

## **DRAFT STANDARD PROTOCOL FOR STATE AND TRIBAL OUTREACH ON UNINTENDED RELEASES OF RADIOACTIVE MATERIAL**

### **Introduction:**

Events ranging from the March 1979 Three Mile Island accident to tritium groundwater leaks at nuclear power plants and the March 2011 Japan Fukushima Dai-ichi earthquake, tsunami, and resulting nuclear power plants event underscore the need for early and sustained communications with States and other stakeholders about unintended radioactive releases.

The U.S. Nuclear Regulatory Commission (NRC) staff has learned from States and other stakeholders that prompt, proactive, and clear communication is essential during unintended radioactive releases from NRC licensed facilities. Even when the public health risk is low, the perception of risk may be high. The need for timely, accurate, and consistent information with clear key messages about the significance – or non-significance – of unintended radioactive releases can help NRC and the States put an event and any associated impacts into perspective for the public. An early alignment on key messages helps NRC and the States “speak with one voice” to inform the public about the facts and actions being taken by NRC and its licensees to deal with the release, identify and address any issues to mitigate the impact on health and safety and the environment, and prevent such releases in the future. Timely, accurate, and clear communications on NRC’s part dispels rumors and misperceptions and helps reassure the States and other stakeholders that the release is being handled appropriately.

### **Purpose:**

The purpose of this standard protocol is to ensure NRC staff effectively plan and coordinate the timely, accurate, and consistent flow of information to States about unintended releases of radioactive material from NRC regulated facilities and associated NRC and licensee activities. This standard protocol serves as guidance to NRC staff and does not involve a change in Commission policy. It supplements NRC long standing communication practices already in place and identifies individual and organizational responsibilities and key actions for communications with States about unintended radioactive releases. NRC staff should continue to follow communication plan guidance and use tools available at the NRC’s internal communications site to develop such communications:  
<http://www.internal.nrc.gov/communications/index.html>.

### **Background:**

The standard protocol for engaging States on unintended releases of radioactive material is an outgrowth of a recommendation in the June 2010 Groundwater Task Force Report (Agencywide Documents Access and Management System (ADAMS) Accession Number ML101680435). Development of a standard protocol was also discussed in the staff’s February 9, 2011, memorandum to the Commission (ADAMS Accession Number ML110050252) on initiatives for improved communication of groundwater incidents. The standard protocol incorporates communications lessons learned from groundwater incidents and stakeholder feedback provided during an October 4, 2010, workshop (ADAMS Accession Number ML102861795)

and a February 24, 2011, briefing on groundwater. This standard protocol does not address activities covered under the “NRC Incident Response Plan” (NUREG-0728), which identifies NRC organizational responsibilities that will provide assistance, commit staff, and manage the NRC response to and communications about incidents and emergencies involving regulated facilities and materials (see also Management Directive 8.2, “NRC Incident Response Program,” at [http://www.internal.nrc.gov/ADM/DAS/cag/Management\\_Directives/md8.2.pdf](http://www.internal.nrc.gov/ADM/DAS/cag/Management_Directives/md8.2.pdf).)

The standard protocol was developed in conjunction with input from the NRC Communications Council subgroup on public confidence and the NRC’s Regional State Liaison Officers (RSLOs) and Regional State Agreements Officers (RSAOs). The RSLOs are NRC’s primary day-to-day contacts for communications about NRC regulatory activities with Governor-appointed State Liaison Officers (SLOs), and State organizations involved in environmental protection, public health and service, emergency management, and radiation control. The standard protocol supplements NRC’s long standing communications practice and policy (57 FR 6462, February 25, 1992), as outlined in Management Directive 5.2, “Cooperation with States at Commercial Nuclear Power Plants and Other Production or Utilization Facilities,” dated October 29, 2010, at: <http://pbadupws.nrc.gov/docs/ML1022/ML102220529.pdf>, and FSME Procedure SL-100, “Regional State Liaison Officers (RSLOs),” dated July 14, 2010, <http://nrc-stp.ornl.gov/procedures/sl100.pdf>.

