each site. Where apropriate, local organizations shall particpate. Plans/procedures shall indicate that:			Coordinated by the state
NUREG N.2.e(1) - Health Physics Drills Health physics drills shall e conducted semi-annually which involve response to, and analysis of, simulated evelated airborne and liquid samples and direct radiation measurements in the environment. The State drills need not be at each site. Plans/procedures shall indicate that:			Coordinated by the state
✓-1	Health Physics drills are conducted semi-annually.		

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NUREG N.3 - Explanation of Exercises and Drills Each organization shall describe how exercises and drills are to be carried out to allow free play for decision-making and to meet the following objectives. Pending the development of exercise scenarios and exercise evaluation guidance by teh NRC and FEMA the secenarios for use in exercises and drills shall include, but not be limited to: a. The basic objective(s) of each drill and exercise and appropriate evaluation criteria. b. The date(s), time period, place(s), and participating organizations; c. The simulated events; d. A time schedule of real and simulated initiating events; e. A narrative summary describing the conduct of the exercise or drills to include such things as simulated casualties, offsite fire department assistance, resuce of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities; and f. A description of the arrangements for and advance materials to be provided to official observers. Plans/procedures shall indicate that:			Coordinated by the state
✓-1	Each of the items "a" through "f" above will be addressed in the scenario developed for the exercise.		
NUREG N.4 - Critique of Exercises Biennial exercises shall be evaluated and critiqued as required. FEMA evaluators shall evaluate offsite emergency response organization performance in the biennial exercise in accordance with FEMA REP exercise methodology. Plans/procedures shall state that:			Coordinated by the state
✓-1	ORO exercise performance is evaluated according to FEMA REP exercise methodology.		
NUREG N.5 - Capturing comments for implementing improvement plan and assigning corrective action responsibilities Each organization shall establish means for evaluating observer and participant comments on areas needing improvement, including emergency plan procedural changes, and for assgining responsibility for implementing correction actions. Each organization shall establish management control used to ensure that corrective actions are implemented. Plans/procedures shall describe:			Coordinated by the state
✓-1	Process for correcting issues identified during exercises.	15	Basic Plan, Paragraph IIV.A.11
NUREG O.1 - Training of Appropriate Personnel Each organization shall assure the training of appropriate personnel. Plans/ Procedures shall:			
✓-1	Identify organizations responsible for coordinating radiological training.	14	Basic Plan, Paragraph VII.A.
✓-2	Identity organizations that will ensure radiological emergency response training will be included as part of fire, police, and ambulance/rescue training, if appropriate.	14	Basic Plan, Paragraph VII.A.

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✓-3	Describe provisions to ensure availability of just-in-time training on basic radiation protection for all emergency workers, as needed.	14	Basic Plan, Paragraph VII.A.
✓-4	Describe the provisions to ensure appropriate personnel participate in training courses designed for individuals who will assist in radiological emergency response (e.g., transportation providers).	14	Basic Plan, Paragraph VII.A.
NUREG O.1.b - Participation and Receiving Training Each offsite response organization shall participate in and receive training. Where mutual aid agreements exist between local agencies such as fire, police, and ambulance/rescue, the training shall also be offered to the other departments that are members of the mutual aid districts. Plans/ Procedures shall state that:			
✓-1	Training is offered to the mutual aid district, if mutual aid plans/ procedures have been established between local agencies.	15	Basic Plan, Paragraph IIV.A.7
NUREG O.4.a - Training of Emergency Management Directors/ Coordinators Directors or coordinators of the response organizations; Plans/ Procedures shall discuss:			
✓-1	Training programs specific to directors/coordinators.	14	Basic Plan, Paragraph VII.A.
✓-2	Scope of the training programs.	14	Basic Plan, Paragraph VII.A.
✓-3	Time intervals at which these programs will be offered.	14	Basic Plan, Paragraph VII.A.
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.	14	Basic Plan, Paragraph VII.A.
NUREG O.4.b - Training of Accident Assessment Personnel Personnel responsible for accident accessment; Plans/ Procedures shall discuss:			N/A
✓-1	Training programs specific to accident assessment personnel.		
✓-2	Scope of the training programs.		
✓-3	Time intervals at which these programs will be offered.		
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.		

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NUREG O.4.c - Training Radiological Monitoring Teams Personnel responsible for radiological monitoring and radiologiacl analysist; Plans/ Procedures shall discuss:			N/A
✓-1	Training programs specific to radiological monitoring teams and radiological analysis personnel.		
✓-2	Scope of the training programs.		
✓-3	Time intervals at which these programs will be offered.		
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.		
NUREG O.4.d - Training of Police, security and fire-fighting personnel. Personnel responsible for law enforcement, traffic access and control, security, and fire-fighting; Plans/ Procedures shall state that:			Not within the capability of local government. See Nebraska Radiological Training Manual.
✓-1	Training programs specific to police, security, and firefighting personnel.		
✓-2	Scope of the training programs.		
✓-3	Time intervals at which these programs will be offered.		
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.		
NUREG O.4.f - First aid and rescue personnel; Personnel responsible for first-aid and rescue; Plans/ Procedures shall discuss:			Not within the capability of local government. See Nebraska Radiological Training Manual.
✓-1	Training programs specific to first aid and rescue personnel.	14	Basic Plan. Paragraph VII.A.7-8
✓-2	Scope of the training programs.	14	Basic Plan. Paragraph VII.A.7-8
✓-3	Time intervals at which these programs will be offered.	14	Basic Plan. Paragraph VII.A.7-8
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.	14	Basic Plan. Paragraph VII.A.7-8
NUREG O.4.g - Local support servies personnel including Civil Defense/Emergency Services personnel. Personnel responsible for local support services including emergency management and emergency services; Plans/ Procedures shall discuss:			Not within the capability of local government. See Nebraska Radiological Training Manual.
✓-1	Training programs specific to local support services including emergency management and emergency services.	14	Basic Plan. Paragraph VII.A.7-8
✓-2	Scope of the training programs.	14	Basic Plan. Paragraph VII.A.7-8
✓-3	Time intervals at which these programs will be offered.	14	Basic Plan. Paragraph VII.A.7-8
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.	14	Basic Plan. Paragraph VII.A.7-8
NUREG O.4.h - Training of Medical Support Personnel. Personnel responsible for medical support; Plans/ Procedures shall discuss:			Not within the capability of local government. See Nebraska Radiological Training Manual.
✓-1	Training programs specific to local support services including emergency management and emergency services.		
✓-2	Scope of the training programs.		
✓-3	Time intervals at which these programs will be offered.		
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.		

NUREG 0654 / FEMA REP -1 CROSS REFERENCE

NUREG O.4.j - Training of Personnel responsible for transmission of Emergency Information. Personnel responsible for the transmission of emergency information; Plans/ Procedures shall discuss:			Not within the capability of local government. See Nebraska Radiological Training Manual.
✓-1	Training programs specific to programs specific to personnel responsible for transmission of emergency information and instructions.		
✓-2	Scope of the training programs.		
✓-3	Time intervals at which these programs will be offered.		
✓-4	Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable.		
NUREG O.5 - Initial and Annual Re-Training of Personnel Each organization shall provide for the initial and annual retraining of personnel with emergency responsibilities; Plans/ Procedures shall:			Not within the capability of local government. See Nebraska Radiological Training Manual.
✓-1	State which organizations will provide initial training as well as retraining.		
NUREG P.1 - Training of Individuals responsible for planning Each organization shall provide for the training of individuals responsible for the planning effort; Plans/ Procedures shall:			
✓-1	Identify, by title/position, individuals responsible for oversight of plan/procedure development and maintenance, including the positions referred to in Criteria P.2 and P.3, and any other positions with planning responsibilities.	15	Basic Plan, Paragraph VII.B
✓-2	Specify the training regimen for the identified individuals.	15	Basic Plan, Paragraph VII.B
NUREG P.2 - Person responsible for Radiological Emergency Response Training Each organization shall identify by title the individual with the overall authority and responsibility for radiologiacl emergency response planning; Plans/ Procedures shall:			
✓-1	Identify, by title/position, the individual for radiological emergency response planning.	15	Basic Plan, Paragraph VII.B
NUREG P.3 - Emergency Planning Coordinator responsible for updating Emergency Plans Each organization shall designate an Emergency Planning Coordinator with responsibility for the development and updating of emergency plans and coordination of these plans with other response organizations; Plans/ Procedures shall:			
✓-1	Identify, by title/position, the individual for developing and updating emergency plans/procedures as well as coordinating plans/ procedures with other response organizations.	15	Basic Plan, Paragraph VII.B
NUREG P.4 - Update Plans / Procedrues as Needed Each organization shall update its plan and agreements as needed, review and certify it to be current on an annual basis. The update shall take into account changes identified by drills and exercises; Plans/ Procedures shall include:			
✓-1	Evidence that plans / procedures and agreements have been reviewed for accuracy and completeness of information and appropriate changes made within the last year (e.g., a signature page).	15	Basic Plan, Paragraph VII.A.10

NUREG 0654 / FEMA REP -1 CROSS REFERENCE

✓-2	A process for correcting plan issues identified in drills and exercises.	15	Basic Plan, Paragraph VII.A.10
✓-3	A process for periodic update of maps.	15	Basic Plan, Paragraph VII.A.10
✓-4	A process for periodic updating of ingestion pathway information (e.g., a list of food processing facilities, etc.)(See also Criterion J.11).	15	Basic Plan, Paragraph VII.A.10
NUREG P.5 - Emergency Plans to Appropriate Organizations. The emergency response plans and approved changes to the plans shall be forwarded to all organizations and appropriate individuals with responsibility for implmentation of the plans. Revised pages shall be dated and marked to show where changes have been made; Plans/ Procedures shall:			Plan Signature Page & Distribution List
✓-1	List the organizations and individuals who are given the updated plans/ procedures.		
✓-2	Identify individual(s), by title/position, responsible for distributing plans/ procedure updates and what the update cycle is.		
✓-3	Include revision bar markings or equivalent visual indicatons on revised pages to revflect where changes were made and on what date, or a summary of cahnges in cases where changes are so numerous or extensive that revision bars are impractical.		
NUREG P.6 - Plan contains detailed listing of Supporting Plans and Sources Each plan shall contain a detailed listing of supporting plans and their sources; Plans/ Procedures shall:			
✓-1	A list of supporting radiological emergency plans/procedures.	1	Basic Plan, Paragraph I
NUREG P.7 - Plan contains Appendix listing Procedures to Implement Plan Each plan shall contain an appendix listing, by title, procedures required to be implment the plan. The listing shall include the section(s) of the plan to be implmented by each procedure; Plans/ Procedures shall:			All annexs contain Action Guides Describing ipmlementing procedures
✓-1	Include a list of all implmenting procedures associated with the body of the plan. The list indicates which section(s) of the plan are implemented by each procedure.		
NUREG P.8 - Plan contains Table of Contents Each plan shall contain a specific table of contents. Plans submitted for review should be cross-referenced to these criteria; Plans/ Procedures shall contain:			
✓-1	A specific table of contents	v	Table of Contents
✓-2	A cross-reference between the plans / procedures and the NUREG-0654 / FEMA-REP-1 Evaluation Criteria.	L-1	Annex L
NUREG P.10 - Organizations provide updated Telephone Numbers Each organization shall provide for updating telephone numbers in emergency procedures at least quarterly; Plans/ Procedures shall indicate:			
✓-1	Who, by title/position, is responsible for quarterly updates of each procedure that contains telephone numbers.	14	Basic Plan Paragraph VII.A.2.

Annex M
Alert and Notification

ALERT, NOTIFICATION AND WARNING

I. PURPOSE

This Annex provides information and guidance concerning the "Alert, Notification and Warning" system used in nuclear power station incidents.

II. SITUATION

1. It is understood that an effective public response to emergency notification and warning is a function of the system design, adequate public education, and environmental circumstances at the occurrence of the initiation of the notification of an incident at a nuclear power station.

2. It is necessary that any information, but especially emergency information be readily communicated between the nuclear power stations, State and local governments to the general public.

3. Cooper Nuclear Station in case of an incident will alert and notify both State and local Warning Points.

4. The State of Nebraska 24-hour communications is located within the Nebraska State Patrol Headquarters Communications (Dispatch) Center and is considered to be the "State Warning Point".

5. The National Weather Service has the capability and participates in the local Emergency Alert System (EAS) Operational Plan 24-hours per day.

III. ASSUMPTIONS AND PLANNING FACTORS

A. Communications and warning are vital to the effective and efficient preparedness, response, and recovery activities during a nuclear power station incident.

B. Some people that are directly threatened by a nuclear power station incident hazard, may ignore, not hear, or not understand the alert and/or warning issued.

IV. ORGANIZATION/RESPONSIBILITIES

A. Nuclear Power Stations

1. The nuclear power stations have the responsibility to notify state and local governments (Warning Points) of any declared emergency classification level, i.e. NOTIFICATION OF UNUSUAL EVENT, ALERT, SITE AREA EMERGENCY, AND/OR GENERAL EMERGENCY.

2. In some situations, the affected nuclear power station may advise local government concerning recommended protective actions. See Paragraph IV.B.3 below.

B. Local Governments

1. Local governments are responsible for activating the public notification systems (sirens) and having the "Initial NWS EAS message" broadcast by the National Weather Service.

2. Implementation of notification actions will be the responsibility of the County Sheriff.

3. In addition, the applicable Risk County (Nemaha County/Washington County Emergency Management Agency) will notify the host counties of the Emergency Classification Level.

4. Responsibility for public notification rests with the local government's elected leadership after consultation or direction from state government or recommendations from the affected nuclear power station, depending on the circumstances.

C. State Government

1. State Emergency Operations Center (SEOC)

   a. Depending on the circumstances, the SEOC may have to advise local government as to the necessity for initiating local public notification/ alert.

b. Upon direction from the Governor or his authorized representative, initiate the broadcast of subsequent protective action measures based on recommendations of the Nebraska Department of Health and Human Services, Division of Public Health (DHHS, DPH), the affected nuclear power station and possibly even the Nuclear Regulatory Commission (NRC).

c. The SEOC may be required to utilize the Emergency Management Assistance Compact (EMAC) to obtain specialized or additional communications equipment to meet the needs of state and local emergency response agencies.

2. Nebraska State Patrol (NSP)

Serve as the State's 24-Hour Warning Control Point.

3. Department of Health and Human Services, Division of Public Health (DHHS, DPH)

Communicates recommendations for Protective Action Decisions.

4. Amateur Radio Communicators

Provide volunteers to service as a source of back-up communications and to relay vital information to State and local agencies.

V. CONCEPT OF OPERATIONS

A. General Information

1. The following provides the ALERT AND NOTIFICATION process for Nebraska for a nuclear power station incident.

2. The initial alert notification warning to the public is normally made by the local government at a SITE AREA EMERGENCY, but can be made by the affected nuclear power station.

3. See Attachment 1 at the end of this Annex for a flow chart for Alert and Notification.

B. Alert and Notification/Warning

1. See Attachment 2 *Overview of Procedures of EAS Activation* and Attachment 3 *Alert and Notification Warning Systems Information* at the end of this Annex, for the additional information, relationships and interface arrangements between the nuclear power stations and the state and local governments concerned in the implementation of Alert and Notification functions.

2. In the event of an incident at a nuclear power station, the Shift Supervisor in the Control Room of the affected nuclear power station will initiate the primary notification to state and local agencies and personnel.
3. The Nebraska State Patrol (NSP) as the Nebraska 24-Hour Warning Point will be the first to receive notification of a nuclear power station incident.

   a. The SEOC will also answer the direct line during the normal working hours and assume control of the direct line after the first notification.

   b. After normal working hours, the NSP will contact the Agency Duty Officer who will contact the Assistant Director, NEMA (who is acting as the Governor's Authorized Representative (GAR) and follow the GAR's instructions.

4. At the ALERT declaration

   a. The NEMA will come to a "Level 1 Operational Status" with the Assistant Director or a Division Manager, the Duty Officer or Back-Up Duty Officer and one other designated person monitoring the situation until the nuclear power station escalates or returns to normal operating condition.

   b. The National Weather Service (NWS), Valley, NE will be given a courtesy telephone call to ensure that they are prepared to broadcast the Initial NWS EAS message and/or 2nd NWS EAS message.

5. At the SITE AREA EMERGENCY (SAE) Declaration

   a. For Cooper Nuclear Station

   (1) The initial alert/warning to the public is normally made by the local government. Upon completion of the nuclear power station notification

form for an SAE, both the Nemaha, NE County Sheriff Dispatcher and the Atchinson County, MO Sheriff Dispatcher, will each activate the sirens for the entire 10-mile EPZ.

(2) The EOF State Field Liaison team at the nuclear power station emergency operations facility (EOF) confirm that the sirens have sounded or take note of those which have not sounded and pass the identifying number of each siren not working to the Risk County(ies) so they can activate "route alerting" as necessary.

(3) The Nemaha County, NE and Atchinson County Sheriff Dispatcher's each call the National Weather Service (NWS) approximately five (5) minutes after the sirens have sounded. Then using an "authentication process" request that the NWS broadcast the "Initial NWS EAS Message" at approximately 10 minutes after the sirens have sounded which alerts the public to an emergency at the affected nuclear power station and to stay tuned to their EAS station. (The message is the same for both Missouri and Nebraska). See Annex M for message content.

(4) The NWS will broadcast the "Initial NWS EAS Message" one time with EAS tones and then cycle the message for 30 minutes-before terminating the broadcast. After broadcasting the "Initial NWS EAS Message" with EAS tones the NWS will notify the State Emergency Operations Center who in turn will notify the GAR.

(5) Upon notification that the NWS has broadcast the Initial NWS EAS message, and within 15-minutes of the sirens first sounding, the GAR will instruct Nebraska Emergency Management Agency (NEMA) PIO or designated person by conference line and electronic means and when possible, to publish and release the "Response Underway" or "Security Incident" follow-up news release to news media outlets. The news media outlets are requested to repeat the information in the follow-up news release every 30 minutes until there is a change in plant status. See Annex M for news release content.

(6) In this manner, the State and locals are capable of meeting the 15-minute design objective in their initial alert and notification of the general public.

(7) The SEOC will confirm media broadcasts of the follow-up news release by listening to various TV/Radio stations.

