

Radiological Emergency Preparedness Activities by Emergency Classification Level

State of Minnesota

The State of Minnesota provides direction, control and coordination as outlined in the Minnesota Emergency Operations Plan (MEOP). The State Emergency Operations Center (SEOC) is operated under the National Incident Management System (NIMS) using the incident command structure. The Governor directs SEOC operations and the Department of Public Safety Division of Homeland Security and Emergency Management (HSEM) coordinates agency response to the event. As required by Executive Order 05-02, all state agencies responding to a disaster will use NIMS.

State Activities by Emergency Classification Level (ECL)

Notification of Unusual Event (NUE)

- The Minnesota Duty Officer is notified by the utility.
- The Minnesota Duty Officer notifies various personnel as indicated by standard operating guidelines.
- The state and the utility may initiate communication about technical issues.
- NUE status is maintained until verbal termination or escalation to a higher ECL takes place.

Alert

- The Minnesota Duty Officer is notified by the utility.
- The Minnesota Duty Officer notifies HSEM staff and state agencies.
- The SEOC is activated and fully staffed.
- State agencies report to SEOC as required by the MEOP.
- Governor signs and issues a predetermined Emergency Executive Order activating portions of the Minnesota National Guard. The order also authorizes state agencies to support response activities and establishes the Governor's Authorized Representative (GAR).
- A Joint Information Center (JIC) is established with representatives from state agencies, counties and the utility.
- Joint media briefings are coordinated from the JIC.
- An Information Hotline (rumor control) is established.
- SEOC notifies the National Operations Center (NOC) and FEMA Region V Operations Center.
- State Radiological Assistance Monitoring Teams are activated and put on standby.
- The National Guard 55th Civil Support Team may be activated as an additional plume tracking resource.
- The Minnesota Department of Transportation (Mn/DOT) field workers are placed on standby to set up barricades for traffic control.



Alert continued

- A State Patrol helicopter is dispatched to the county staging area for emergency notifications in recreational areas.
- State Patrol troopers are placed on standby for traffic control points.
- Department of Agriculture field teams are placed on standby.
- All school districts in the 10-mile EPZ are notified.
- Emergency worker decontamination centers are placed on standby by the counties.
- Reception centers (where the general public goes for monitoring and decontamination) are placed on standby.
- National Atmospheric Release Advisory Center (NARAC) assistance is requested for plume mapping.
- U.S. Department of Energy radiological assistance is requested to be put on standby.
- Target[®] alert 1 is notified to discontinue distribution of potassium iodide (KI) at Target[®] Pharmacies.
- Evacuation routes are reviewed for impediments.
- Counties are consulted about any special events or concerns that may affect protective action recommendations.
- The SEOC Planning and Assessment Center (PAC) starts modeling possible plume scenarios based on current meteorological data.
- Air, rail and river traffic control centers are notified and alerted that restrictions may be needed in the future.
- SEOC recommends to counties that school districts in the 10-mile EPZ are notified to have busses placed on standby for evacuation/relocation if needed.
- Special populations (anybody needing additional time to evacuate including home daycares, nursing homes, etc.) in the 10-mile EPZ are notified through general media releases of the situation.
- Alert status is maintained until verbal termination, ECL reduction or escalation to a higher ECL takes place.

Site Area Emergency (SAE)

- The Minnesota Duty Officer or the PAC in the SEOC is notified by the utility.
- Governor issues a predetermined declaration of a State of Emergency.
- SEOC recommends to counties that school districts with schools within the 10-mile EPZ are relocated to their designated sister school locations outside of the 10-mile EPZ.
- All school districts in the 10-mile EPZ are advised not to send school children who live within the 10-mile EPZ home from schools outside the EPZ.