The views of SLOs, State Radiation Control Program Directors (RCPD), and the National Alliance for Radiation Readiness (NARR)\* were also solicited. NRC’s close working relationship with these State contacts and organizations will facilitate the timely dissemination of information involving unintended radioactive releases to not only Governors and other State and local agencies, but also to the public health community. These State contacts and organizations can also help to further disseminate such information in a consistent and timely manner to the general public.

### **Information about Unintended Radioactive Releases:**

NRC licensees have certain reporting requirements to notify NRC about unintended radioactive releases (see Title 10 of the Code of Federal Regulations Parts 20, 50, and 70). In addition, under the Nuclear Energy Institute’s Ground Water Protection Initiative (NEI 07-07), nuclear power plant licensees currently voluntarily communicate informally, as soon as practicable with States and with follow-up notification to NRC, about the conditions and occurrences related to inadvertent releases of radioactive material to ground water, which may result in low but detectable levels of radioactivity in subsurface soils and water. Voluntary reporting covers on-site leaks and spills into ground water and on-site or off-site water sample results. While such releases fall outside NRC reporting requirements and are well below NRC limits that ensure protection of public health and safety, timely and informal communication with States about unintended radioactive releases ensures State officials are made aware of such releases.

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\* NARR is a coalition of representatives of State and local public health preparedness organizations, State public health laboratories, State and territorial epidemiologists, State and local radiation control programs, and disaster medicine and emergency preparedness organizations. NARR is committed to improving the nation’s ability to prepare, respond, and recover from radiological emergencies at the local, State and national levels.

## **NRC Headquarters and Regional Communications with States – General Approach for State Outreach:**

The Office of Federal and State Materials and Environmental Management Programs (FSME), Division of Intergovernmental Liaison (DILR), manages NRC's Federal, State and Tribal Liaison Program. DILR has established relationships with certain Federal, State, and local governments, interstate and professional organizations, and Native American Tribal governments and maintains regular and effective relations and communications with these organizations. Such relationships promote greater awareness and mutual understanding of the policies, activities, and concerns of all parties involved, primarily the States, as they relate to radioactive safety at NRC licensed facilities.

Additionally, within NRC's Regions, the RSLOs serve as the primary communications interface between NRC and a variety of other organizations with interest in or responsibilities for nuclear matters, including other Federal agencies, national and State organizations, States, county and local government organizations, and Native American Tribal governments. The RSLOs maintain regular communications with the Governor-appointed SLOs, other State and local officials, as appropriate, and with Native American Tribal governments affected by, or otherwise interested in, NRC's programmatic and regulatory affairs. The RSLOs provide State officials with NRC licensee plant performance information, event notification and follow-up information, as requested, and coordinate with Regional Office of Public Affairs and Divisions of Reactor Projects (DRP) and Reactor Safety (DRS) on content and planning for emergent communications needs (e.g. event notifications, preliminary notifications) and outreach activities. In the event that an Agreement State materials issue arises, NRC's RSAOs may also facilitate communications, when requested by an Agreement State, between the NRC and pertinent State and Federal agencies. Together, RSLO and RSAO familiarity with Regional priorities and with State-, local-, and Tribe-specific issues, ready access to Regional management and staff, and longstanding, well established relationships with State and Tribal organizations enables the Regions to communicate effectively and efficiently with their stakeholders having an interest in unintended releases of radioactive material.

In the case of Region III, the RSLO also maintains communications with the Prairie Island Indian Community (PIIC), given its location within the 10 mile emergency planning zone (EPZ) of the Prairie Island Nuclear Generating Plant. The PIIC is considered to be included in this standard protocol because they are the only Native American Tribe located within the 10 mile EPZ of a NRC regulated nuclear power plant. Other Tribes located near other NRC regulated facilities, such as fuel cycle and uranium recovery facilities, would also be covered under this protocol.