(8) The applicable follow-up news releases contain precautionary information for the public to let them know that their government is responding to the emergency. The precautionary information is based on recommendations from the Federal Government and also based on common sense.

6. At the General Emergency (GE) Declaration

The following is the same for both nuclear power stations.

a. The Risk Counties confirm agreement with the Governor or his designated representative on a Protective Action Decision (PAD) News Release.

(1) The rational used to make an initial Protective Action Decision is based on meteorological data, plant conditions, plant recommendations, recommendations/consultations from DHHS, DPH and coordination with local risk counties and checking what neighboring states are doing.

(2) It is the policy of the State of Nebraska to evacuate affected populations prior to a radiological release as long as the risks associated with an evacuation do not outweigh the anticipated radiation effects.

(3) This rational is also used for any subsequent PADs.

(4) In the case where independent dose assessment cannot be accomplished for whatever reason by DHHS, DPH, the GAR may make PADs based on nuclear power station recommendations, plant status, and in close consultation with and recommendations from DHHS, local authorities and in coordination with neighboring states and the NRC.

b. At the declaration of a General Emergency (GE), the Risk Counties activate the sirens for their portion of the 10-mile EPZ after about five (5) minutes from the termination of the nuclear power station alert notification call of the GE declaration.

c. The EOF State Field Liaison team at the nuclear power station emergency operations facility (EOF) will confirm that the sirens have sounded or take note of those which have not sounded and pass the identifying number of each siren not working to the Risk County(ies) so they can activate "route alerting" as necessary.

d. At GE, EAS message requests to the NWS are the responsibility of the State. Upon a change in PADs or ECLs, the SEOC, at the direction of the GAR or his designated representative will contact the National Weather Service (NWS), Valley, NE and using an "authentication

process" have the NWS broadcast the "2nd NWS EAS Message" at approximately ten (10) minutes after the sirens have sounded.

e. When the 2nd NWS EAS Message has been broadcast for the first time, the NWS will inform the SEOC and the SECO will inform the GAR or his representative.

f. The GAR or his representative at the nuclear power station's EOF will then direct the NEMA PIO at the JIC by conference line and/or electronic means and when, to distribute to local media outlets the "PAD priority news release" at approximately 15-minutes after the sirens have sounded and request that the PAD priority news release be repeated every 30-minutes until there is a change in plant status.

g. Paragraphs V.B.6 through V.B.6.f above will be used should there be a change in protective action decisions as well.

VI. RAPIDLY ESCALATING INCIDENT

In the event of a rapidly escalating incident (Fast Breaker), the applicable risk counties shall sound the sirens and notify the National Weather Service to broadcast initial EAS messages (In the case of a GE EAL this responsibility falls to the State). *See message "A" for Cooper Nuclear Station.* The Dispatcher will then notify the applicable County Sheriff to distribute appropriate News Releases. Local and State actions and procedure are detailed within pre scripted News Releases. *See CNS message "M" For Cooper Nuclear Facility.* As situational information (i.e. metrological conditions, evacuation route conditions, and other impediments) is compiled and analyzed, informed determinations regarding further PADs will be made.

VII. ADMINISTRATION AND LOGISTICS

See Annex B for communications and equipment to carry out Alert, Notification and Warning duties.

VIII. TRAINING AND EXERCISING

A. Training

1. Each person in charge of an agency or organization assigning personnel to communications responsibilities for notification, alert, and warning, inside or outside the SEOC or local EOCs has the responsibility for ensuring that those individuals are adequately trained to use the equipment, familiar with the procedures their organization uses to initiate or carry out

notification, alert and warning, and understand seriousness consequences, should the notification, alert, or warning procedures not be carried out.

2. Training is offered annually by the Technical Hazards Section, Radiological Emergency Preparedness (REP), NEMA at the convenience of the organization on the overall "big picture" for notification, alert, and warning, as well as the specific unique jobs each organization carries out.

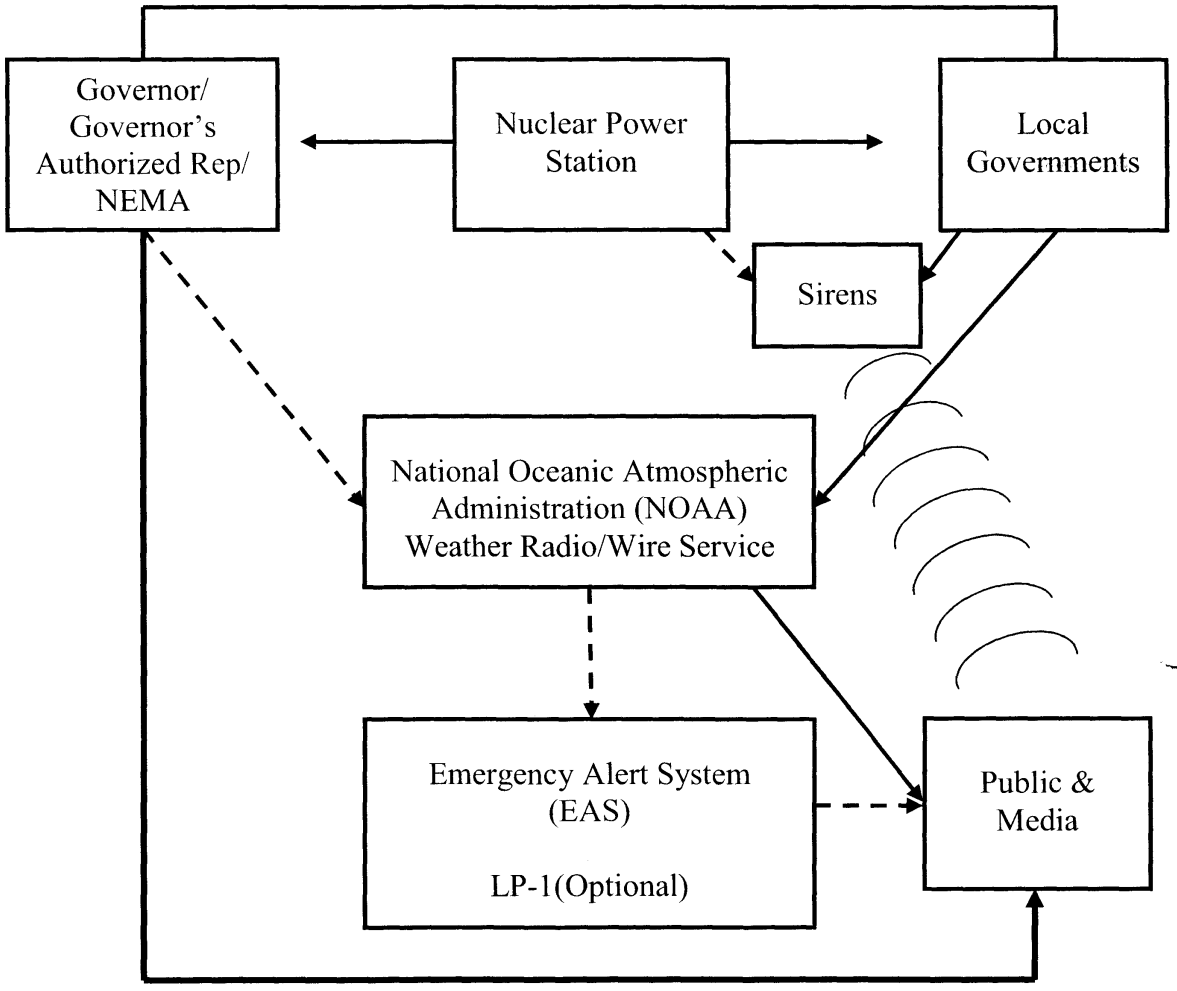
3. The training program will follow the most current version of the FEMA REP Program Manual.

B. Drills and Exercises

1. All drills and exercises will be evaluated and any follow-up activities conducted following the REP Program Manual.

2. For further information on exercising see the Basic Plan, Paragraph VIII.C.

EMERGENCY INITIAL NOTIFICATION, ALERT, AND WARNING FLOW CHART



Normal Flow of Information

Alternate Flow of Information Route

Sirens Sounding

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OVERVIEW PROCEDURES FOR EAS ACTIVATION

1. In the event of a nuclear power station incident, notification and warning information will be transmitted to the public by means of announcements over EAS Operational Area 1.

   a. The National Weather Service (NWS), Valley, NE will transmit the "Initial NWS Emergency Alert System (EAS)" message and 2nd NWS EAS messages over NOAA Weather Radio. Following the broadcast of a precautionary protective action decision or a protective action decision, the Nebraska Emergency Management Agency (NEMA) Public Information Officer (PIO) or designee will release and distribute news releases providing alert and notification information to the public.

   b. All EAS radio stations in Operational Area 1 will monitor NWS and will prepare to rebroadcast emergency information.

   c. As in all EAS activities, participation by radio stations is voluntary and is subject to the independent discretion and responsibility of the station concerned.

2. In cooperation with the NWS, Valley, NE certain local officials have been designated to request activation of the EAS. Although if necessary, state officials can also request activation of the EAS.

   a. Upon notification of a Site Area Emergency, the designated local official will contact the NWS, Valley, NE and request that the pre-recorded "Initial NWS EAS" message be broadcast due to an onsite nuclear emergency.

   b. The "Initial NWS EAS" message, as noted above, has been prepared in advance and a written copy is located as the first message in Annex M and for the Cooper Nuclear Station.

3. The local designated official, will at that time, further identify himself/ herself with a previously arranged authentication procedure and officially request the activation of the Nebraska EAS and broadcast of the aforementioned emergency message.

   a. NEMA and the Chair, Nebraska Operational Area One, have developed the authentication procedures and have distributed them accordingly,

      on a need-to-know basis, to those authorized to request activation of Nebraska EAS Operational Area One.

b. When the above authentication is complete, the NWS personnel receiving the authentication will broadcast the pre-recorded Initial NWS EAS message or will read the prepared message while it is being recorded and then broadcast it to the public via NOAA Weather Radio to the affected counties.

4. Should an EAS message other than the prepared one need to be broadcast, the following format may be used when recording the emergency announcement:

"The Emergency Alert System for Nebraska Operational Area One has been requested to be activated by _____ (Local/State Official or Nuclear Power Station Official), to inform the public of a nuclear power station incident at the _____ Cooper Nuclear Power Station."

NOTE: The Initial and 2nd NWS EAS must include specifically:

- The name of the Government entity releasing the message,
- The nuclear power station involved, and
- That an emergency exits
- Reference emergency brochures, etc. and request that the affected population stay tuned for additional information.

5. At a Site Area Emergency:

a. The Initial NWS EAS message will be broadcast one (1) time with EAS tones and then cycled for 30 minutes when the broadcast is terminated or there is a change in plant status.

b. The Initial NWS EAS Message will be followed shortly thereafter by the follow-up priority news release which will be published, released and distributed by the Nebraska Emergency Management Agency (NEMA) Public Information Officer (PIO) or designee to local news media outlets.

6. Upon completion of the above transmission procedures, the LP-1 Stations may air the fact that they will continue to broadcast information as it is received.

7. At General Emergency or a Change in Protective Action Decisions

a. When further information is needed to inform and instruct the public, the local officials sound the sirens.

b. The Governor's Authorized Representative (GAR) will, upon verification tha the sirens have sounded, instruct the Nebraska Emergency Management Agency (NEMA) to have the National Weather Service (NWS) broadcast the 2nd EAS message. Upon verification that the 2nd EAS message has been broadcast, the GAR will instruct the NEMA Public Information Officer (PIO) or designated representative to disseminate and distribute the appropriate news release, to local news media outlets, notifying the public which protective measures to take.

8. Member stations in Nebraska Operational Area One may monitor LP-1 and the NWS, and may re-broadcast 2nd NWS EAS messages as they become available as well as information from the news releases published by the NEMA PIO.

9. In the unlikely event that circumstances require notification of the public about some event not covered in already prepared news releases, a new news release can be drafted, approved and released by the NEMA PIO to the news media.

10. All prepared news releases are located in Annex M Attachment 3 for Cooper Nuclear Station.

11. Upon the receipt of a notice of termination from the activating official, the official should have the NEMA PIO or designated representative publish the appropriate news release giving a recap of the incident and stating that the emergency is now over along with any other information the public should be aware of giving a recap of the incident and stating that the emergency is now over along with any other information the public should be aware of.

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ALERT AND NOTIFICATION WARNING SYSTEMS INFORMATION

This attachment addresses relationships and interface arrangements between the nuclear power stations and the state and local governments concerned in the implementation of Alert and Notification functions. Accordingly, the major actions necessary to accomplish these functions during SITE AREA EMERGENCY and GENERAL EMERGENCY incident conditions have been identified and are arranged in this attachment as follows:

I. Receipt of Off-Site Notification
II. Public Alert (Sirens)
III. Release of Initial EAS Message that follows Initial Siren Activation
IV. Subsequent Priority News Releases
V. Access Emergency Alert System (EAS) Station
VI. Release subsequent Priority News Releases to Media Outlets.

Obviously, the above actions could take place across a variety of operational situations depending on the type of incident and the status of emergency operations centers at the time. Therefore, the above actions must each be described in terms of the following situations:

1. A SITE AREA or GENERAL EMERGENCY occurring outside normal office hours and no emergency facilities have been activated.

2. A SITE AREA or GENERAL EMERGENCY occurring during normal officer hours and no emergency facilities have been activated.

3. A SITE AREA or GENERAL EMERGENCY occurring when only the State Emergency Operations Center (SEOC) and local EOC are activated and the State EOF Field Liaison Team has not deployed.

4. A SITE AREA OR GENERAL EMERGENCY occurring when the SEOC, the station Emergency Operations Facility (EOF), and the local EOCs are activated.

I. RECEIPT OF OFF-SITE NOTIFICATION

Cooper Nuclear Power Station (See Nemaha County Radiological Emergency Response Preparedness Plans)

A. A SITE AREA of GENERAL EMERGENCY - occurring outside of normal office hours and no emergency facilities have been activated.

1. Hotline transmission made simultaneously to Nemaha or Washington County Sheriff's Dispatcher and the Nebraska State Patrol communications (relayed to the Nebraska Emergency Management Agency [NEMA] Duty Officer) are

the primary means for off-site notification. Because both activities are manned 24-hours, there is no need for a secondary action person.

2. Controlling factor: Determined by the nuclear Power Station's implementing procedure.

B. A SITE AREA OR GENERAL EMERGENCY - occurring during normal office hours and no emergency facilities have been activated.

1. Hotline transmission made simultaneously to Nemaha or Washington County Sheriff's Dispatcher and the Nebraska State Patrol communications (relayed to the NEMA Operations Manager or Duty Supervisor) are the primary means for off-site notification. Because both activities are manned 24-hours, there is no need for a secondary action person.

2. Controlling factor: Controlling factor for who makes the call for the nuclear power station is determined by the nuclear Power Station's implementing procedures.

C. A SITE AREA or GENERAL EMERGENCY - occurring when only the SEOC and local EOC are activated and the State EOF Field Liaison Team has not yet arrived:

1. Hotline transmission made simultaneously to Nemaha or Washington County Sheriff's Dispatcher and the Nebraska State Patrol communications and/or the NEMA Operations Manager or Duty Supervisor is the primary means for off-site notification. Because both activities are manned 24-hours, there is no need for a secondary action person.

2. Controlling factors:

a. Who makes the call from the nuclear Power Station is determined by the nuclear Power Station's implementing procedures.

b. Back-up or secondary notification will be accomplished by the SEOC Operations Manager to the Risk County(ies) Emergency Management Director(s).

D. A SITE AREA or GENERAL EMERGENCY - occurring when the SEOC, the State EOF Field Liaison Team, and local EOCs are activated.

1. Primary recipients of off-site notification over hotline are the Nemaha or Washington County Sheriff's Dispatcher, the GAR and the SEOC Operations Manager.

2. Controlling factors:

   a. Determined by the nuclear power station's implementing procedures.

   b. Back-up or secondary notification will be accomplished by the SEOC Operations Chief to the Risk County(ies) Emergency Management Director(s).

II. PUBLIC ALERT – At Site Area or General Emergency

Siren Activation – Action initiated by notification call received in paragraph I above.

A. For Cooper Nuclear Station (CNS):

1. Nemaha County Sheriff's Dispatcher is primary action person.

2. Notification of incident class or change in Protective Action Guidelines (PAGs) requiring the sounding of sirens will come from CNS over the hotline or regular telephone.

3. CNS has the capability to activate the sirens as a secondary performer.

4. In addition, Atchinson County, MO (as does Nemaha County) has the ability to activate the sirens within all of the 10-mile EPZ and to authorize the release of the pre-scripted and pre-recorded Initial NWS EAS message.

III. RELEASE EAS MESSAGE THAT FOLLOWS SIREN ACTIVATION

At SITE AREA or GENERAL EMERGNCY

A. For Cooper Nuclear Station (CNS)

1. The Nemaha County Sheriff's Dispatcher will initiate the activation of the EAS by telephoning the National Weather Service (NWS), Valley, NE and release the Initial NWS EAS message (pre-scripted) upon receipt of a recommendation from the affected nuclear power station. The Nemaha County Sheriff's Dispatch is manned on a 24-hour basis and has both phone and backup radio communication links with the affected nuclear power station.

2. A pre-scripted and pre-recorded Initial NWS EAS message is released by the dispatcher to the NWS who will broadcast it one (1) time with EAS tones and then cycle the message for 30 minutes without EAS tones.

3. Initial activation of the EAS will occur immediately after the sirens have sounded.

4. As a secondary measure, the SEOC may also release the pre-scripted and pre-recorded Initial NWS EAS message. Controlling factors would be the urgency of the situation coupled with the inability to contact local government.

IV. PRIORITY NEWS RELEASES

A. At SITE AREA EMERGENCY (SAE)

1. Controlling factor depends on the requirement for the affected nuclear power station to recommend immediate protective actions at a time when no state and local facilities are operational.

2. The GAR or his/her designated representative will, upon verification that the sirens have sounded and the Initial NWS EAS message has been broadcast one time with EAS tones, direct the Nebraska Emergency Management Agency (NEMA) Public Information Officer) PIO) or designated representative to disseminate and distribute the appropriate follow-up priority news release.

3. News media outlets receiving the NEMA PIO priority news release will information the public of its content.

B. At GENERAL EMERGENCY (GE)

1. Controlling factor depends on the requirement for the affected nuclear power station to recommend immediate protective actions at a time when no state and local facilities are operational.

