

Proposed Resolution Plan for Tier 3 Recommendations 9, 10, and 11

Emergency Preparedness Activities Not Covered Elsewhere

Introduction

On July 13, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued SECY-12-0095, "Tier 3 Program Plans and 6-Month Status Update in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Subsequent Tsunami" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12208A210), in which the following Tier 3 items were included within one program plan:

- Emergency preparedness (EP) enhancements for prolonged station blackout (SBO) and multi-unit events;
- Emergency response data system (ERDS) capability;
- Additional EP topics for prolonged SBO and multi-unit events; and
- EP topics for decision-making, radiation monitoring, and public education.

These items collectively originated from Near-Term Task Force (NTTF) Recommendations 9.1, 9.2, 9.3, 10.1, 10.2, 10.3, 11.1, 11.2, 11.3, and 11.4. The program plan outlined in SECY-12-0095 described an approach to address these items collectively using an advance notice of proposed rulemaking (ANPR). The NRC staff has since determined that it would be more appropriate to address the recommendations in smaller groups, with more tailored paths to resolution. Those proposed resolution plans are discussed in more detail in the following sections:

- Section I. Recommendations Subsumed into the Mitigation of Beyond-Design-Basis Events Rulemaking
- Section II. Resolution Plan for the Portion of Recommendation 9.3 Not Included in the Mitigation of Beyond-Design-Basis Events Rulemaking
- Section III. Resolution Plan for Recommendation 10.3, ERDS Enhancements
- Section IV. Resolution Plan for Recommendation 11.2, Evaluate Recovery and Reentry Insights from Fukushima
- Section V. Resolution Plan for Recommendation 11.3, Efficacy of Real-Time Radiation Monitoring in Emergency Planning Zone and Onsite
- Section VI. Resolution Plan for Recommendation 11.4, Training in the Local Community on Radiation, Radiation Safety, and the Use of Potassium Iodide

The staff intends to resolve Recommendation 11.3 in a SECY paper to be provided in approximately one year. This will allow time for further documentation or stakeholder interactions as part of the process for closing this item. As discussed in this enclosure, subject to Commission approval, the staff plans to close the remaining recommendations based on the progress made to date and the results of the staff's assessments.

Section I. Recommendations Subsumed into the Mitigation of Beyond-Design-Basis Events Rulemaking

As approved in staff requirements memorandum (SRM) to SECY-14-0046, "Fifth 6-Month Status Update on Response to Lessons-Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Subsequent Tsunami," dated July 9, 2014 (ADAMS Accession No. ML14218A703), several of the Tier 3 EP items are being addressed through the Mitigation of Beyond-Design-Basis Events (MBDBE) rulemaking. These recommendations are as follows:

- Recommendation 9.1 to initiate rulemaking to require EP enhancements for multiunit events;
- Recommendation 9.2 to initiate rulemaking to require EP enhancements for prolonged SBO;
- Recommendation 9.3 (partial) to order licensees to perform various EP enhancements until the rulemaking is complete;
- Recommendation 10.2 to improve command and control structures; and
- Recommendation 11.1 to enhance resources to bring response equipment on site.

Since these are being addressed through the MBDBE rulemaking, they are no longer being tracked separately. In addition to these recommendations, the rulemaking also codifies Orders EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012 (ADAMS Accession No. ML12054A735), and EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," dated March 12, 2012, along with other safety enhancements. The Commission approved the publication of the draft rule for comment, subject to certain changes, in the SRM to SECY-15-0065, "Proposed Rule: Mitigation of Beyond-Design-Basis Events (RIN 3150-AJ49)," dated April 30, 2015 (ADAMS Accession No. ML15239A767). The staff expects to submit the final rule to the Commission by December 2016.

The staff has concluded that Recommendation 10.1, to analyze current protective equipment requirements for emergency responders and guidance based upon insights from the accident at Fukushima, is also being addressed by the MBDBE rulemaking. The staff has developed a Draft Regulatory Guide, DG-1319, "Integrated Response Capabilities for Beyond-Design-Basis Events," which will be published with the proposed rule and would endorse the Nuclear Energy Institute (NEI) guidance document NEI 13-06, "Enhancements to Emergency Response Capabilities for Beyond-Design-Basis Events and Severe Accidents," issued September 2014 (ADAMS Accession No. ML14269A230). NEI-13-06 contains the following statement:

For multiunit sites, ensure that sufficient quantities of radiation protection equipment and supplies are, or can be made available to support protracted operation of an expanded Emergency Response Organization (ERO).

Because Recommendation 10.1 is being addressed by the MBDBE rulemaking, the staff is also no longer tracking this recommendation as a separate item.