Division of Homeland Security and Emergency Management
444 Cedar Street, Suite 223
St. Paul, MN 55101
651/201-7400

www.hsem.state.mn.us

Radiological Emergency Preparedness Activities by Emergency Classification Level

Site Area Emergency (SAE) continued

- Special populations (anybody needing additional time to evacuate including home daycares, nursing homes, etc.) are notified to consider relocating outside the 10-mile EPZ through the general media releases.
- State RAD teams are pre-positioned to track potential radioactivity release.
- U.S. Department of Energy radiological assistance is initiated.
- The SEOC PAC conducts dose analysis of utility provided release mixture and RAD field team data.
- Department of Agriculture issues a livestock advisory recommending that livestock within 10-miles of the plant be sheltered and placed on stored feed. Department of Agriculture also assesses the need to extend the livestock advisory beyond 10-miles.
- SEOC, through Mn/DOT, requests closures of airspace (temporary flight restriction for the 10-mile EPZ and up to 10,000 ft.), rail and river traffic in the 10-mile EPZ.
- Mn/DOT field workers place traffic control barricades in pre-determined locations.
- Minnesota State Patrol and local jurisdictions staff traffic control points.
- Reception centers are set up and staffed to receive and monitor evacuees.
- Area hospitals are alerted and bed availability is determined.
- State Parks within the 10-mile EPZ are closed.
- Preparations are made to evacuate or shelter-in-place populations in special facilities like, jails, hospitals, nursing homes, etc.
- Emergency worker decontamination facilities are setup.
- SEOC and PAC continuously assess information from the utility and off-site monitoring to continually assess protective actions.
- Maintain Site Area Emergency status until verbal termination or escalation to a general emergency.

General Emergency (GE)

- The Minnesota Duty Officer or the SEOC-PAC is notified by the utility.
- The State recommends evacuation or sheltering in a predetermined two-mile radius and five-miles downwind (for PI, if the wind speed is below five mph, evacuation or sheltering occurs within the entire five-mile radius) in the case of actual or projected, severe core damage or loss of control of the facility. The state will continue to assess the need to extend evacuation distances.
- The state will recommend the self-administration of KI for emergency workers if this has not been done already.

- The state recommends self-administration of KI for the entire population within the evacuation or sheltering area.

General Emergency (GE) continued

- Emergency information will be relayed to the general public and special populations via Special News Bulletins (SNB) after the Emergency Alert System (EAS) and outdoor warning sirens are activated.
- The JIC will provide additional information through media briefings.
- Residents in the remainder of the EPZ are advised to go indoors and listen to EAS and Special News Bulletin messages.
- State RAD teams conduct radiological monitoring in the area to detect and track any release of radioactive material. The National Guard Civil Support Team (CST) may be used to support this mission if needed.
- The PAC conducts dose analysis of utility provided release mixture and RAD field team data. The PAC also evaluates the need for any protective action recommendations outside of the 10-mile EPZ.
- The Intermediate Phase Taskforce is established to review recommendations to protect the food supply in the EPZ.
- Department of Agriculture embargoes food products that are within the evacuated or sheltered area.
- Department of Natural Resources puts restrictions on hunting, fishing and recreational land use in the EPZ.
- Hospitals are notified of the evacuation.
- State Patrol helicopter is used to notify people in recreational areas of the emergency and any protective actions that are recommended.
- Maintain general emergency status until verbal termination.

Risk County Government

Counties in the EPZ respond to incidents at nuclear generating plants in accordance with their emergency operations plans. Each county's activities are intended to protect lives and property, ensure continuity of government, provide essential services and support local units of government. The county activates its EOC to carry out these activities. The county EOC allows information to be exchanged between county departments and coordinates operations with other counties, state and federal agencies as well as tribal communities. County EOC staff is in direct contact with the state EOC and advised of all recommended protective actions.

Radiological Emergency Preparedness Activities by Emergency Classification Level

Risk County Activities by Emergency Classification Level (ECL)

Notification of Unusual Event (NUE)

- Dispatch centers are notified of an event by the utility.
- County emergency management directors are notified by dispatch.
- NUE status is maintained until verbal termination or escalation to a higher ECL takes place.