2. The GAR or his/her designated representative will, upon verification that the sirens have sounded and the 2nd NWS EAS message has been broadcast one time with EAS tones, direct the Nebraska Emergency Management Agency NEMA PIO or designated representative to disseminate and distribute the appropriate protective action decision priority news release.

3. News media outlets receiving the NEMA PIO priority news release will information the public of its content.

V. ACCESS THE EMERGENCY ALERT SYSTEM (EAS)

A. The person making the call to the NWS, Valley, NE is accessing the EAS system and requires an authorization code for the NWS to initiate the broadcast of an EAS message.

B. Due to security controls, the activation and release of EAS messages over the EAS system is only authorized by the local government EOCs, the SEOC, and the nuclear power station concerned.

VI. RELEASE OF SUBSEQUENT PRIORITY NEWS RELEASES

The GAR or his/her designated representative will, upon verification that the sirens have sounded and the 2nd NWS EAS message has been broadcast one time with EAS tones, direct the Nebraska Emergency Management Agency NEMA PIO or designated representative to disseminate and distribute the appropriate protective action decision priority news release.

EMERGENCY ALERT SYSTEM (EAS)

AND

PRIORITY

NEWS RELEASES

FOR THE

COOPER NUCLEAR STATION

AREA

Rev. 1, 15 April 2014

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COOPER NUCLEAR STATION

EMERGENCY ALERT SYSTEM (EAS) MESSAGES AND NEWS RELEASES

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INITIAL NWS EAS MESSAGE

COOPER NUCLEAR STATION

STATES OF MISSOURI AND NEBRASKA

REQUEST NWS BROADCAST THIS MESSAGE ONE (1) TIME WITH 1050 TONES AND EAS CODES ONE (1) TIME. SET THE MESSAGE TO CYCLE FOR 30 MINUTES UNTIL EXPIRATION (OR UNTIL NEW MESSAGE IS REQUESTED TO BE BROADCAST).

NWS TO ANNOUNCE THE FOLLOWING:

On behalf of officials in the Emergency Operations Centers in Atchison County, Missouri and Nemaha County, Nebraska. This is an emergency announcement for everyone currently located within an approximate 10 mile radius of the Cooper Nuclear Station in Atchison County in Missouri and Nemaha and Richardson Counties in Nebraska.

The Nebraska Public Power District has announced that an emergency exists at the Cooper Nuclear Station, located on the Missouri River approximately three miles south of Brownville, Nebraska.

Officials encourage you to remain calm; leave telephone and cellular lines open for emergency response authorities unless you have a personal emergency. Refer to the Emergency Planning Information within your current Cooper Nuclear Station calendar.

State, local, and utility emergency personnel are responding.

PLEASE STAY TUNED TO YOUR LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

2nd NWS EAS MESSAGE

COOPER NUCLEAR STATION

STATES OF MISSOURI AND NEBRASKA

REQUEST NWS BROADCAST THIS MESSAGE ONE (1) TIME WITH 1050 TONES AND EAS CODES ONE (1) TIME. SET THE MESSAGE TO CYCLE FOR 30 MINUTES UNTIL EXPIRATION (OR UNTIL NEW MESSAGE IS REQUESTED TO BE BROADCAST).

NWS TO ANNOUNCE THE FOLLOWING:

On behalf of officials in Atchison County, Missouri and Nemaha and Richardson Counties, in Nebraska, this is a joint announcement from the Atchison County Emergency Management Agency and the Nebraska Emergency Management Agency.

This is an emergency announcement for everyone in Nebraska currently located within an area extending up to ten 10 miles from the Cooper Nuclear Station in Atchison County, Missouri and Nemaha and Richardson Counties in Nebraska.

The Nebraska Public Power District has announced a change in the status at the Cooper Nuclear Station, located on the Missouri River approximately three miles south of Brownville, Nebraska.

The change in status has resulted in protective action decisions being issued by government officials to protect persons located within an area ten miles from the Cooper Nuclear Station. Refer to the Emergency Planning Information within your current Cooper Nuclear Station calendar.

PLEASE STAY TUNED TO YOUR LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

COOPER NUCLEAR STATION

News Releases

Broadcast-Distribution Instructions

FOR THE FOLLOW-UP MESSAGES

Risk County will contact the National Weather Service (NWS) and request that the NWS broadcast the **Initial NWS EAS Message** (**Message A**) with 1050 tones one (1) time. Then set the message to cycle for 30 minutes until expiration (or until new message is requested to be broadcast).

After notification of the first NWS transmission of the Initial NWS EAS Message, the GAR or designed representative will then instruct the Nebraska Emergency Management Agency (NEMA) Public Information Officer (PIO) or designated representative to distribute the assigned **Follow-Up News Release** to all news media outlets by any means available within approximately five (5) minutes of the NWS broadcasting the "Initial NWS EAS Message".

FOR NEWS RELEASES

The GAR or designated representative will instruct the Nebraska State Emergency Operations Center (SEOC) to contact the National Weather Service (NWS) and request that the NWS broadcast the **2nd NWS EAS Message** (**Message B**) with 1050tones one (1) time. Then set the message to cycle for 30 minutes until expiration (or until new message is requested to be broadcast).

After notification of the first NWS transmission of the **2nd** NWS EAS Message, the GAR or designed representative will then instruct the Nebraska Emergency Management Agency (NEMA) Public Information Officer (PIO) or designated representative to distribute the assigned **News Release** to all news media outlets by any means available within approximately five (5) minutes of the NWS broadcasting the 2nd NWS EAS Message.

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NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

— Exercise — Exercise — Exercise — Exercise — Exercise —

FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

RESPONSE UNDERWAY – Cooper Nuclear Station

Lincoln — Nebraska Public Power District (NPPD) officials have declared a Site Area Emergency at the Cooper Nuclear Station, located on the Missouri River approximately three miles south of Brownville, Nebraska.

The emergency was declared because abnormal operating conditions are affecting the level of safety within the nuclear station and could affect the level of safety in the immediate vicinity of the nuclear station.

There are four levels of emergencies identified by the Nuclear Regulatory Commission at nuclear power stations. The most serious is a General Emergency, followed in descending order of seriousness by a Site Area Emergency, an Alert, and a Notice of Unusual Event.

The governor of the state of Nebraska has signed an emergency declaration in order to provide state assistance and expertise to the local governments in Nemaha and Richardson counties. State and local emergency personnel are responding.

The Nebraska State Emergency Operations Center (SEOC) in Lincoln has been activated. All responding agencies have been notified and are mobilizing at their respective Emergency Operations Centers, whether state or local. The state is establishing a state field liaison team at the nuclear power station's emergency operations facility to coordinate a regional response.

As a protective measure, dairy animals within the entire Emergency Planning Zone (EPZ), an approximate 10-mile radius around the nuclear station, should be sheltered and put on stored feed and protected water.

State officials have requested that the U.S. Coast Guard close the Missouri River to all traffic and recreational activities from mile marker 516 to mile marker 544. The Federal Aviation Administration has been requested to close the air space surrounding the nuclear power station, and the Union Pacific Railroad has been notified of the emergency.

Indian Cave State Park and the Steamboat Trace Trail have been closed and visitors are being directed to vacate the area.

NPPD officials report there is no immediate hazard to the public in the immediate area of the nuclear power station at this time.

People within 10 miles of the nuclear power station are requested to stay tuned to local media for emergency instructions should existing conditions deteriorate.

For more information, contact the public information hotline at **ACTUAL** **(866) 275-6773** or **EXERCISE** **(866) 688-8239.**

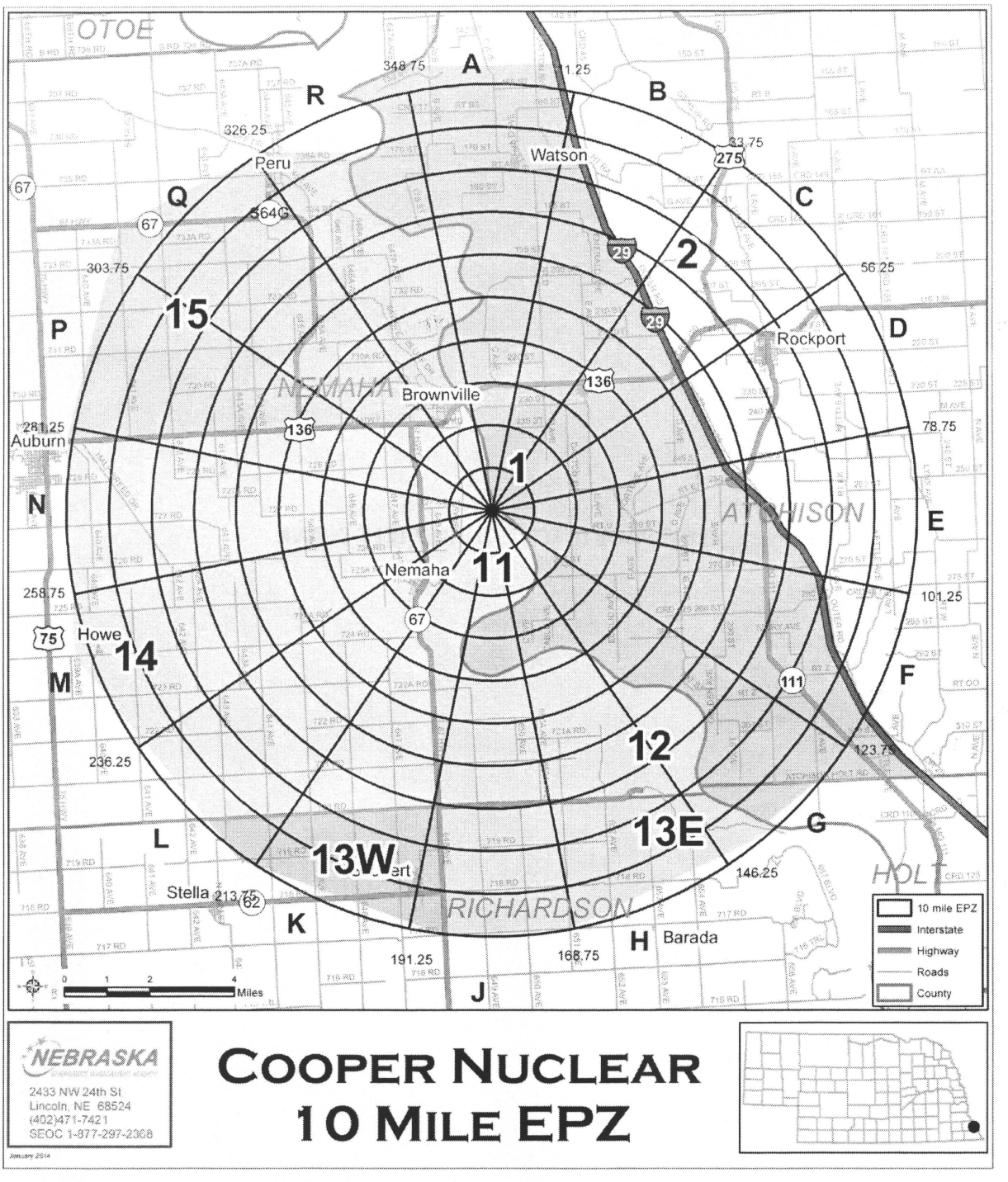
PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

###

EDITORS/STATION MANAGERS PLEASE NOTE:

We request that you broadcast/distribute this information to the general public every 30 minutes until there is a change in the nuclear power station status and additional information is available.

This news release, and others that may follow, contains emergency information important to the safety of Nebraska residents. NEMA is working with representatives from local emergency management, other states and the power station to provide the media and the public with information on necessary protective actions they may need to take. Your help in dispersing this information is vital.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January 2014
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NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

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FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SECURITY EVENT — Cooper Nuclear Station

Lincoln — Nebraska Public Power District (NPPD) officials have declared a Site Area Emergency at the Cooper Nuclear Station, located on the Missouri River approximately three miles south of Brownville, Nebraska.

State of Nebraska officials have received word that the emergency was declared because there is a security event in progress at the nuclear station and could affect the level of safety in the vicinity of the nuclear station.

The Governor of the state of Nebraska has signed an emergency declaration in order to provide state assistance and expertise to the local governments in Nemaha and Richardson Counties. State and local emergency personnel are responding.

State officials are directing that people within 10 miles of the Cooper Nuclear Station remain inside their homes and keep their doors locked. While Indian Cave State Park and the Steamboat Trace Trail are closing, visitors within the park and on the trail are being directed to remain where they are at until directed by proper authorities that it is safe to leave. People presently located in other public places, including other parks and hiking/biking trails or in recreational areas within 10 miles of the nuclear station should also stay where they are at until directed by proper authorizes that it is safe to leave.

State officials request that people stay off highways and roads in the vicinity of the Cooper Nuclear Station to allow law enforcement and other emergency personnel quick access to the scene.

People are also being asked not to use the telephone or cellular telephone to ensure circuits are available for emergency officials.

The Nebraska State Emergency Operations Center (SEOC) in Lincoln has been activated. All responding agencies have been notified and are mobilizing at their respective Emergency Operations Centers, whether state or local. The state is establishing a state field liaison team at the nuclear power station's emergency operations facility to coordinate a regional response.

State officials have requested the U.S. Coast Guard close the Missouri River to all traffic, including recreational activities from mile marker 516 to mile marker 544. The Federal Aviation Administration has been requested to close the air space surrounding the nuclear power station, and the Union Pacific Railroad has been notified not to run trains within 10 miles of the nuclear power station.

There are four levels of emergencies identified by the Nuclear Regulatory Commission at nuclear power stations. The most serious is a General Emergency, followed in descending order of seriousness by a Site Area Emergency, an Alert and a Notice of Unusual Event.
State, local and utility emergency personnel are responding.

Again, this security event is on-going and people within 10 miles of the nuclear power station are requested to go inside, lock their doors and stay tuned to local media for emergency instructions should existing conditions deteriorate.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

###

EDITORS/STATION MANAGERS PLEASE NOTE:

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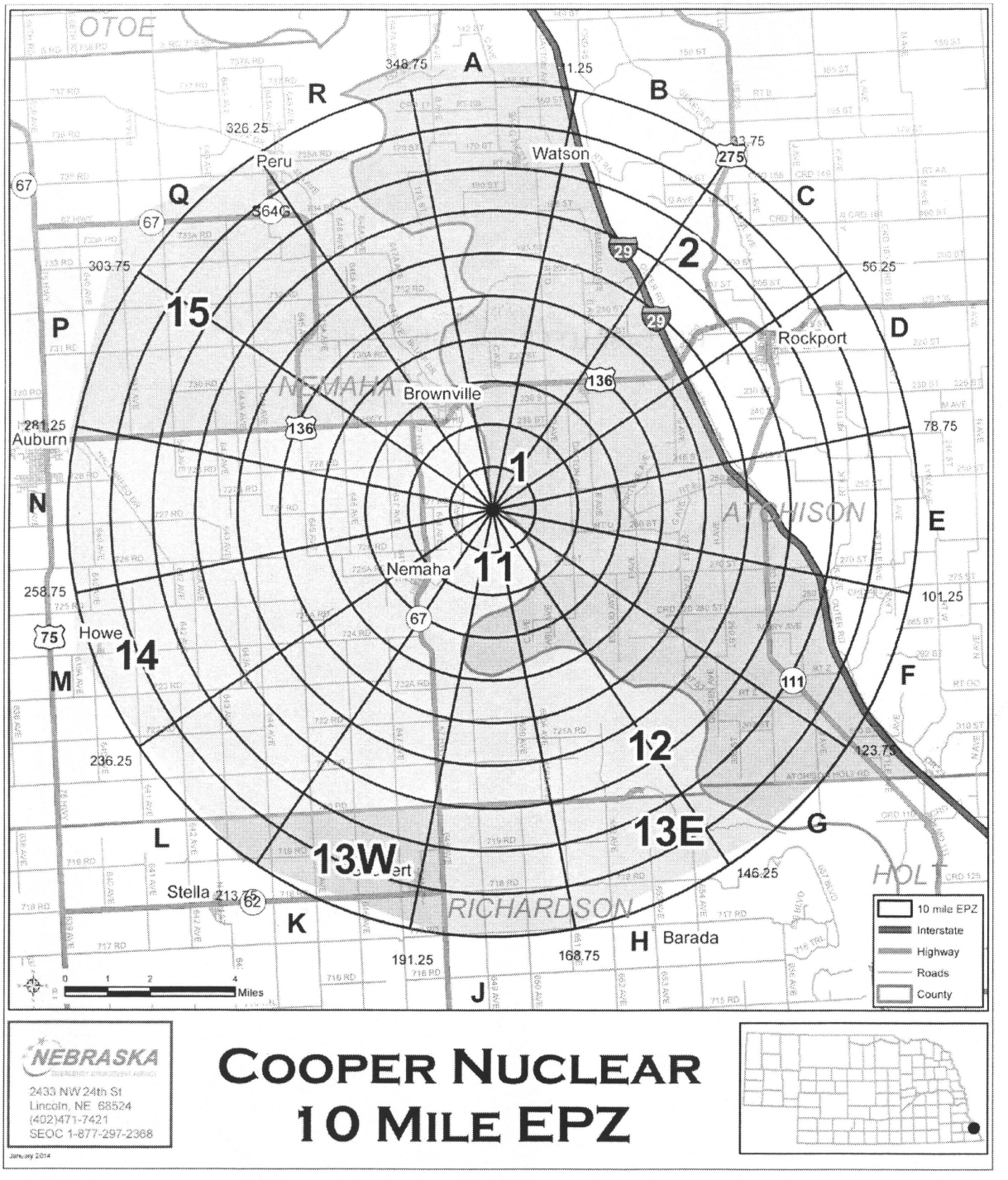
This news release, and others that may follow, contains emergency information important to the safety of Nebraska residents. NEMA is working with representatives from local emergency management, other states and the power station to provide the media and the public with information on necessary protective actions they may need to take. Your help in dispersing this information is vital.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NEBRASKA EMERGENCY MANAGEMENT AGENCY **NEWS RELEASE #___**

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

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FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11 SHELTER — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is directing that people living in the affected area identified as **Sub-Area 11** seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State and local officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should monitor local news media outlets for updates on Cooper Nuclear Station.

