

## Incident Response

### NRC Response to Emergency Events

In the unlikely event of a serious emergency involving an NRC-license facility or material, the agency is prepared to respond immediately. Trained personnel continuously monitor licensee activities and are available to take information about a variety of threats from other federal agencies. In addition, specially trained responders in a variety of disciplines are always on call and able to respond quickly. Equipment, policies, and procedures for these response activities are regularly tested, re-evaluated, and updated so that the agency is ready at all times.

If a significant incident occurs, the NRC activates its Headquarters Operations Center (HOC) and one or more of its four Regional Incident Response Centers (IRCs). Specially trained and qualified personnel work in the HOC at all times. They take emergency information from a licensee and immediately notify key NRC managers and staff. These managers and staff are trained as responders in their areas of expertise and assemble in the HOC and IRC to support NRC response activities. The responders' activities are defined by the agency's incident response program.



### Incident Response Program

The NRC incident response program uses a flexible system to tailor its response to the significance of an event. In the different modes of the system, NRC responders' activities change in order to best support the event. For example, in an event involving an NRC-licensed facility, the agency might decide to move from its "normal" response mode to "monitoring mode". In this level of response, key regional experts staff the appropriate IRC to respond to

the event. If necessary, the NRC could then enter "activation mode". In this mode, the necessary safety, security, and preparedness specialists report to the HOC. The final emergency response mode is called "expanded activation". It is entered when an incident's severity or uncertainty warrants sending a team of NRC experts directly to the site of the event. Once the team arrives at the site and assesses the situation, oversight of the incident may be transferred from Headquarters to the Site Team.

When the NRC incident response program is activated to any mode beyond normal, the agency notifies skilled and trained responders who assemble and begin working directly with various counterparts. In the example of an event involving an NRC-licensed facility, some responders will work directly with the nuclear power plant operators to assess the condition of the plant and local officials.

These protective actions may include sheltering, evacuation, or the use of potassium iodide where appropriate. Other NRC responders will relay information about the incident to the media, states, local governments, tribal entities, other federal agencies, Congress, the White House, and international governments.

Although the licensee has primary responsibility to stabilize their facility or material and return it to a safe condition, the NRC Chairman has the authority to intervene and direct the licensee's on-site response if necessary to protect public health and safety and the environment.

Equipment, policies, and procedures for response activities are regularly tested, reevaluated, and updated so that the agency is ready at all times. The NRC tests itself many times each year with drills and exercises that mimic safety or security incidents and test the response plans of the agency and licensed facilities. In addition to full-scale exercises, the HOC and IRCs are periodically activated throughout the year for small emergencies or potential emergencies.

## **Licensee Response**

NRC regulations require licensees to have plans for responding to incidents, protecting against radiological releases, and reducing the impacts of incidents. The NRC reviews these plans on a regular basis and tests them through exercises.

If a significant incident or emergency occurs, licensees are required to take immediate actions to ensure safety and security. They must also provide timely notifications to the NRC and state and local government authorities, and recommend how to protect the public from potential consequences.

Based on NRC regulations, licensees classify incidents according to the plant conditions and the level of risk to the public. Nuclear power plants, for example, use four emergency classifications:

- **Notification of Unusual Event** - Under this category, events are in process or have occurred that indicate a potential decline in the level of safety of the plant. No release of radioactive material requiring offsite response or monitoring is expected at that time.
- **Alert** - If an alert is declared, events are in process or have occurred that involve an actual or potentially substantial decline in the level of plant safety. However, any release of radioactive material is expected to be only a small fraction of the Environmental Protection Agency (EPA) protective action guidelines.
- **Site Area Emergency** - A site area emergency involves events in progress or which have occurred that result in an actual or likely a major failure of the plant's ability to protect the public. Any releases of radioactive material are not expected to exceed the EPA guidelines except near the site boundary.
- **General Emergency** - A general emergency involves actual or imminent severe damage or melting of radioactive fuel in the reactor core with the potential for loss of containment integrity. Radioactive releases during a general emergency can be expected to exceed the EPA guidelines beyond the immediate site area.

## State and Local Government Response

State governments, and in some locations, local and/or tribal governments, develop and implement emergency plans for incidents involving an NRC-licensed facility or material. Although the licensee is the primary party responsible for what occurs *onsite*, state and local governments are responsible for protecting life, property, and the environment *offsite*.

Through drills and exercises, state and local governments work closely with the Federal Emergency Management Agency, and when appropriate, the NRC, to ensure that their plans and procedures will protect their community's health and safety.

During an emergency incident, the NRC communicates directly with state and local governments to share information. The NRC may also offer technical advice and assistance if requested.

## Federal Response

The NRC works within the National Response Framework to respond to events. The framework guides the nation in how to respond to complex events that may involve a variety of agencies and hazards.

Under this framework, the NRC retains its independent authority and ability to respond to emergencies that involve NRC-licensed facilities or materials. The NRC coordinates the federal technical response to an incident that involves one of its licensees.



The NRC may request the support of the Department of Homeland Security (DHS) in responding to an emergency at an NRC-licensed facility or involving NRC-licensed materials. DHS may lead and manage the overall federal response to an event, according to Homeland Security Presidential Directive-5. In this case, the NRC would perform an important role in providing technical expertise and helping share information among the various organizations and licensees.

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