Alert

- Dispatch centers are notified of an event by the utility.
- The county EOC's are activated.
- County public information officers are sent to the JIC.
- County operated Emergency Worker Decontamination Centers are notified and put on stand-by.
- County assesses special events or concerns that may affect protective action recommendations.
- County notifies school superintendents within the 10-mile EPZ.
- School superintendents notify bus transportation companies and put them on standby for evacuation.
- Alert status is maintained until verbal termination, ECL reduction or escalation to a higher ECL takes place.

Site Area Emergency

- Dispatch centers or the county EOC is notified by the utility.
- Counties notify school superintendents to evacuate schools within the 10-mile EPZ to predetermined sister schools outside the affected area or to shelter-in-place within their current school.
- County operated emergency worker decontamination centers are setup and staffed.
- Road blocks are established as necessary.
- County boards declare a state of emergency.
- Maintain site area emergency status until verbal termination or escalation to a general emergency. Termination of this ECL requires NRC approval.

General Emergency

- The dispatch center or county EOC is notified by the utility.
- Protective action decisions are implemented as necessary.
- Counties sound their sirens and deputies run their routes for evacuation as called for.
- Mobility impaired persons are evacuated.
- Counties prepare for the re-entry and relocation of the displaced population.
- Maintain general emergency status until verbal termination. Termination of this ECL requires NRC approval.

Utility

Control room operators monitor the operation of nuclear generating plants continuously. When an unexpected event occurs, its effects on the public are evaluated. If necessary, the utility communicates an ECL to federal, state and county governments.

Utility Activities by Emergency Classification Level (ECL)

Notification of Unusual Event (NUE)

- Utility assesses and responds to the off-normal condition.
- Minnesota Duty Officer, local county dispatchers, tribes and the Nuclear Regulatory Commission (NRC) are promptly notified of the unusual event status and reason for the ECL.
- NUE is escalated to a more severe class, if appropriate, or terminated by a briefing of off-site authorities at EOCs by phone followed by a faxed, written summary.

Alert

- The State(s), local county dispatchers, tribes and the NRC are promptly notified of alert status and reason for the ECL.
- Utility staff report to the SEOC.
- On-shift resources are augmented by activating the Technical Support Center (TSC), Operational Support Center (OSC), and the Emergency Operations Facility (EOF). These facilities are activated at the nuclear generating plant to assist the control room: TSC and the OSC, which are located on the property and owned by the utility, are activated to deploy teams to operate and repair equipment and monitor radiological conditions in the plant.
- The EOF is activated to provide engineering support to the control room and to communicate conditions to off-site authorities. Periodic status updates are provided by the EOF to off-site authorities.
- Public information officer (PIO) staff the JIC at the SEOC.
- Results of periodic meteorological assessments and (if a release is occurring) dose projections for releases are provided to off-site authorities.
- Alert is escalated to a more severe class, if appropriate, reduced or terminated by a briefing of off-site authorities at EOCs by phone followed by a faxed, written summary.

Site Area Emergency

- The State(s), local county dispatchers, tribes and NRC are promptly informed of site area emergency status and reason for the ECL.
- Control room staff and response personnel continue to monitor plant conditions and repair systems when possible. If not already staffed, the EOF and other on-site response

Radiological Emergency Preparedness

Activities by Emergency Classification Level

centers are activated. If conditions permit, on-site non-essential personnel are evacuated.

Utility Activities continued

- Field monitoring teams are dispatched to monitor radiation levels around the plant.
- A PIO coordinates media updates on the plant status with state and county authorities at the JIC.
- Senior technical and management staff on-site may periodically consult with the NRC and state authorities.
- In the case of an actual release, the utility provides meteorological and dose projections to off-site authorities via dedicated individual or automated data transmission.
- Site area emergency is escalated to a more severe class, if appropriate, or terminated with a briefing of off-site authorities at EOCs by phone followed by a faxed, written summary. Termination of this ECL requires NRC approval.