## **Responsibilities:**

### **RSLO and RSAO**

- ❖ When first notified about an unintended radioactive release, the RSLOs should confirm whether the licensee has notified the State.
- ❖ Following coordination with the Region or responsible NRC program office, RSLOs or RSAOs will communicate informally with appropriate State officials to ensure they are aware of the unintended radioactive release. The RSLO/RSAO should commit to keeping State officials apprised of the licensee's actions to contain and, as needed, remediate the event, as well as of any NRC regulatory actions.
- ❖ With assistance from the appropriate NRC program office, RSLOs/RSAOs will communicate with States in a timely and factual manner, using plain language and with terms of relative risk whenever possible.
- ❖ RSLOs/RSAOs will disseminate information about unintended radioactive releases to the appropriate State organizations involved in environmental protection, public health and service, emergency management, and radiation control, as appropriate.
- ❖ RSLOs/RSAOs will describe the situation, identify responsible parties, provide supporting data when available, and describe the actions to be taken to address the issue, i.e., who, what, when, where, why, how, and for how long (see Attachment 1, Sample RSLO Communications Template).
- ❖ RSLOs/RSAOs will share with the Regions, FSME, and the appropriate NRC program office any State concerns or requests for information and any need for clarification about unintended radioactive releases.
- ❖ RSLOs/RSAOs will communicate key messages and respond to State inquiries using Frequently Asked Questions (FAQs) and other communication tools prepared by NRC program offices.
- ❖ When there is a high level of interest, the RSLOs/RSAOs may hold periodic calls with the relevant States in their particular Region, to include appropriate NRC staff, in order to provide and discuss updated information about the release, including licensee and NRC actions. Other federal partners, i.e., the Environmental Protection Agency, Federal Emergency Management Agency (FEMA), and external stakeholders, including interested State, county, and Congressional agencies, and members of Congress, may also be included in such calls, as appropriate.

## **NRC Program Office**

- ❖ Following initial notification of an unintended release of radioactive material, the Region will ensure that the lead NRC program office is cognizant of the release. The lead NRC program office will develop a communication plan, as appropriate, to address the inadvertent release (see Attachment 2, Sample Communication Plan Key Messages).
- ❖ In developing the communication plan, the lead NRC program office will draft communications that provide perspective on the relative risk of the release, and that communicate key messages and respond to FAQs. The lead NRC program office may also elect to develop, in coordination with the Office of Public Affairs (OPA), press releases, subject-specific web pages with FAQs, Fact Sheets, and Backgrounders. OPA relationships with national, regional and local news and other media organizations could be beneficial to staff for ensuring that communications about unintended radiological releases receive proper distribution. The lead NRC program office should consult with OPA as necessary and useful for this purpose. The lead NRC program office should also consult with OPA to consider use of agency assets such as the NRC Blog site for communicating unintended radiological releases.
- ❖ The lead NRC program office should also plan for, and provide timely scheduling information about, NRC follow up regulatory activities, periodic teleconferences, meetings, and workshops. The lead NRC program office should work closely with FSME, the RSLOs and RSAOs to facilitate timely communications that address the release.
- ❖ The lead NRC program office should consider the need for information by federal representatives and Senators regarding unintended releases of radioactive material. Staff should consult with the Office of Congressional Affairs in cases where federally elected officials may have interest in such reporting.

## **FSME**

- ❖ In coordination with the Region and the lead NRC program office, FSME will assist in providing State representatives and their organizations information about NRC activities related to unintended radioactive releases through FSME letters, which are distributed via electronic list servers derived from the State Contacts Database. This information will include key messages and FAQs developed by the NRC Program Offices.
- ❖ In addition to Governor- appointed SLOs and RCPDs, FSME may also inform the Conference of Radiation Control Program Directors, Organization of Agreement States, National Governors Association, National Association of Regulatory Utility Commissioners, the National Alliance of Radiation Readiness, as well as Native American Indian Tribes, as appropriate, about NRC regulatory activities concerning unintended radioactive releases and any opportunities to participate in such activities.