In Nebraska, Sub-Area 11 is bounded:

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue,

On the west from the intersection of Nemaha County Road 647 Avenue and U.S. Highway 136, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A. Then east on Nemaha County Road 725A (which turns into Nebraska Street) to the western boundary of the Nemaha village limits. Then by and on a line following the western and southern boundaries of the Nemaha village limits to the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67, south on Nebraska Highway 67 to the "Little Nemaha Bridge" on Nebraska Highway 67.

On the south from the Little Nemaha Bridge on Nebraska Highway 67, east along the north bank of the Little Nemaha River to its confluence with the Missouri River.

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville State Recreation Area and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

###

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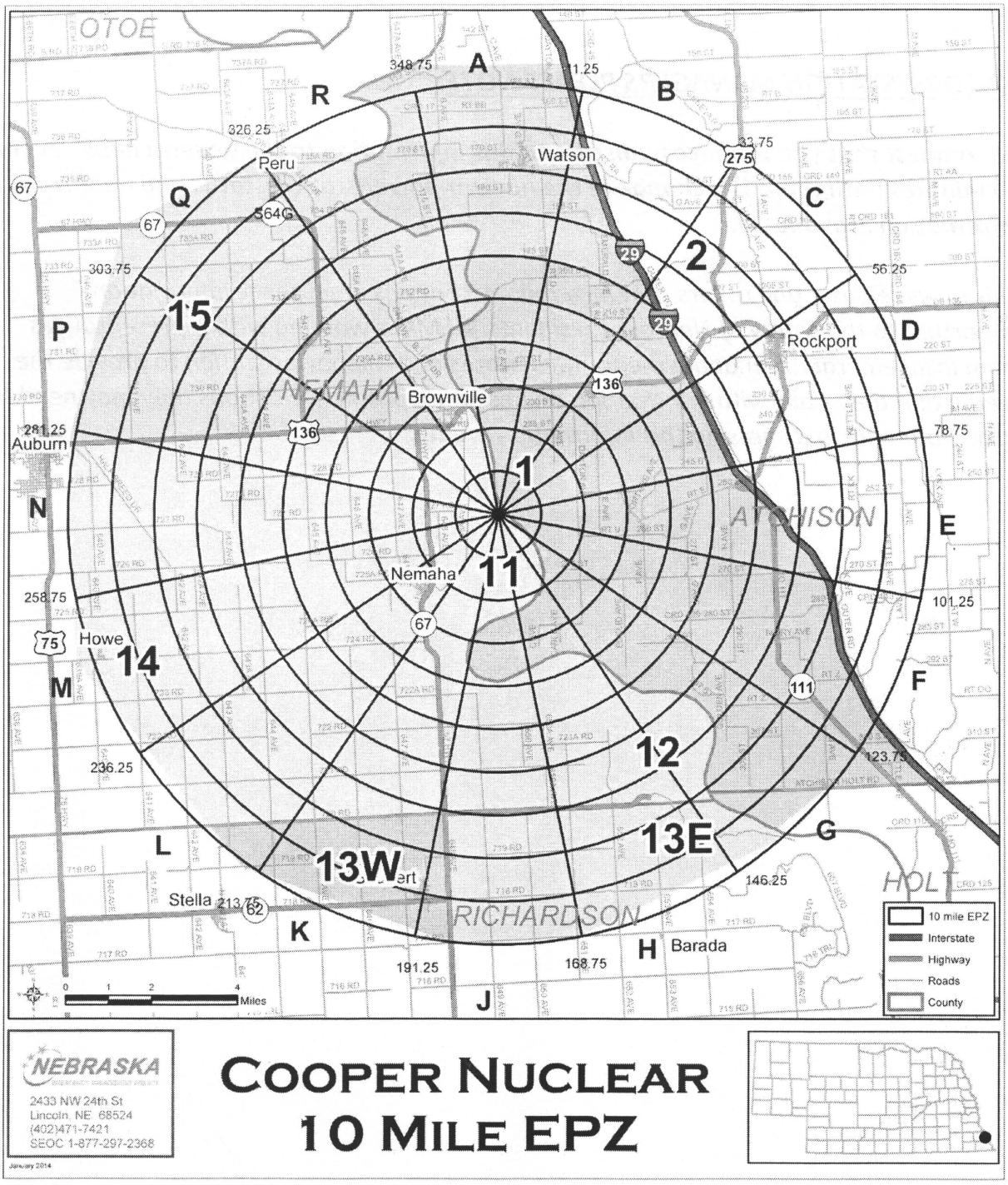
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NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

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FOR IMMEDIATE RELEASE
Date/TIME APPROVED

CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11, 12, and 13 EAST SHELTER — Cooper Nuclear Station

Lincoln— Due to conditions at the Cooper Nuclear Power Station, the Nebraska Governor's office, in conjunction with state and local emergency management officials, is directing that people living in the affected area identified as Sub-Areas 11, 12 and 13 East seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12 and 13 East are bounded:

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue,

On the west from the intersection of Nemaha County Road 647 Avenue and Highway 136, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A. Then east on Nemaha County Road 725A (which turns into Nebraska Street) to the western boundary of the Nemaha village limits. Then by and on a line following the western and southern boundaries of the Nemaha village limits to the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67, south on Nebraska Highway 67 to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson County Road 717, east on Richardson County Road 717 to the intersection of Richardson County Roads 717 and 651 Avenue. Then from the intersection of Richardson County Roads 717 and 651 Avenue by and on a line north-northeast to the southern boundary of Indian Cave State Park and the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville Recreation Area, Steamboat Trace Trail and Indian Cave State Park.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL** **(866) 275-6773** or **EXERCISE** **(866) 688-8239.**

PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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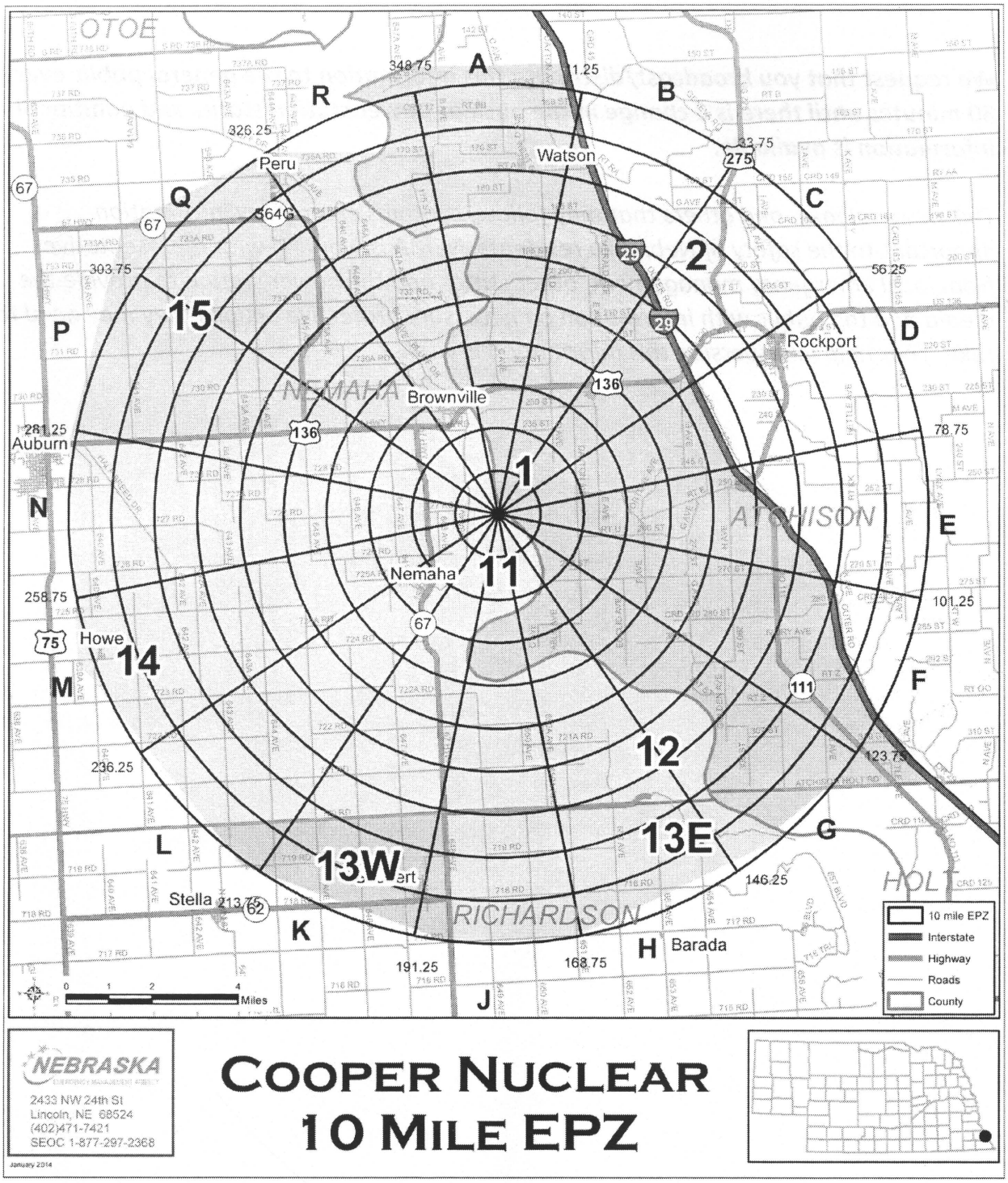
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NEBRASKA
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CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11, 12, 13 WEST AND 14 SHELTER — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska Governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12 13 West and 14** seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12, 13 West and 14 are bounded:

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad Tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county Line) and 643 Avenue and continuing southeast to the intersection of Nebraska Highway 62 and County Road 645. Then south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson County Road 717 north on Nebraska Highway 67 to the intersection of Nebraska Highway 67 and Nebraska 64E Spur (Nemaha and Richardson County Line/Road 720). Then from the intersection of Nebraska Highway 67 and Nebraska 64E Spur (Nemaha and Richardson County Line/Road 720), east on Nebraska 64E Spur (Nemaha and Richardson county Line/Road 720) to the intersection of Nebraska 64E Spur (Nemaha and Richardson county Line/Road 720) and the western border of Indian Cave State Park. Then by that stretch of the border of Indian Cave State Park north and east to the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the northern boundary of Indian Cave State Park to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha and Shubert, Brownville Recreation Area, Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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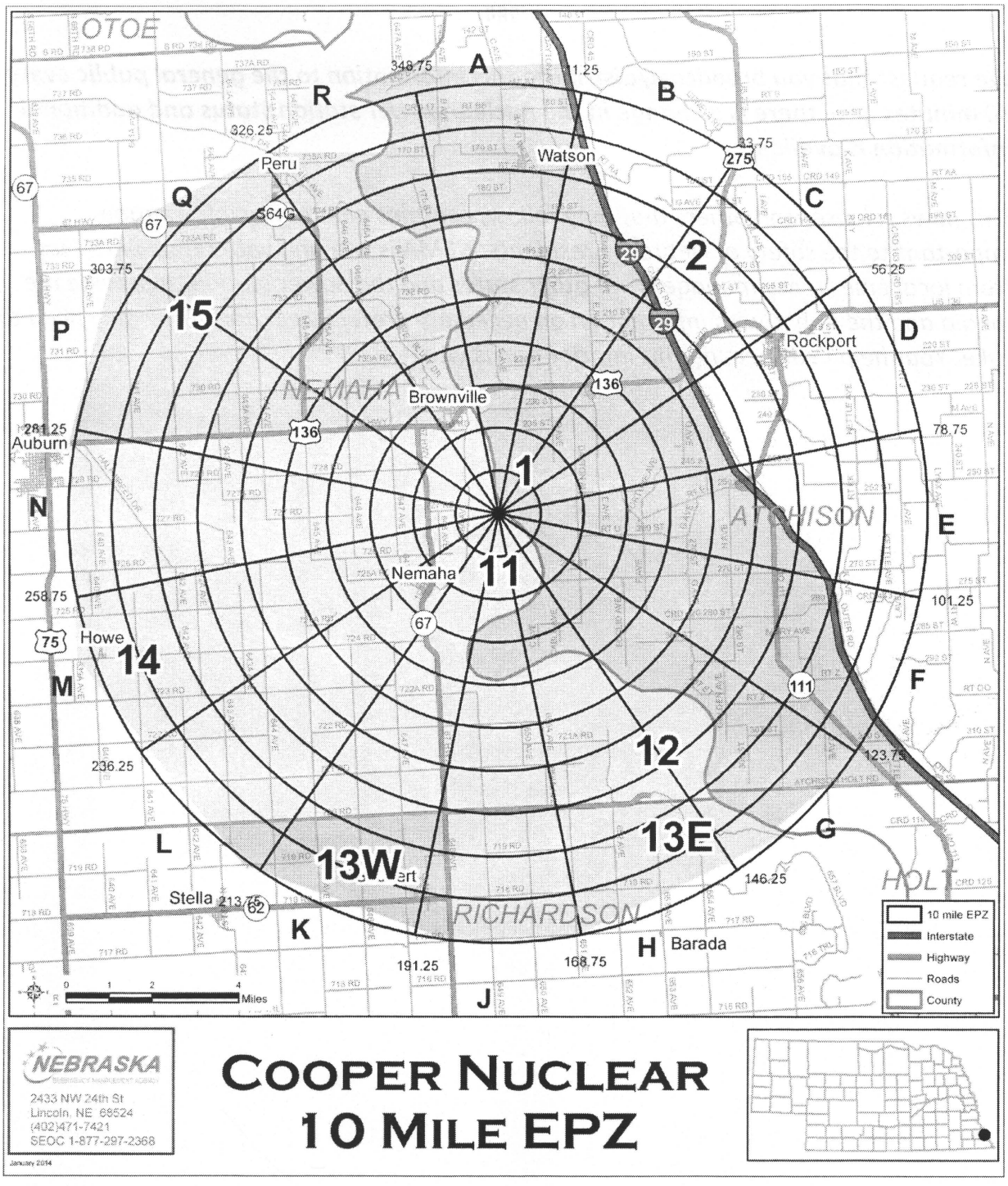
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January 2014
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NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

— Exercise — Exercise — Exercise — Exercise — Exercise —

FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SHELTER SUB-AREA 11 AND 14 — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11 and 14** seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11 and 14 are bounded:

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U S. Highway 136 to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad Tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson County Line) and 643 Avenue. Then from the intersection of County Roads 720 (Nemaha and Richardson County Line) and 643 Avenue, east on County Road 720 to the intersection of Nebraska Highway 67 and Nebraska 64E Spur (also known as the Nemaha and Richardson County Line/Road 720),

On the south From the intersection of Nebraska Highway 67 and Nebraska 64E Spur (also known as Nemaha and Richardson County Line/Road 720), north on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67. From the Little Nemaha Bridge along the north bank of the Little Nemaha River to the confluence of the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL** **(866) 275-6773** or **EXERCISE** **(866) 688-8239.**

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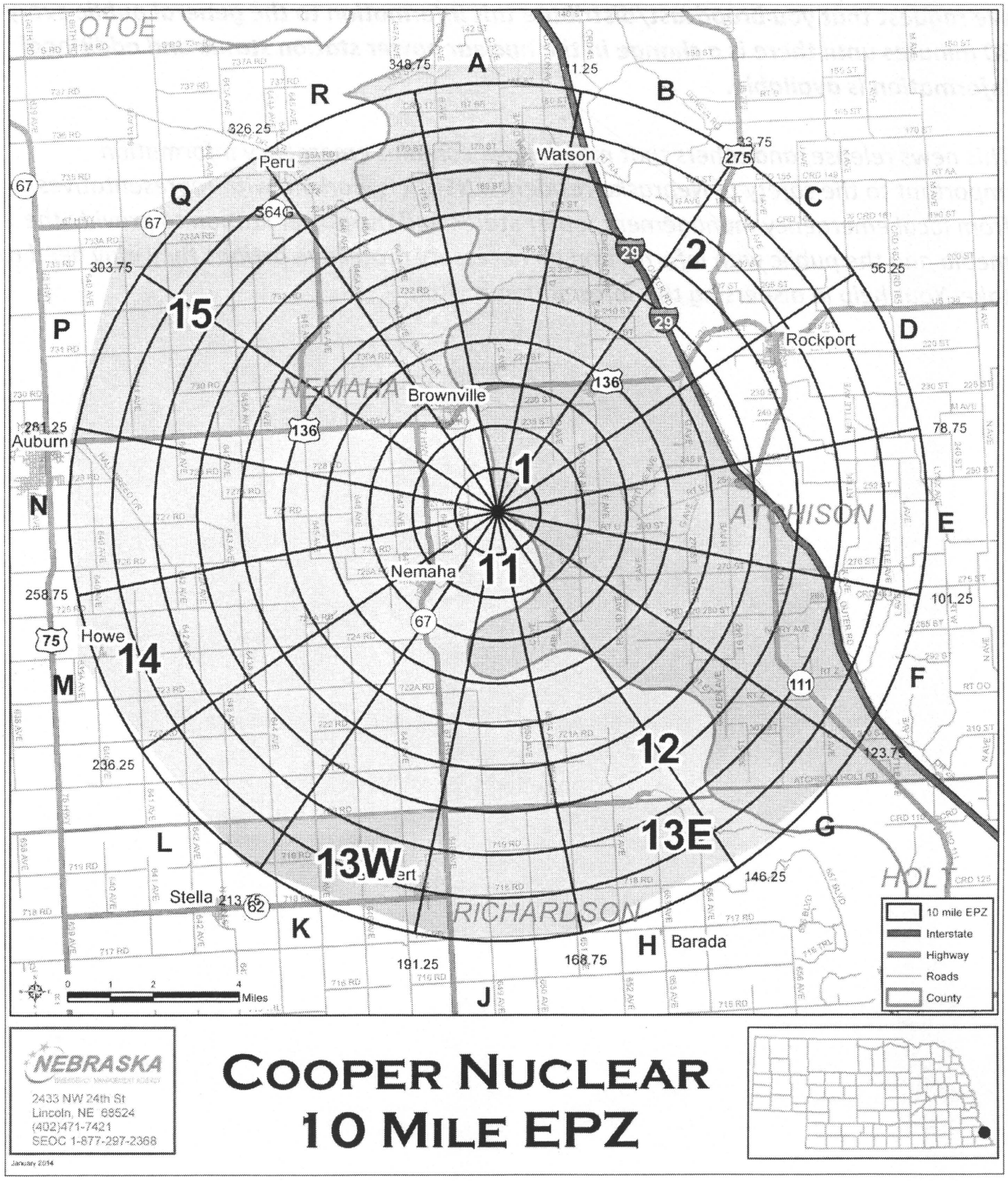
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CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SHELTER SUB-AREA 11 AND 15 — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11 and 15** seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11 and 15 are bounded:

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of Peru city limits, then from the northwestern boundary of Peru city limits, by and on a line southwest to the MCI Radio tower located on Nebraska Highway 67, two miles east of U.S. Highway 75,

On the west from the MCI Radio town located on Nebraska Highway 67, two miles east of U.S. Highway 75, by and on a line south-southwest to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the south from the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn, east on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue. From the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A, then east on Nemaha County Road 725A (which turns into Nebraska Street), to the western boundary of the Nemaha village limits. Then by and

on a line following the western and southern boundaries of the Nemaha village limits to the intersection the southern boundary of the Nemaha village limits with Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67, south on Nebraska Highway 67 to the "Little Nemaha Bridge" on Nebraska Highway 67 and east along the northern bank of the Little Nemaha River to the confluence with the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the City of Peru, the villages of Brownville and Nemaha, Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL** **(866) 275-6773** or **EXERCISE** **(866) 688-8239.**

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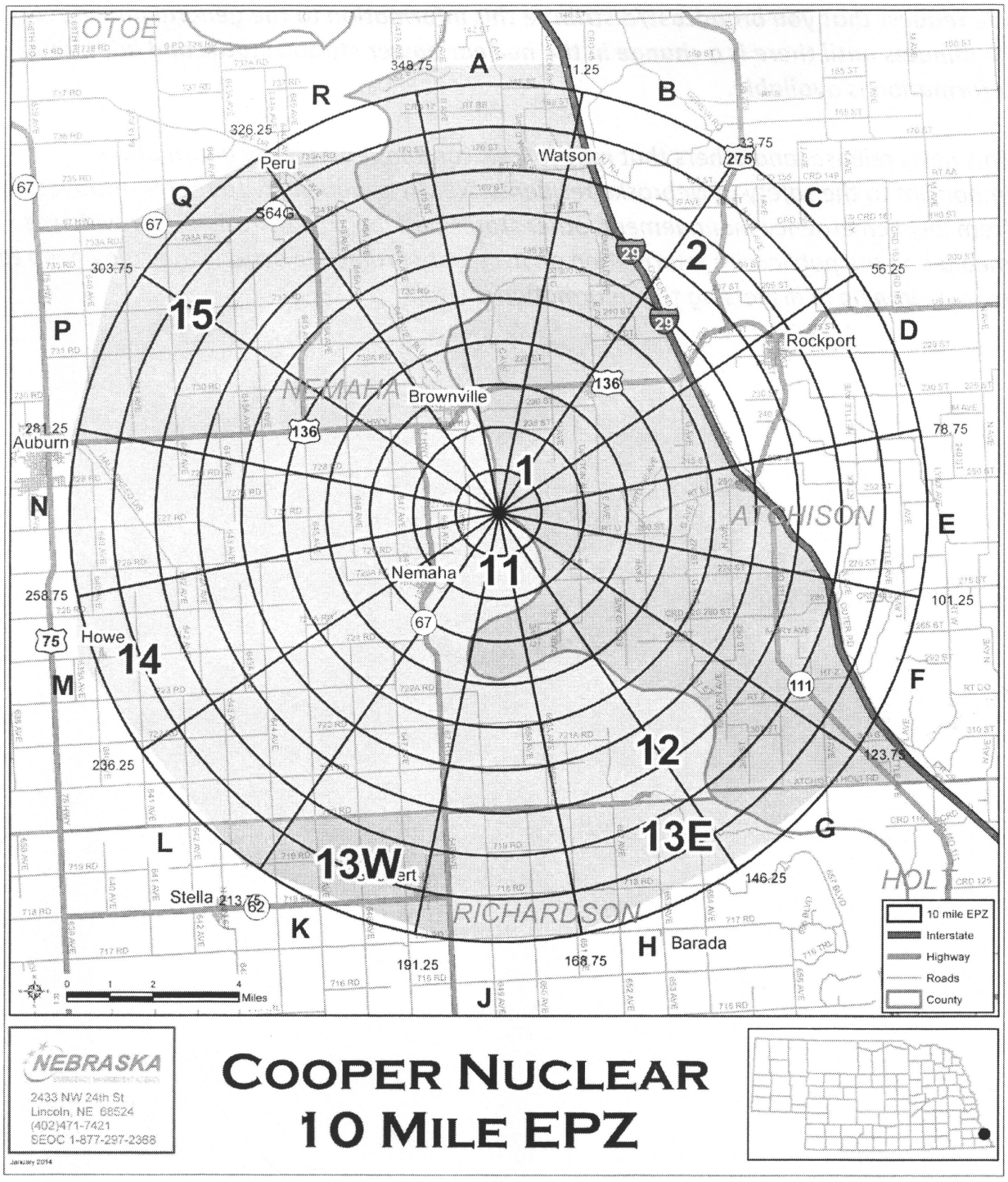
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SUB-AREA 11, 12, 13 EAST, 13 WEST AND 14 SHELTER — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12, 13 East, 13 West and 14** seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12, 13 East, 13 West and 14 are bounded:

On the north from the west bank Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U S. Highway 136 to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad Tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, and continuing southeast to the

intersection of Nebraska Highway 62 and County Road 645. Then south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717.

On the south from the intersection of Richardson County Road 717 and Nebraska Highway 67, east on Richardson County Road 717 to the intersection of Richardson County Road 651 Avenue and Richardson County Road 717, then from the intersection of Richardson County Road 651 Avenue and Richardson County Road 717, by and on a line north-northeast to the southern boundary of Indian Cave State Park and the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Shubert, Brownville Recreation Area, Steamboat Trace Trail and Indian Cave State Park.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
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9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
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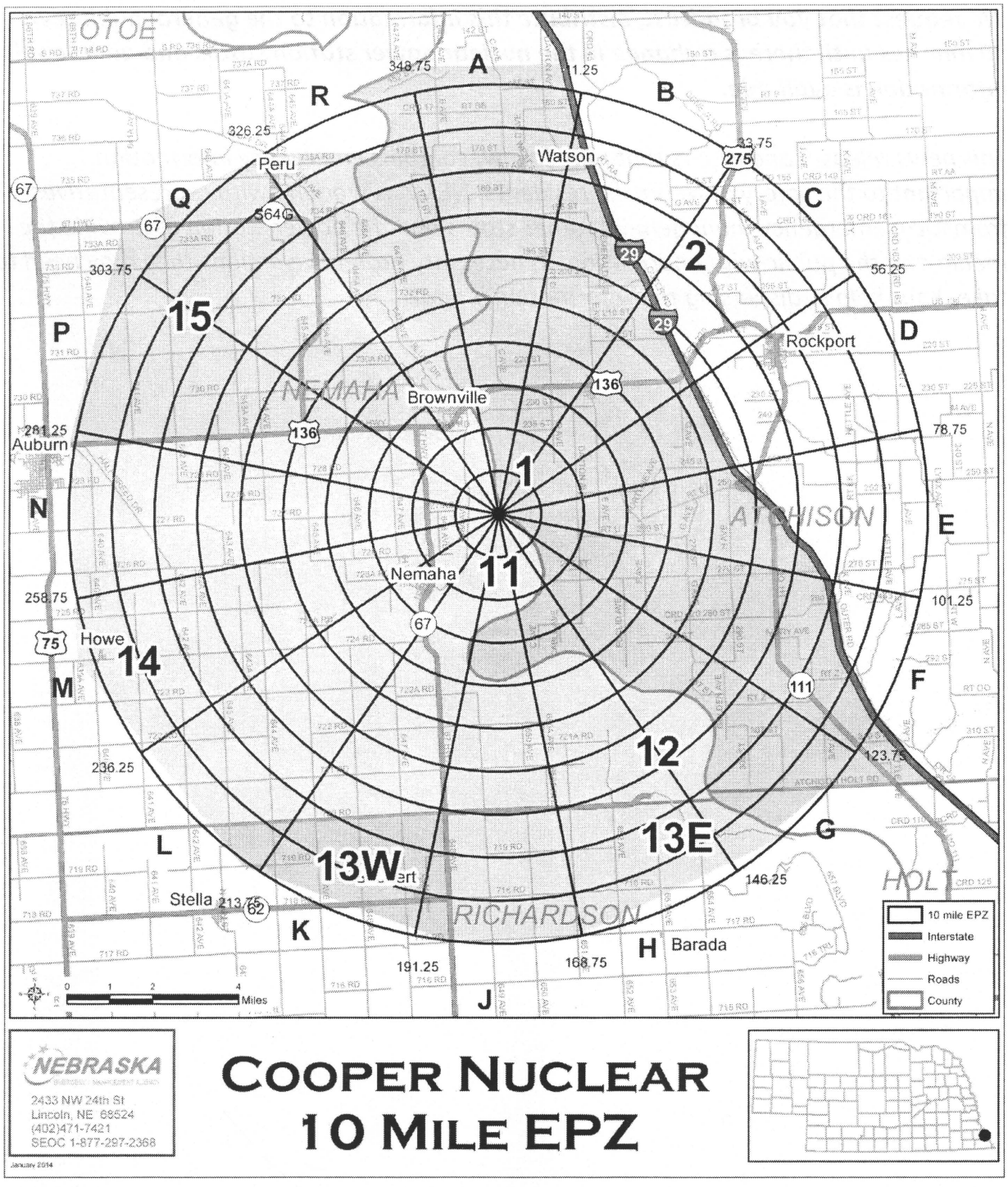
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SUB-AREA 11, 13 WEST AND 14 SHELTER —Cooper Nuclear Station

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In Nebraska, Sub-Areas 11, 13 West & 14 are bounded:

On the north from the west bank Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue and continuing southeast to the intersection of Nebraska Highway 62 and County Road 645. Then south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson County Road 717, north on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67, from the Little Nemaha Bridge on Nebraska Highway 67, east along the north bank of the Little Nemaha River to its confluence with the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Shubert, Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
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5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
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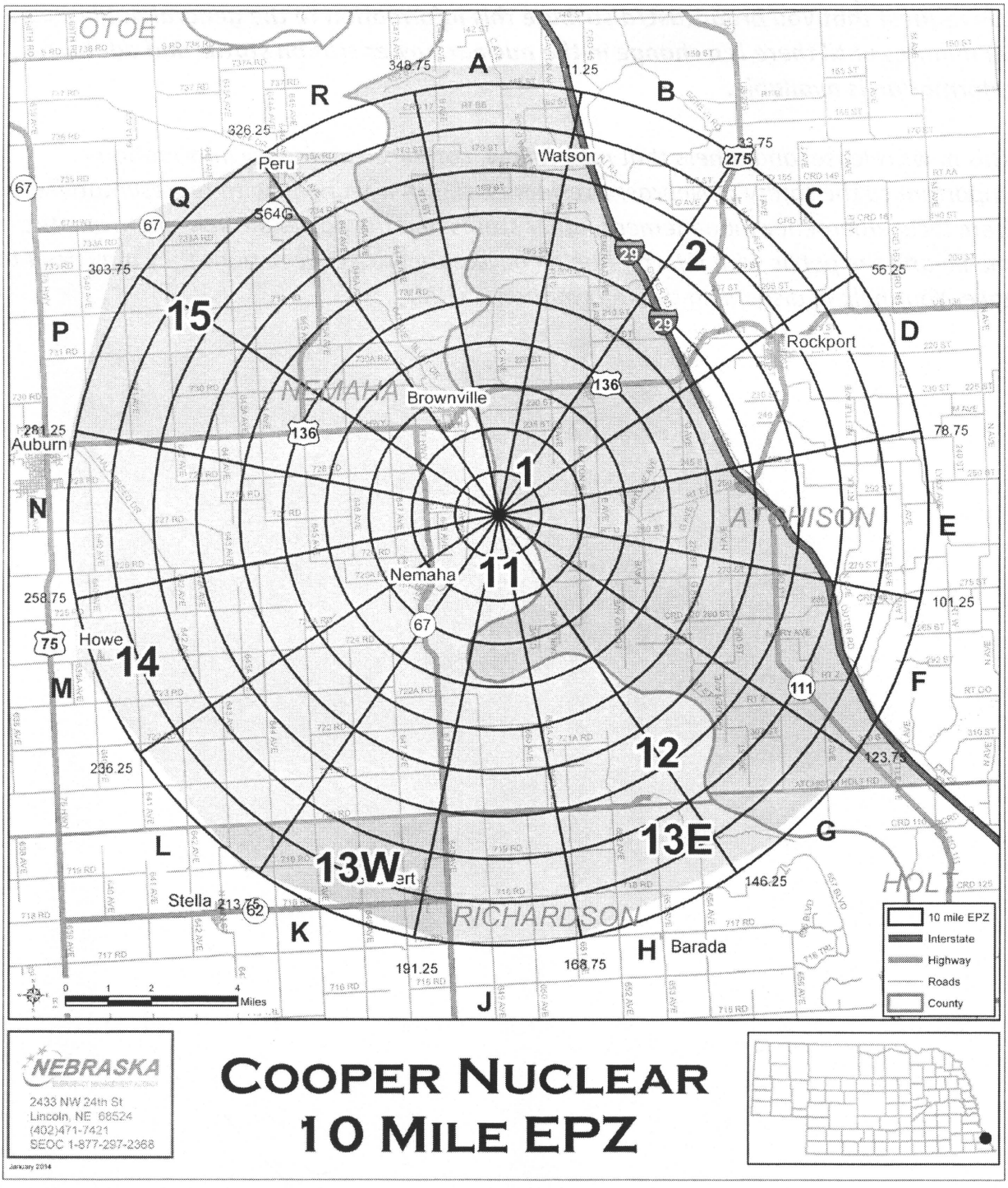
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State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station

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On the north from the Missouri River, by and on a line with the northern boundary of Peru city limits, then from the northwestern boundary of Peru city limits, by and on a line southwest to the MCI Radio tower located on Highway 67, two miles east of Highway 75,

On the west from the MCI Radio town located on Highway 67, two miles east of Highway 75, by and on a line south-southwest to the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724 southeast through the intersection of County Road 720 (Nemaha and Richardson county line) and County Road 643 Avenue,

On the south from the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, east on County Road 720 to the intersection of Nebraska Highway 67 and Nebraska 64E Spur (also known as Nemaha and Richardson county line/Road 720). Then north on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67. From the Little

Nemaha Bridge along the north bank of the Little Nemaha River to the confluence of the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Shubert, Brownville State Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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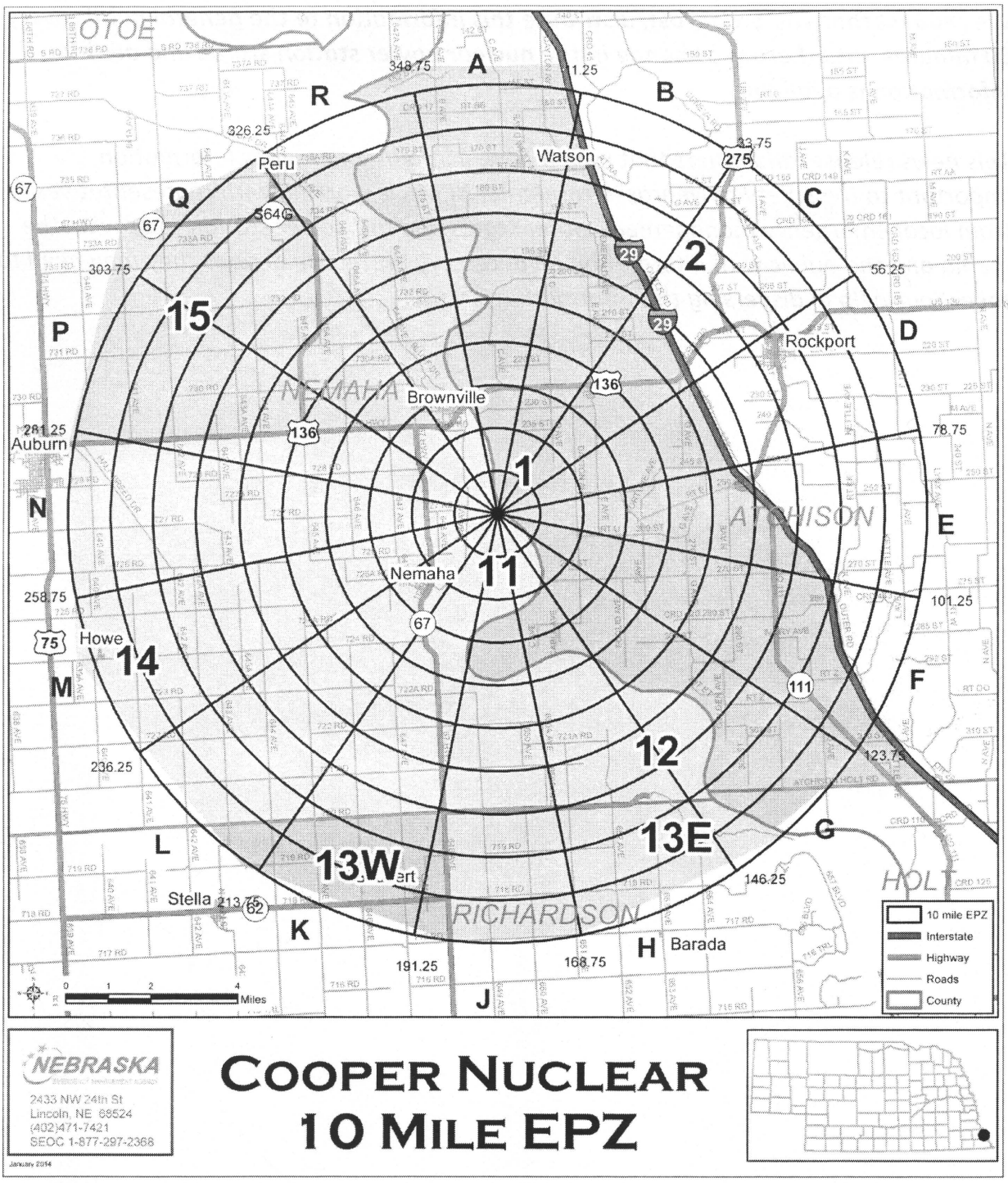
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(402)471-7421
SEOC 1-877-297-2368
January 2014
COOPER NUCLEAR
10 MILE EPZ

NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

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FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11, 12, 13 EAST, 13 WEST, 14 AND 15 SHELTER — COOPER NUCLEAR STATION

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12, 13 East, 13 West, 14 and 15** seek shelter immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12, 13 East, 13 West, 14 and 15 are bounded:

On the north from the Missouri River by and on a line with the northern boundary of Peru city limits, then from the northwestern boundary of Peru city limits, by and on a line southwest to the MCI Radio tower located on Highway 67, two miles east of Highway 75,

On the west from the MCI Radio town located on Highway 67, two miles east of Highway 75, by and on a line SSW to the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn. Then from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then by and on a line from the intersection of the Union Pacific Railroad Tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, continuing southeast to the intersection of Nebraska Highway 62 and Richardson County Road

645 Avenue. From the intersection of Nebraska Highway 62 and Richardson County Road 645 south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson Country Road 717, east on Richardson County Road 717 to the intersection of Richardson County Roads 717 and 651 Avenue. Then from the intersection of Richardson County Roads 717 and 651 Avenue, by and on a line north-northeast to the southern boundary of Indian Cave State Park and the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the southern boundary of Indian Cave State Park to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Shubert, Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm. Staying inside will reduce exposure to radiation caused by a short release of radioactive gas.
2. Persons outside should immediately seek indoor shelter, preferably the basement or cellar. Close all windows and doors. Turn off fans and air conditioning that require outside air. Close any other air intakes.
3. Use a respiratory protection device if necessary to go outdoors. This may include a cotton handkerchief folded to provide eight layers and placed over the mouth and nose. The handkerchief should be **dry** and held snugly in place to ensure its effectiveness.
4. Anyone who has been outside should wash hands and face as a minimum precaution, especially before eating or handling food. If possible, take a shower with cool or lukewarm water and change the clothes worn while outside. Place the clothes worn outside in a plastic bag and store away from the kitchen/dining areas, living spaces and bedrooms.
5. Cover all open food containers.
6. Keep phone lines open for emergency communications.
7. Refer to the emergency planning information located in the Cooper Nuclear Station calendar for additional information.
8. Stay inside until officially notified it is safe to go outside.
9. If outside at a recreational area or traveling through this area, leave the area immediately or seek indoor shelter.
10. If in the above described area where a recommendation to shelter has been given, cease attempts to place dairy animals on stored feed and water and take shelter immediately.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

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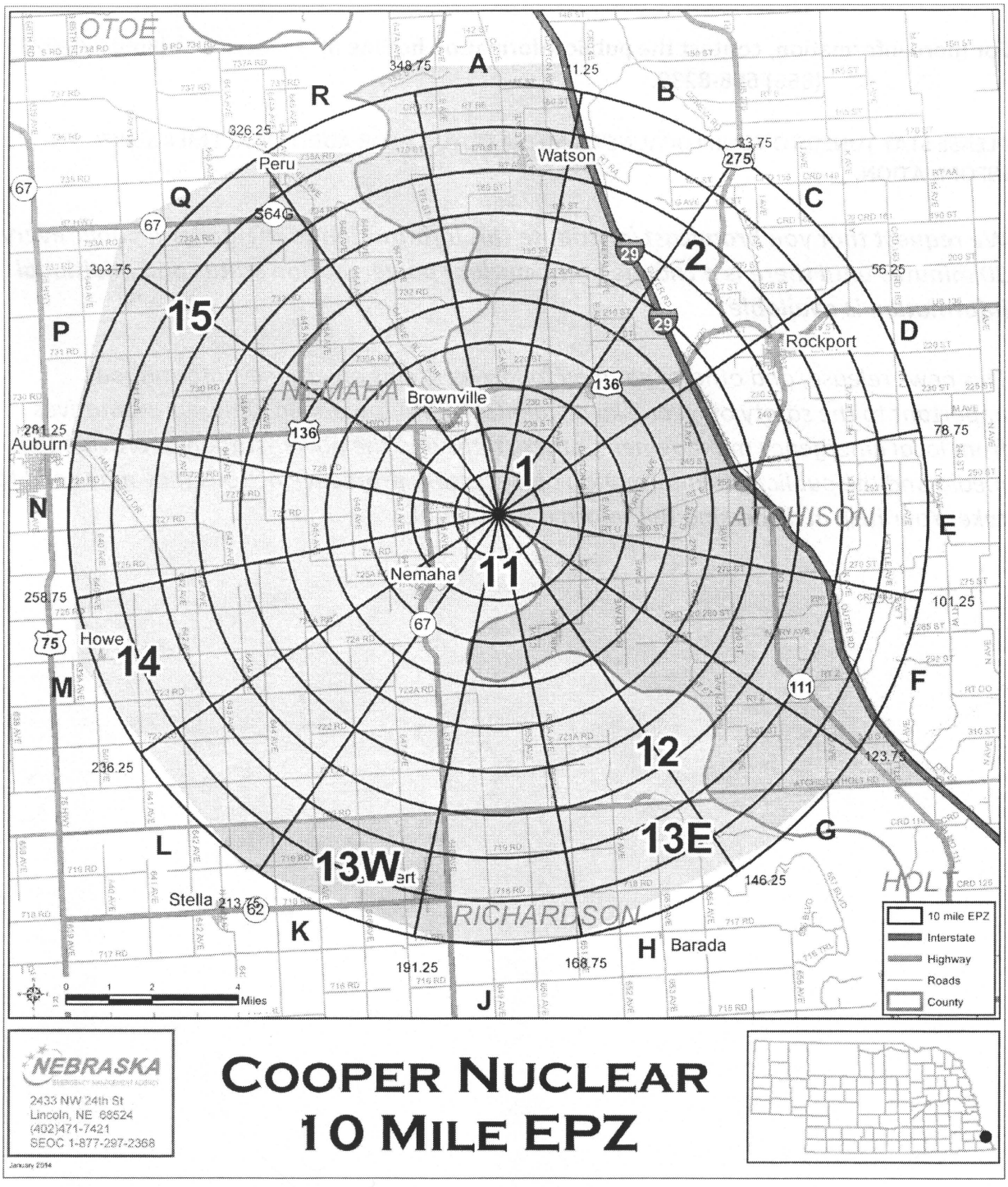
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CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11 EVACUATION — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Area 11** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Area 11 is bounded (boundaries include people living on both sides of the roads mentioned):

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue,

On the west from the intersection of Nemaha County Road 647 Avenue and U S. Highway 136, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A. Then east on Nemaha County Road 725A (which turns into Nebraska Street) to the western boundary of the Nemaha village limits. Then by and on a line following the western and southern boundaries of the Nemaha village limits to the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67, south on Nebraska Highway 67 to the "Little Nemaha Bridge" on Nebraska Highway 67,

On the south from the Little Nemaha Bridge on Nebraska Highway 67, east along the north bank of the Little Nemaha River to its confluence with the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.
2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Area 11 should use U.S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement officials will direct you to the Reception Center at the Falls City Middle School, at 1415 Morton Street, in Falls City, Nebraska.

All evacuees should report to the Reception Center at Falls City, even if they are planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

Those residents in sub-areas not affected by this information should go indoors and stay tuned to local media for further information.

Those without access to a vehicle for evacuation and who cannot arrange a ride with relatives or neighbors, or those in need of an ambulance or wheelchair van, should call the Nemaha County Emergency Operations Center at 402-274-2552 and transportation will be arranged.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

PLEASE STAY TUNED TO LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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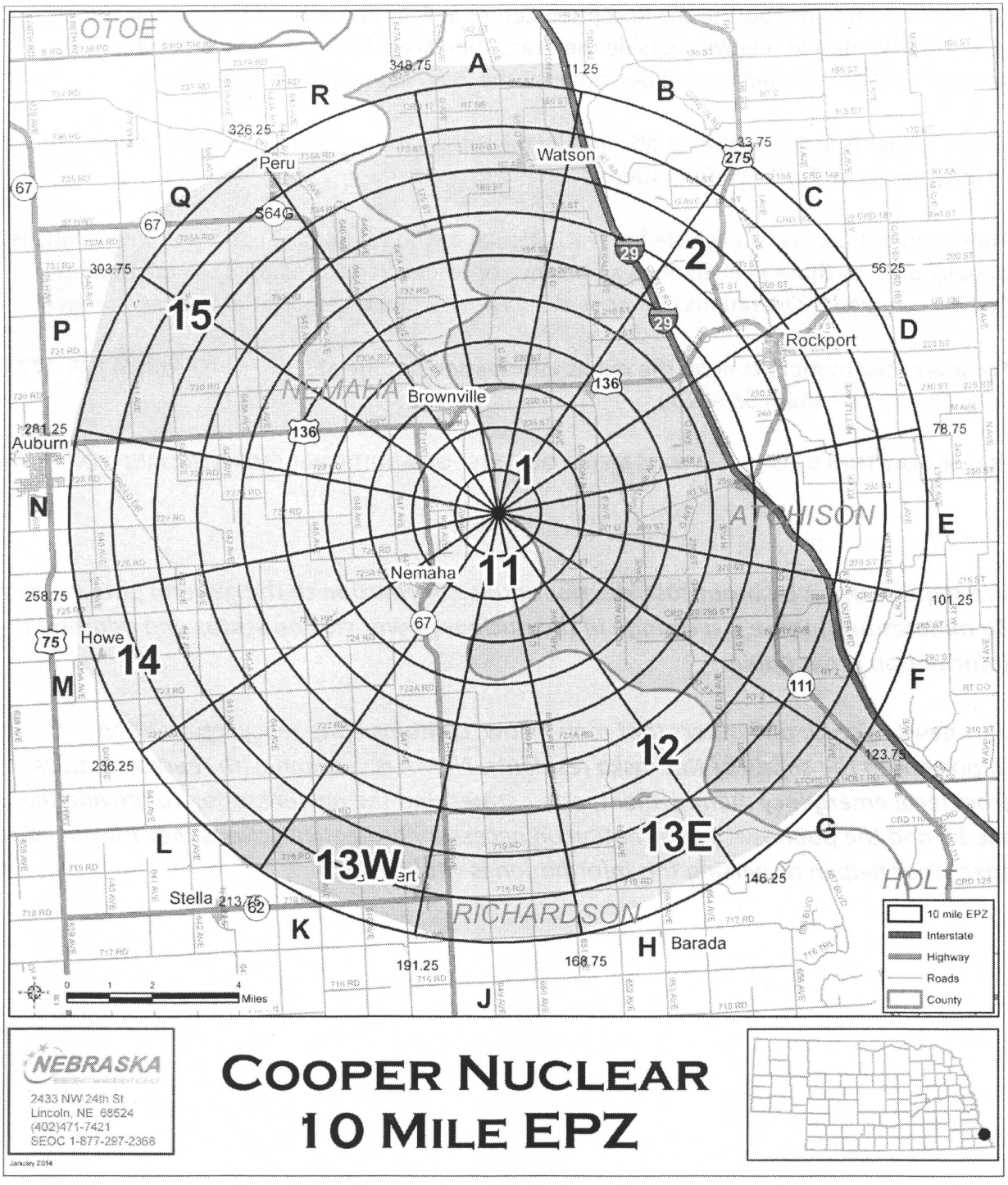
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CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREAS 11, 12 AND 13 EAST EVACUATION — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12 and 13 East** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12, and 13 East are bounded (boundaries include people on both sides of the roads mentioned):

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue,

On the west from the intersection of Nemaha County Road 647 Avenue and Highway 136, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A. Then east on Nemaha County Road 725A (which turns into Nebraska Street) to the western boundary of the Nemaha village limits. Then by and on a line following the western and southern boundaries of the Nemaha village limits to the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67,

south on Nebraska Highway 67 to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson County Road 717, east on Richardson County Road 717 to the intersection of Richardson County Roads 717 and 651 Avenue. Then from the intersection of Richardson County Roads 717 and 651 Avenue by and on a line north-northeast to the southern boundary of Indian Cave State Park and the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville Recreation Area, Steamboat Trace Trail and Indian Cave State Park.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.
2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside, use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Areas 11, 12 and 13 East, should use U.S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement officials will be directing people to the Reception Center at the Falls City Middle School, at 1415 Morton St., in Falls City, Nebraska.

All evacuees should report to the Reception Center at Falls City, even if they are planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

Those residents in sub-areas not affected by this information should go indoors and stay tuned to local media for further information.

Those without access to a vehicle for evacuation and who cannot arrange a ride with relatives or neighbors, or those in need of an ambulance or wheelchair van, should call the Nemaha County Emergency Operations Center at 402-274-2552 and transportation will be arranged.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

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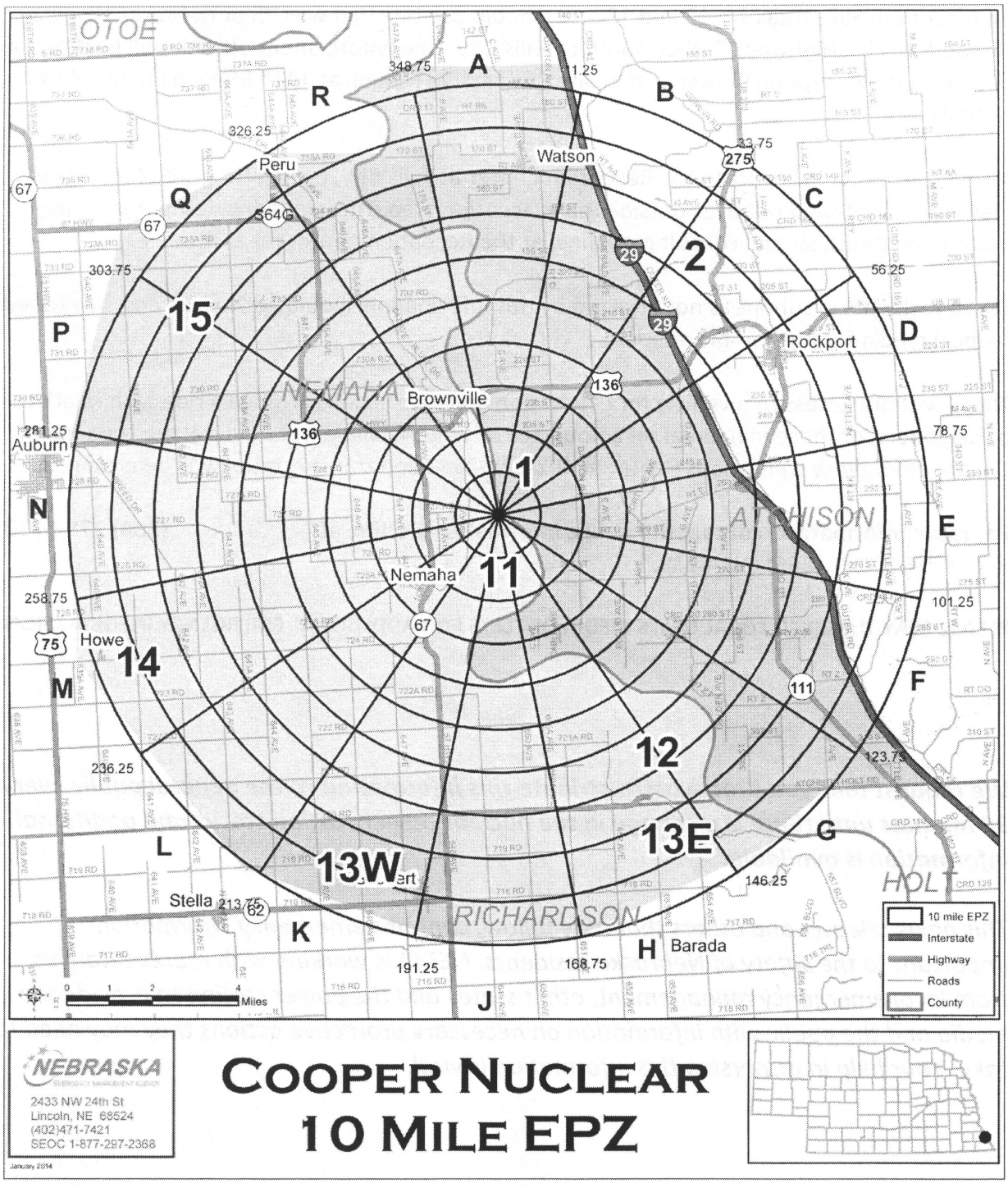
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SUB-AREA 11, 12, 13 WEST AND 14 EVACUATION
Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12 13 West and 14** evacuate immediately Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

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In Nebraska, Sub-Areas 11, 12, 13 West and 14 are bounded (boundaries include people living on both sides of the roads mentioned:

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue,

On the west from the intersection of Nemaha County Road 647 Avenue and U S. Highway 136, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A. Then east on Nemaha County Road 725A (which turns into Nebraska Street) to the western boundary of the Nemaha village limits. Then by and on a line following the western and southern boundaries of the Nemaha village limits to the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67, south on Nebraska Highway 67 to the "Little Nemaha Bridge" on Nebraska Highway 67,

On the south from the Little Nemaha Bridge on Nebraska Highway 67, east along the north bank of the Little Nemaha River to its confluence with the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville Recreation Area, and Steamboat Trace Trail.

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3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside, use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed, should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Areas 11, 12, 13 West and 14 should use U. S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement officials will be directing people to the Reception Center at the Falls City Middle School, at 1415 Morton St., in Falls City, Nebraska.