General Emergency

- The State(s), local county dispatchers, tribes and the NRC are notified of general emergency status and the reason for the ECL.
- All on-site response centers are staffed and made operational.
- Plant conditions are monitored and systems repaired, when possible.
- On and off-site monitoring teams are dispatched.
- PIO coordinates plant status updates to off-site authorities and gives periodic media briefings in cooperation with the state JIC.
- Senior technical and management staff may consult with NRC and state authorities on a periodic basis.
- Off-site protective action recommendations are made to state and local authorities based on actual or potential plant conditions and radiological releases.
- Release-rate and dose projections based on plant conditions are provide to off-site authorities.
- Once the situation is under control and the release is stopped, the general emergency is terminated with a briefing of off-site authorities at EOCs by phone followed by a faxed, written summary.
- The utility begins the recovery phase of the incident.
- Termination of this ECL requires NRC approval.

Radiological Emergency Preparedness Activities by Emergency Classification Level

Intermediate/Ingestion Phase

When the release has ended and the situation brought under control, attention shifts from the immediate actions of the Plume Phase to the longer term issues of the Ingestion Phase. These include the establishment of Relocation areas, Restricted Zones, Re-Entry protocols, Return protocols, Recovery, and additional Food Control Measures:

Relocation Areas Established:

- The initial post plume priority is to determine if there is contamination in areas outside of the initial evacuation areas that require additional measures (evacuation or relocation) to protect the public.
- Relocation areas are where the removal or continued exclusion of people from contaminated areas is needed to avoid chronic (long term) radiation exposure.
- These areas are established anywhere there is a concern about long-term exposure due to contamination.
- Relocation from an area is indicated when soil samples exceed EPA Protective Action Guidelines for 1-year, 2-year, or 50-year periods of occupancy.

Restricted Zones Established:

- Restricted Zones are established to protect area residents from the potential effects of chronic exposure to low-level radiation.
- These are areas with controlled access from which the population has been evacuated or relocated.
- Re-entry into the restricted zone is limited to essential personnel only.
- All persons entering a restricted zone must be registered, briefed on radiation exposure, given dosimetry, and may need to be escorted.
- People leaving a restricted area will need to be monitored for radiological contamination and may need to be decontaminated.
- An area remains restricted until a combination of remediation efforts and the natural decay of radiation allow for safe long-term residency.

Re-entry Protocols Established:

- Protocols and procedures are implemented to authorize the temporary re-entry into a Restricted Zone for activities including:
 - Protection of Valuable Infrastructure
 - Law Enforcement
 - Fire Fighting
 - Tending Livestock
 - Control of Industrial Processes and Public Utilities
 - Animal Rescue/Control

Return Areas Established:

- The orderly return of people to areas where there was no contamination or there is no long term exposure health risk.
- Following verification and establishment of Restricted Zone boundaries and traffic control points, some areas can be cleared for return to unrestricted residence or use.
- The timing of the return is coordinated with state and local agencies.
- Although people can return, some of these areas may still have low level contamination and may require some ingestion pathway food controls/restrictions.

Recovery:

- Recovery will involve continued and extensive field sampling, damage and impact assessments, and the coordination of federal assistance and nuclear insurance benefits.
- Coordinate remediation of contamination and restoration to pre-event conditions and activities.

Food Control Measures:

- Food protections begin with the issuing a livestock advisory during the Site Area Emergency, and an embargo order during the General Emergency for all affected areas where evacuation or sheltering has taken place.
- Additional controls may be put in place following the results of field sampling during the Intermediate/ingestion Phase.
- Additional food embargoes are mandated when lab analysis indicates radiation levels exceeding strict FDA guidelines for annual consumption.
- Food control decisions emphasize public protection, and balance the long and short term implications for economic damage to the state.

Risk County Activities

- Coordinate establishment of relocation areas, restricted areas, re-entry and return with the state
- Coordinate Recovery issues with the state.

Ingestion County Activities

- Receive initial notification of emergency from the SEOC.
- Notify appropriate officials as needed.
- Prepare to receive Ingestion Brochures and distribute ingestion brochures to food producers in the county.
- Coordinate with the state on the embargo and protection of food products in the county.
- Maintain communications with the SEOC.
- Coordinate any implementation of relocation areas, restricted areas, reentry, and return with the SEOC.