- ❖ When necessary, FSME may suggest and coordinate with the appropriate NRC headquarters and regional staff, a periodic call with States to provide and discuss information about unintended radioactive releases, including licensee and NRC actions. Interested State, county, and Congressional staff may also be invited to the call, as appropriate.

Attachments:

1. Sample RSLO/RSAO Communication Template
2. Sample Communication Plan Key Messages

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## ATTACHMENT 1 – SAMPLE RSLO/RSOA COMMUNICATIONS TEMPLATE

RSLO/RSOA informal initial communications with States or Tribes may include the following topical areas. RSLO/RSOA will follow up with any additionally developed key messages and address inquiries using NRC program office FAQs.

### ❖ **The Central Communication Issue:**

At 0000 hours CDT on DATE, personnel at XYZ Plant Units 1 and 2 (both operating at 100% power) determined that water leaking from an underground pipe inside the protected area contained tritium.

### ❖ **Preliminary/Apparent Cause of the Leak/Release:**

The leak emanated from an apparent failed gasket at a flange on a 3" pipe. The flange is located in a valve pit within 20 feet of the base of the connected water storage tank, outside of the plant buildings, but inside the plant protected area.

### ❖ **Characterization of the Leak/Release:**

Review of records and plant personnel interviews indicate the leak rate was approximately 10 to 15 gallons per day and it persisted over a 24-hour period between operator rounds in that area.

### ❖ **Status:**

The leak has been secured without complications and there was no impact on plant operations. It is estimated that up to XX gallons of tritium contaminated water leaked and was absorbed into the ground.

### ❖ **Plant Status and Actions:**

The plant is conducting an investigation to determine the cause of the leak and analyze the leak to determine the amount of radioactive material released to the protected area. Other than isolating the leak path, there has been no effect on plant status or operations – both units remain at 100% power.

### ❖ **NRC Status and Actions, and Federal Response Status:**

NRC Resident inspectors are following the licensee response to this event to verify compliance with procedures and NRC requirements. NRC Incident Response posture is unchanged at normal response mode. Regional FEMA and U.S. EPA counterparts have been informed and those agencies are not currently responding to this event.

### ❖ **NRC Request for State Counterpart Agency Update:**

What is the State's response posture and are there any unmet needs with which NRC can assist?

## ATTACHMENT 2 – SAMPLE COMMUNICATION PLAN KEY MESSAGES

- ❖ NRC is the federal agency responsible for protecting public health and safety with regard to the use of nuclear materials in commercial nuclear power plants that generate electricity. NRC regulations are based on sound science to make determinations that adequate protection of the public and the environment is maintained. As part of its responsibility, NRC requires its plant operators to have effluent and environmental monitoring programs to ensure impacts from nuclear plant operations are minimized. The results of this monitoring have shown the presence of natural and weapons fallout radiation and in a few instances, very low levels of radioactive material of nuclear plant origin (see Backgrounder on Radiation Protection and the “Tooth Fairy” Issue at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/tooth-fairy.html>).
- ❖ The NRC evaluates abnormal releases of tritium-contaminated water from nuclear power plants, particularly those that result in groundwater contamination. The NRC has repeatedly determined these releases either do not leave the power plant property, or involve such low levels of tritium that they do not pose a threat to public health and safety. Nonetheless, the NRC takes these unanticipated and unmonitored releases very seriously, and continues to review these incidents to ensure that nuclear power plant operators take appropriate action (see NRC Backgrounder on Tritium, Radiation Protection Limits, and Drinking Water Standards at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/tritium-radiation-fs.html>).
- ❖ NRC licensed facilities sometimes release very small amounts of radioactivity during normal operations. NRC regulations ensure plant operators monitor and control these releases to meet very strict radiation dose limits and publicly report these releases (see Fact Sheet on Analysis of Cancer Risk in Populations near Nuclear Facilities – Phase 1 Feasibility Study at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fs-analys-cancer-risk-study.html>).