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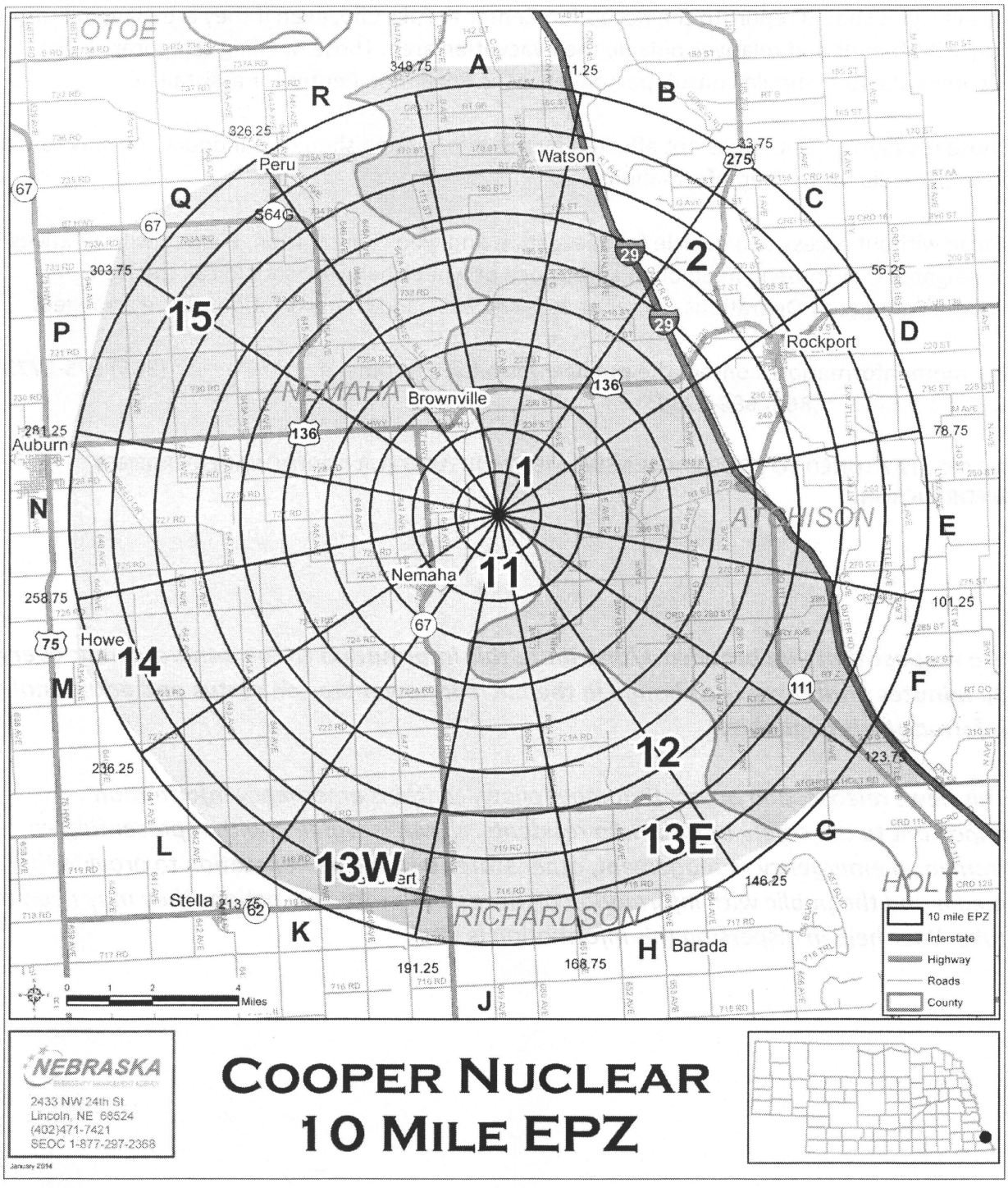
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NEBRASKA
2433 NW 24th St
Lincoln, NE 68524
(402)471-7421
SEOC 1-877-297-2368
January 2014
COOPER NUCLEAR
10 MILE EPZ

NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

— Exercise — Exercise — Exercise — Exercise — Exercise —

FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11 AND 14 EVACUATION— Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11 and 14** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11 and 14 are bounded (boundaries include people living on both sides of the roads mentioned):

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U. S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue. Then from the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, east on County Road 720 to the intersection of Nebraska Highway 67 and Nebraska 64E Spur (also known as the Nemaha and Richardson county line/Road 720),

On the south From the intersection of Nebraska Highway 67 and Nebraska 64E Spur (also known as the Nemaha and Richardson county line/Road 720), north on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67. From the Little Nemaha Bridge along the north bank of the Little Nemaha River to the confluence of the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville and Nemaha, Brownville Recreation Area and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.
2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed, should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Areas 11 and 14 should use U. S. Highway 75 or Nebraska Highway 67 south to U. S. Highway 73, then south to Falls City. Law enforcement officials will be directing people to the Reception Center at the Falls City Middle School, at 1415 Morton St., in Falls City, Nebraska.

All evacuees should report to the Reception Center at Falls City, even if they are planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

Those residents in sub-areas not affected by this information should go indoors and stay tuned to-local media for further information.

Those without access to a vehicle for evacuation and who cannot arrange a ride with relatives or neighbors, or those in need of an ambulance or wheelchair van, should call the Nemaha County Emergency Operations Center at 402-274-2552 and transportation will be arranged.

For more information, contact the public information hotline at **ACTUAL** **(866) 275-6773** or **EXERCISE** **(866) 688-8239.**

PLEASE STAY TUNED TO YOUR LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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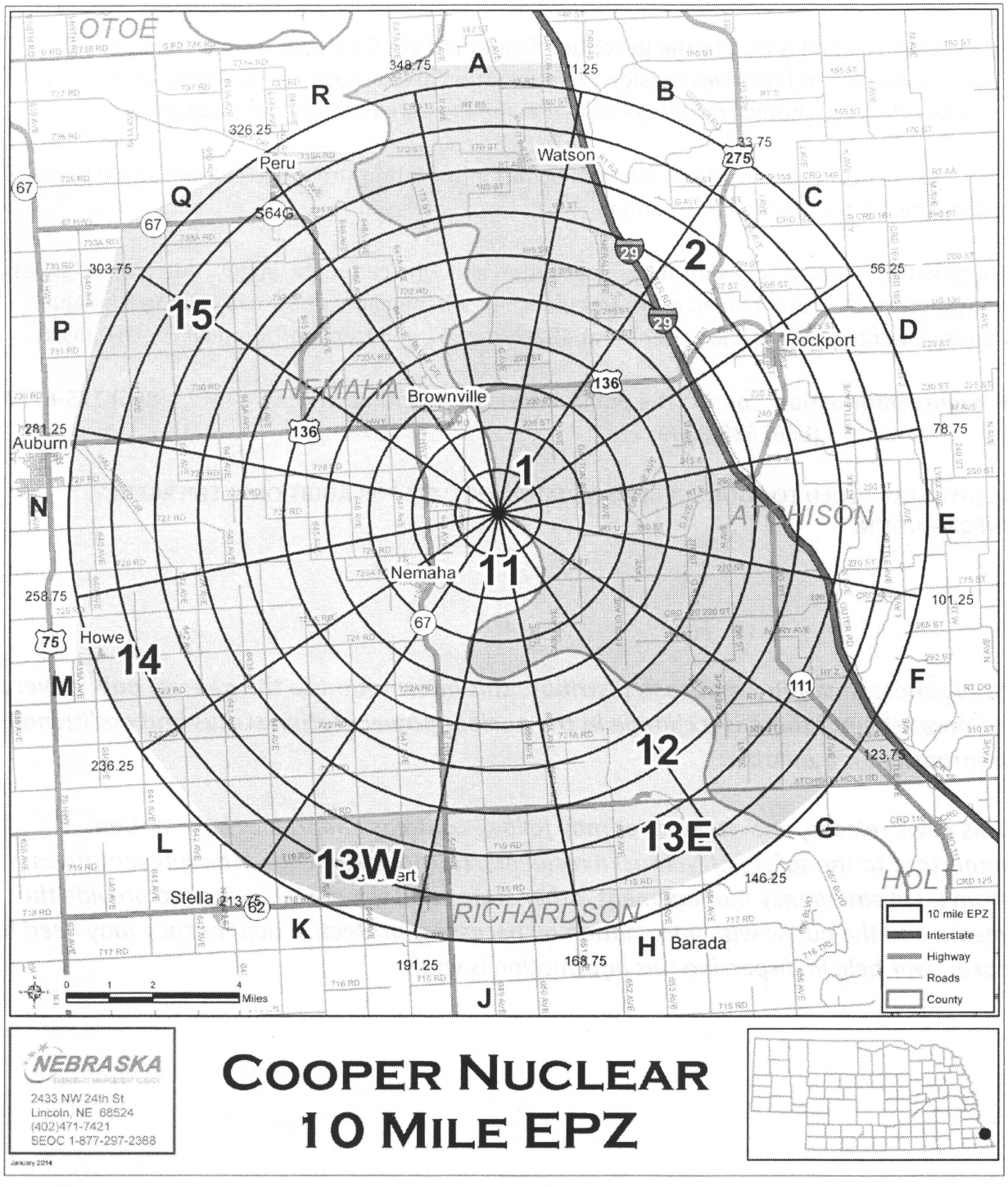
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FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11 AND 15 EVACUATION — Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11 and 15** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11 and 15 are bounded (boundaries include people living on both sides of the roads mentioned):

On the north from the west bank of the Missouri River, by and on a line with the northern boundary of Peru city limits, then from the northwestern boundary of Peru city limits, by and on a line southwest to the MCI Radio tower located on Nebraska Highway 67, two miles east of U.S. Highway 75,

On the west from the MCI Radio town located on Nebraska Highway 67, two miles east of U. S. Highway 75, by and on a line south-southwest to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the south from the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn, east on U.S. Highway 136 to the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue. From the intersection of U.S. Highway 136 and Nemaha County Road 647 Avenue, south on Nemaha County Road 647 Avenue to the intersection of Nemaha County Roads 647 Avenue and 725A, then east on Nemaha County Road 725A (which turns into Nebraska Street), to the western boundary of the Nemaha village limits. Then by and

on a line following the western and southern boundaries of the Nemaha village limits to the intersection the southern boundary of the Nemaha village limits with Nebraska Highway 67. Then from the intersection of the southern boundary of the Nemaha village limits and Nebraska Highway 67, south on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67 and east along the northern bank of the Little Nemaha River to the confluence with the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the City of Peru, the villages of Brownville and Nemaha, Brownville Recreation Area and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.
2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed, should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Area 11 should use U. S. Highway 75 or Nebraska Highway 67 south to U. S. Highway 73, then south to Falls City. Law enforcement officials will be directing people to the Reception Center at the Falls City Middle School, at 1415 Morton St., in Falls City, Nebraska.

All persons in Sub-Area 15 should use U.S. Highway 136 west to U.S. Highway 75 and go north on Nebraska Highway 67 to U.S. Highway 136 and go north to Nebraska City, Nebraska. Law enforcement officials will be directing people to the Reception Center at the Nebraska City Middle School, at 217 S. Ninth St., in Nebraska City, Nebraska.

All evacuees should report to the Reception Center at Falls City, even if they are planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

Those residents in sub-areas not affected by this information should go indoors and stay tuned to local media for further information.

Those without access to a vehicle for evacuation and who cannot arrange a ride with relatives or neighbors, or those in need of an ambulance or wheelchair van, should call the Nemaha County Emergency Operations Center at 402-274-2552 and transportation will be arranged.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

PLEASE STAY TUNED TO YOUR LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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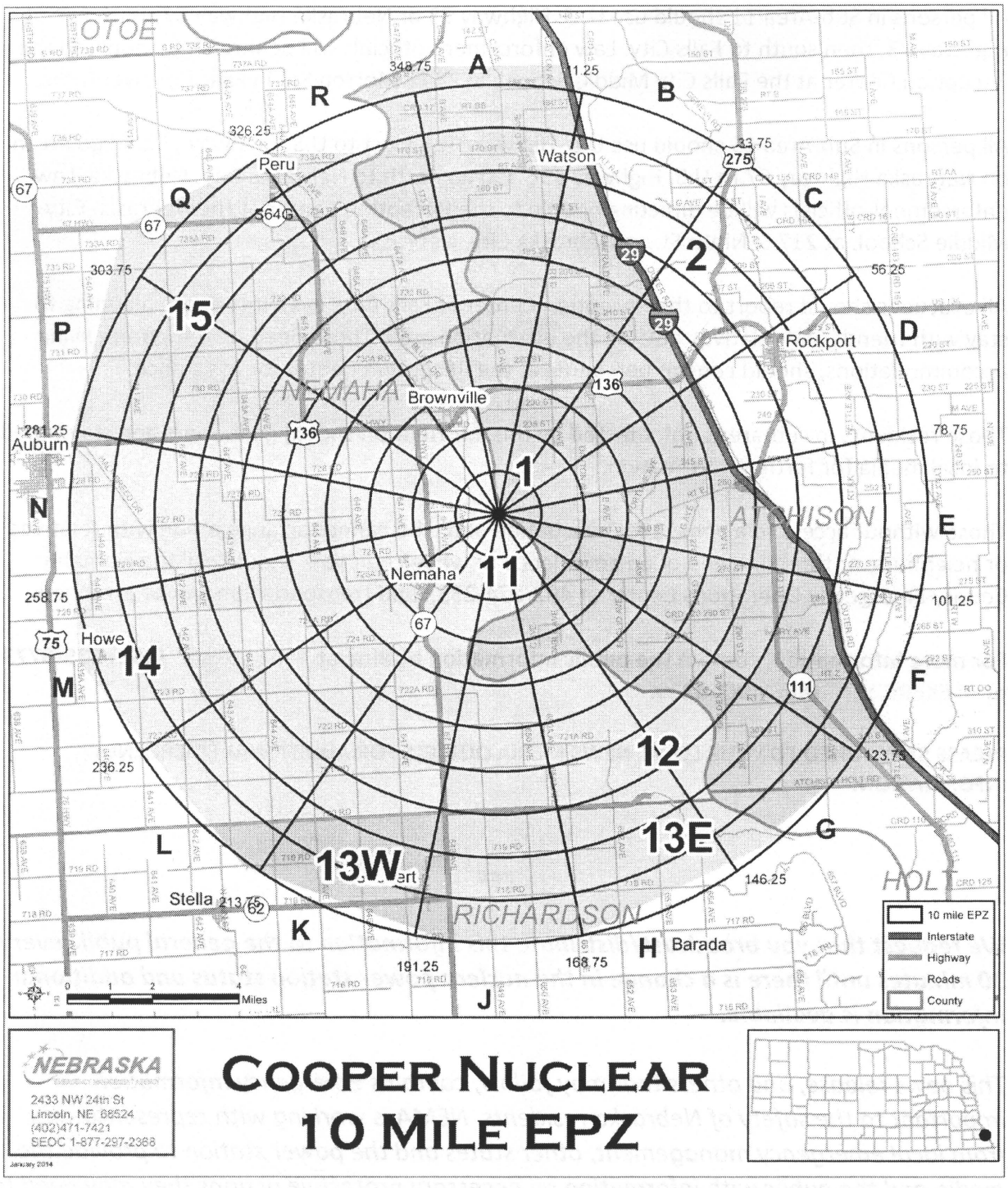
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NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
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FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11, 12, 13 EAST, 13 WEST AND 14 EVACUATION
Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12, 13 East, 13 West and 14** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12, 13 East, 13 West and 14 are bounded (boundaries include people living on both sides of the roads mentioned):

On the north from the west bank Missouri River, by and on a line with the northern boundary of the Brownville village limits, to the western boundary of the Brownville village limits. Then south along the western boundary of the Brownville village limits to U.S. Highway 136. Then west on U.S. Highway 136 to the intersection of U.S. Highway 136 and the Union Pacific Railroad tracks just east of Auburn,

On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, and continuing southeast to the intersection of Nebraska Highway 62 and County Road 645. Then south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717.

On the south from the intersection of Richardson County Road 717 and Nebraska Highway 67, east on Richardson County Road 717 to the intersection of Richardson County Road 651 Avenue and Richardson County Road 717, then from the intersection of Richardson County Road 651 Avenue and Richardson County Road 717, by and on a line north-northeast to the southern boundary of Indian Cave State Park and the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Stella, Shubert, Brownville Recreation Area, Steamboat Trace Trail and Indian Cave State Park.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.
2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed, should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Areas 11, 12, 13 East, 13 West and 14 should use U.S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement

officials will be directing people to the Reception Center at the Falls City Middle School, at 1415 Morton St., in Falls City, Nebraska.

All evacuees should report to the Reception Center at Falls City, even if they are planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

Those residents in sub-areas not affected by this information should go indoors and stay tuned to-local media for further information.

Those without access to a vehicle for evacuation and who cannot arrange a ride with relatives or neighbors, or those in need of an ambulance or wheelchair van, should call the Nemaha County Emergency Operations Center at 402-274-2552 and transportation will be arranged.

For more information, contact the public information hotline at **ACTUAL (866) 275-6773 or **EXERCISE** (866) 688-8239.**

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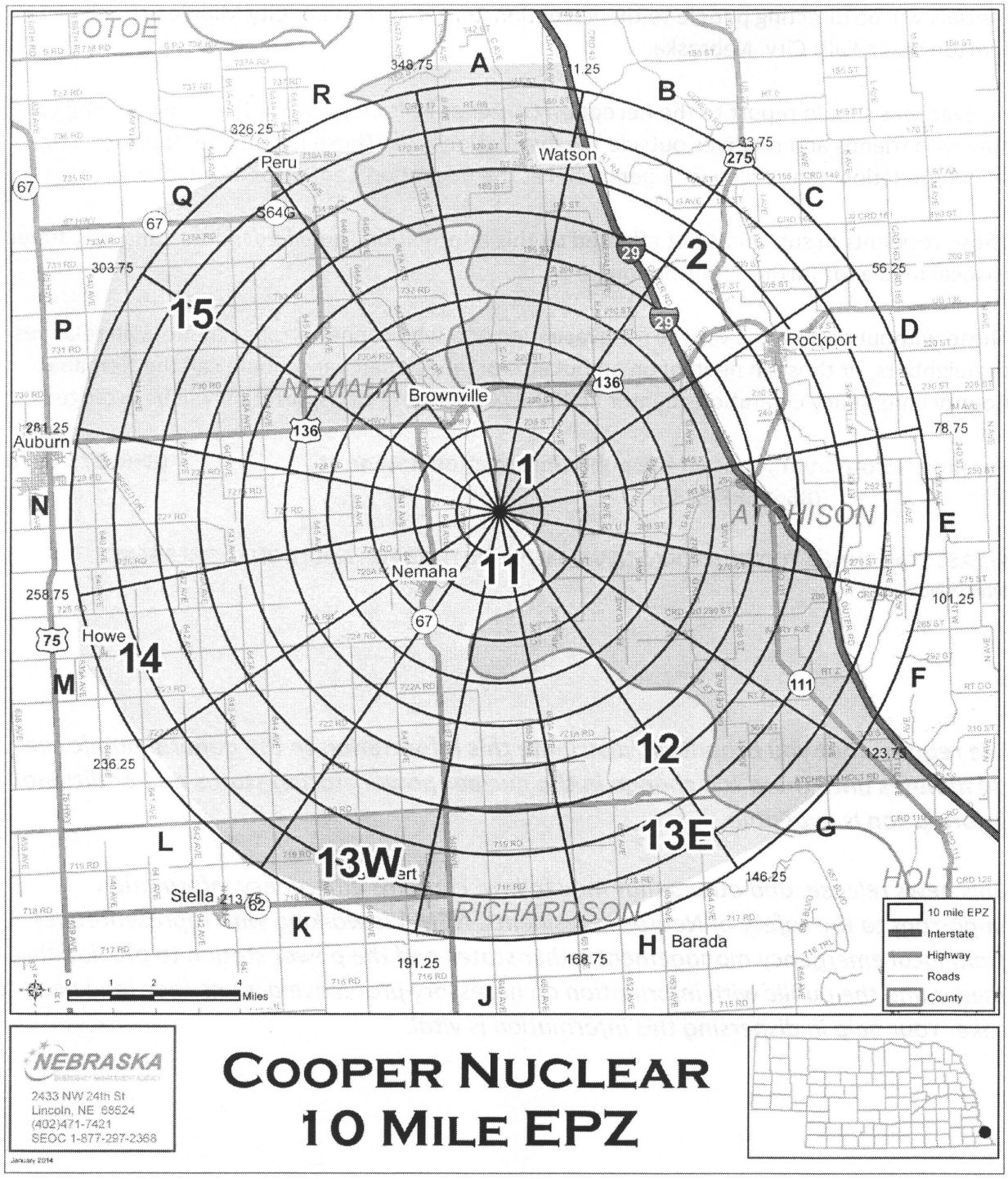
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On the west from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue and continuing southeast to the intersection of Nebraska Highway 62 and County Road 645. Then south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson County Road 717, north on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67, from the Little Nemaha Bridge on Nebraska Highway 67, east along the north bank of the Little Nemaha River to its confluence with the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Stella, Shubert, Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

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All persons in Sub-Areas 11, 13 West and 14 should use U.S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement officials will be directing people to the Reception Center at the Falls City Middle School, at 1415 Morton St., in Falls City, Nebraska.

All evacuees should report to the Reception Center at Falls City, even if they are planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

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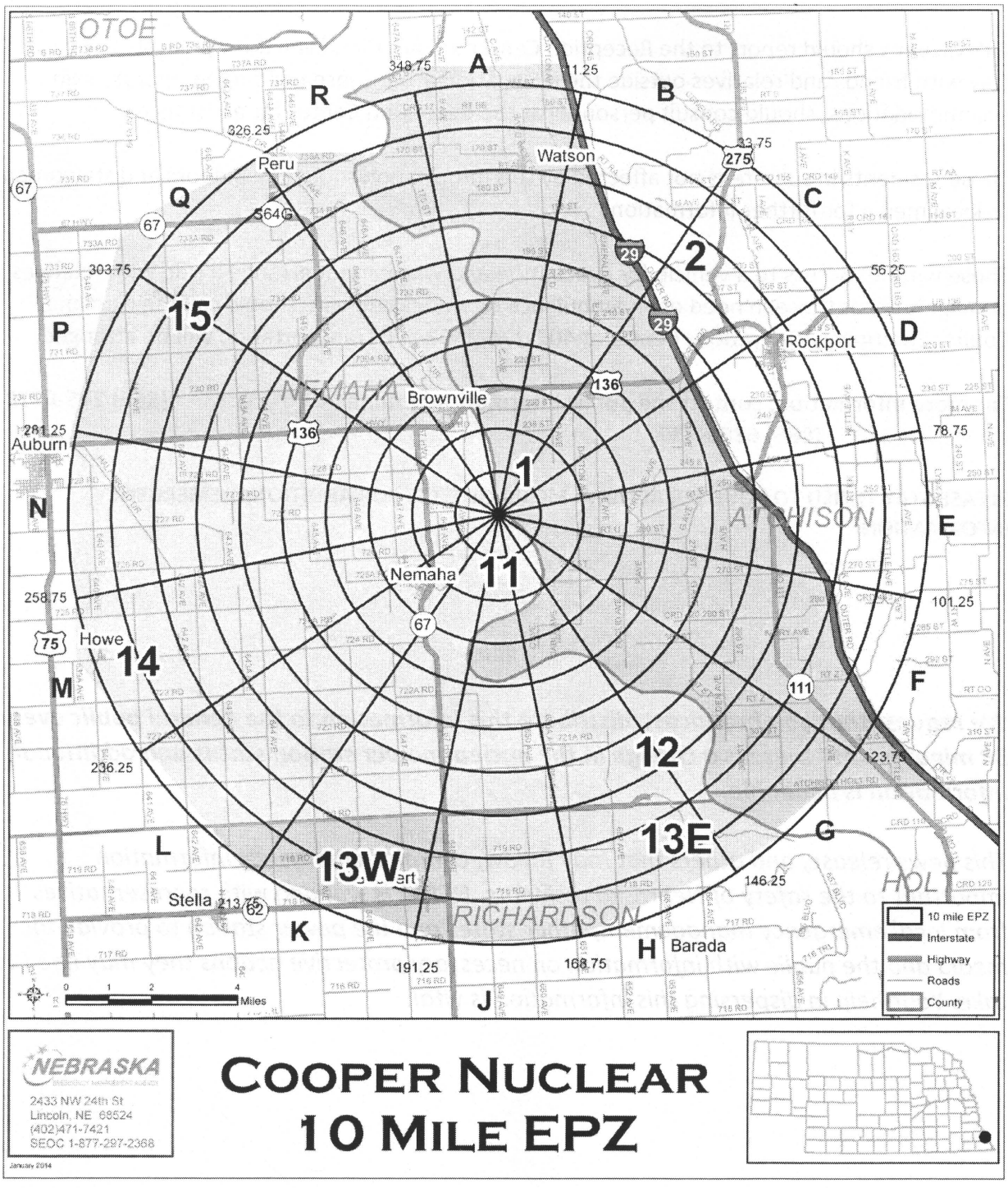
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SEOC 1-877-297-2368
January 2014
COOPER NUCLEAR
10 MILE EPZ

NEBRASKA
EMERGENCY MANAGEMENT AGENCY

NEWS RELEASE #___

STATE OF NEBRASKA
Joint Information Center (JIC)

Nebraska Emergency Management Agency (NEMA)
2433 N.W. 24th St., Lincoln, NE 68524-1801

— Exercise — Exercise — Exercise — Exercise — Exercise —

FOR IMMEDIATE RELEASE
Date/TIME APPROVED
CONTACT: Jodie Fawl, NEMA Public Information Officer, (402) 326-3179, jodie.fawl@nebraska.gov

SUB-AREA 11, 14, AND 15 EVACUATION
Cooper Nuclear Station

Lincoln —Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 14 and 15** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 14 and 15 are bounded (boundaries include people living on both sides of the roads mentioned):

On the north from the Missouri River, by and on a line with the northern boundary of Peru city limits, then from the Northwestern boundary of Peru city limits, by and on a line southwest to the MCI Radio tower located on Highway 67, two miles east of Highway 75,

On the west from the MCI Radio tower located on Highway 67, two miles east of Highway 75, by and on a line south-southwest to the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then from the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724 southeast through the intersection of County Road 720 (Nemaha and Richardson county line) and County Road 643 Avenue,

On the south from the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, east on County Road 720 to the intersection of Nebraska Highway 67 and

Nebraska 64E Spur (also known as Nemaha and Richardson county line/Road 720). Then north on Nebraska Highway 67 to the Little Nemaha Bridge on Nebraska Highway 67. From the Little Nemaha Bridge along the north bank of the Little Nemaha River to the confluence of the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the confluence of the Little Nemaha River to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the City of Peru, the villages of Brownville, Howe, Nemaha, and the Brownville State Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.

2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. When venturing outside use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
8. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
9. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.
10. Those people in the above described area where evacuation has been directed, should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Areas 11 and 14 should use U.S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement officials will direct people to the Reception Center at the Falls City Middle School, at 1415 Morton Street, in Falls City, Nebraska.

All persons in Sub-Area 15 should use U.S. Highway 136 west to U.S. Highway 75 and go north on Nebraska Highway 67 to U.S. Highway 136 and go north to Nebraska City, Nebraska. Law enforcement officials will direct people to the Reception Center at the Nebraska City Middle School, at 217 S. Ninth St., in Nebraska City, Nebraska.

All evacuees should report to the Reception Center either at Falls City or Nebraska City, even if planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

Those residents in sub-areas not affected by this information should go indoors and stay tuned to this station for further information.

Those without access to a vehicle for evacuation and who cannot arrange a ride with relatives or neighbors, or those in need of an ambulance or wheelchair van, should call the Nemaha County Emergency Operations Center at 402-274-2552 and transportation will be arranged.

For more information, contact the public information hotline at **ACTUAL** **(866) 275-6773** or **EXERCISE** **(866) 688-8239.**

PLEASE STAY TUNED TO YOUR LOCAL NEWS MEDIA OUTLETS FOR ADDITIONAL EMERGENCY INFORMATION.

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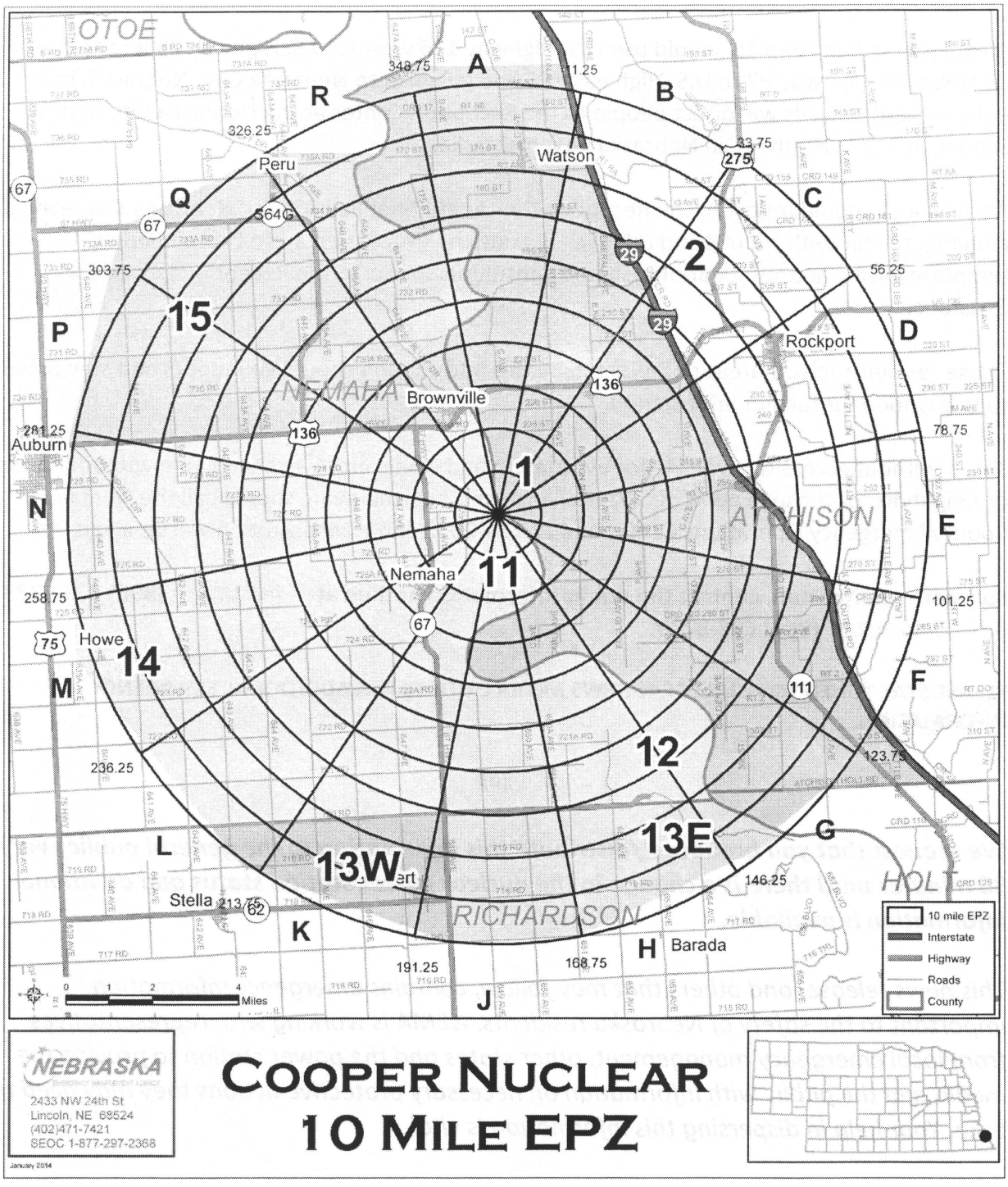
This news release, and others that may follow, contains emergency information important to the safety of Nebraska residents. NEMA is working with representatives from local emergency management, other states and the power station to provide the media and the public with information on necessary protective actions they may need to take. Your help in dispersing this information is vital.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SUB-AREA 11, 12, 13 EAST, 13 WEST, 14 AND 15 EVACUATION
Cooper Nuclear Station

Lincoln — Due to conditions at the Cooper Nuclear Power Station, the Nebraska governor's office, in conjunction with state and local emergency management officials, is **directing** that people living in the affected area identified as **Sub-Areas 11, 12, 13 East, 13 West, 14 and 15** evacuate immediately. Please refer to the Cooper Nuclear Station Emergency Planning Information in the Cooper Nuclear Station calendar which is distributed annually to all area residents.

State officials are recommending that everyone currently located in Nemaha and Richardson counties in Nebraska should follow local news media for updates on Cooper Nuclear Station.

In Nebraska, Sub-Areas 11, 12, 13 East, 13 West, 14 and 15 are bounded (boundaries include people living on both sides of the roads mentioned):

On the north from the Missouri River by and on a line with the northern boundary of Peru city limits, then from the northwestern boundary of Peru city limits, by and on a line southwest to the MCI Radio tower located on Highway 67, two miles east of Highway 75,

On the west from the MCI Radio tower located on Highway 67, two miles east of Highway 75, by and on a line south-southwest to the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn. Then from the intersection of Highway 136 and the Union Pacific Railroad tracks just east of Auburn, by and on a line south to the intersection of the Union Pacific Railroad tracks and Nemaha County Road 724. Then by and on a line from the intersection of the Union Pacific Railroad Tracks and Nemaha County Road 724, southeast through the intersection of County Roads 720 (Nemaha and Richardson county line) and 643 Avenue, continuing southeast to the intersection of Nebraska Highway 62 and Richardson County Road 645 Avenue. From the intersection of Nebraska Highway 62 and Richardson

County Road 645 south-southeast to the intersection of Nebraska Highway 67 and Richardson County Road 717,

On the south from the intersection of Nebraska Highway 67 and Richardson Country Road 717, east on Richardson County Road 717 to the intersection of Richardson County Roads 717 and 651 Avenue. Then from the intersection of Richardson County Roads 717 and 651 Avenue, by and on a line north-northeast to the southern boundary of Indian Cave State Park and the Missouri River,

On the east by that stretch of the Missouri River along its west bank from the southern boundary of Indian Cave State Park to the Brownville Bridge on Highway 136 and continuing north to the northern boundary of the Brownville village limits.

This includes the villages of Brownville, Howe, Nemaha, Stella, Shubert, the Brownville Recreation Area, and Steamboat Trace Trail.

Persons within the designated area should take the following protective actions:

1. Remain calm; People are more likely to be hurt in haste than by radiation.
2. Pack all necessary clothing, blankets, medical supplies, prescription drugs, personal items including dentures, eyeglasses, soap, towels, grooming products, sanitary supplies and toilet paper and include baby food and diapers if applicable. Do not forget any foods for special diets.
3. Bring credit cards, check book and other important papers. Bring other supplies such as a portable radio, batteries, flashlights and paper and/or plastic bags.
4. Before leaving home turn off the same appliances one would if taking a short two or three day trip. Lock all doors and window.
5. Keep telephone lines open for emergency communications.
6. Refer to the public information brochure in the Cooper Nuclear Station calendar for evacuation routes.
7. Refer to the Emergency Planning Information in the current Cooper Nuclear Station calendar for evacuation routes.
8. When venturing outside use a respiratory protection device. This may include a cotton handkerchief folded to provide eight (8) layers and placed over the mouth and nose. The handkerchief should be dry and held snugly in place to ensure its effectiveness.
9. Visitors in the described area, please evacuate immediately, using the designated evacuation routes.
10. People with livestock and/or pets such as reptiles, amphibians, fish, insects and arachnids should provide shelter for them with food and water. Pet owners evacuating with house pets such as cats, dogs, rabbits and turtles are responsible for their care and sheltering and should also bring along food and documentation proving immunizations. No pets, except service animals, will be allowed in the reception center.

11. Those people in the above described area where evacuation has been directed, should cease attempts to place dairy animals on stored feed and water, begin preparations to evacuate and then evacuate in a safe manner.

All persons in Sub-Areas 11, 12, 13 East, 13 West and 14 should use U.S. Highway 75 or Nebraska Highway 67 south to U.S. Highway 73, then south to Falls City. Law enforcement officials will direct people to the Reception Center at the Falls City Middle School, at 1415 Morton Street, in Falls City, Nebraska.

All persons in Sub-Area 15 should use U.S. Highway 136 west to U.S. Highway 75 and go north or Nebraska Highway 67 to U.S. Highway 136 and go north to Nebraska City, Nebraska. Law enforcement officials will direct people to the Reception Center at the Nebraska City Middle School, at 217 S. Ninth St., in Nebraska City, Nebraska.

All evacuees should report to the Reception Center either at Falls City or Nebraska City, even if planning to stay with friends and relatives outside the evacuation area. Those needing temporary living accommodations, should consult personnel at the Reception Center for assistance.

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