Section II. Resolution Plan for Portion of Recommendation 9.3 Not Included in the Mitigation of Beyond-Design-Basis Events Rulemaking

Background

NTTF Recommendation 9.3 included a recommendation that the NRC order licensees to maintain ERDS capability throughout an accident until the proposed MBDBE rulemaking is complete. When the ERDS voluntary participation program was introduced in August 1989 (Generic Letter (GL) 89-15, "Emergency Response Data System"), the NRC indicated that the implementation of the program was intended to have minimal impact on licensees. To this end, data points to be collected by ERDS were limited and licensees were not required to install new sensors if they did not already collect the requested data. The NRC staff also made it clear that ERDS was not considered to be a safety system.

The following is an excerpt from GL 89-15:

Will the ERDS be considered safety grade or require redundant equipment?

No. The ERDS feed will be as reliable as the current licensee equipment providing data to the licensee's own TSC [Technical Support Center] and EOF [Emergency Operations Facility]. The addition of new plant instrumentation or computer data points to provide ERDS data will not be required.

Current Status

Because of work on other, higher-priority NTTF recommendations, the NRC staff has not made progress on this recommendation since the development of the initial project plans in SECY-12-0095.

Discussion

The enhancements needed to address this recommendation would result in considerable financial burden upon licensees and, in some cases, may not be technically feasible. Since ERDS was not intended to be a safety system, enhancements to provide for redundancy, emergency power, cyber security, or other performance attributes would likely be challenging. While rigorous cost/benefit and technical feasibility analyses have not been performed, the staff believes that these analyses would ultimately demonstrate that it would be impractical and cost prohibitive to proceed.

The NRC's role in incident response is to obtain and evaluate event information and to assess the potential impact of the event on public health and safety and the environment. The NRC provides expert consultation, support, and assistance to State and local public safety officials responding to the event. ERDS provides the data set that NRC has determined is needed to support this role. In the event ERDS is unavailable, alternate methods are available for the NRC to carry out its incident response role (e.g., through phone communication). This factor makes it further unlikely that ERDS enhancements would represent a substantial safety enhancement and be justifiable under the NRC's backfit rule.

Stakeholder Interactions

The NRC staff provided the Fukushima subcommittee of the Advisory Committee on Reactor Safeguards (ACRS) an overview of the staff's plans to resolving the open Tier 2 and 3 recommendations during a meeting held on October 6, 2015. A similar meeting is planned with the ACRS full committee on November 5, 2015. In addition, the staff provided an overview of its proposed resolution plans for all the open Tier 2 and 3 recommendations during a Category 2 public meeting held on October 20, 2015. There has not been any other significant internal or external stakeholder interaction regarding this issue.

Conclusion and Recommendation

Based on the staff's assessment provided above, the staff proposes to close Recommendation 9.3.

Resources

There are no resource implications associated with closure of this recommendation.

Section III. Resolution Plan for Recommendation 10.3, ERDS Enhancements

Background

NTTF Recommendation 10.3 includes three sub-recommendations:

- a. that the NRC evaluate ERDS to determine an alternate method (e.g., via satellite) to transmit ERDS data that does not rely on hardwired infrastructure that could be unavailable during a severe natural disaster.
- b. that the NRC evaluate ERDS to determine whether the data set currently being received from each site is sufficient for modern assessment needs.
- c. that the NRC evaluate ERDS to determine whether it should be required to transmit continuously, such that no operator action is needed during an emergency.

As discussed above, the NRC's role in incident response is to obtain and evaluate event information and to assess the potential impact of the event on public health and safety and the environment. The NRC provides expert consultation, support, and assistance to State and local public safety officials responding to the event. ERDS provides the data set that NRC has determined is required to support this role, but the NRC has no operational responsibility during an accident. ERDS would be activated by the licensees during declared emergencies classified at the Alert or higher level to begin transmission to the NRC Operations Center. Even if ERDS is not operational, as has been the case in several emergency preparedness drills, the NRC has been able to obtain the necessary information to perform its role through other communication avenues.

Alternate Method of Transmitting ERDS Data

Whether to require an alternate method to transmit ERDS was also raised as a lessons-learned from the 2005 Hurricane Season. On August 29, 2005, Hurricane Katrina made landfall on the Gulf Coast of the U.S., adversely affecting communities, critical infrastructure, and communications systems. Hurricane Katrina directly affected three nuclear power plants regulated by the NRC: Grand Gulf Nuclear Station, River Bend Station, and Waterford Steam Electric Station. Although there were no safety impacts to these plants, their operational status was affected due to the instability of the regional electrical grid and loss of landline communications. As a result, communications were handled by backup satellite equipment, which was used to maintain contact between the NRC's regional offices, State responders, and affected nuclear power plants. In the case of Waterford, the NRC found that although portable satellite communications equipment was available, it did not function reliably due to heavy cloud cover, and operators were required to be outside for it to work. Further, cellular telephones were not functioning reliably due to infrastructure damage. It was discovered that some phones in "radio mode" were functioning, along with text messaging and email.

As a result of its assessment of these issues, the Commission noted in a March 30, 2006, report entitled, "Task Force Report - 2005 Hurricane Season Lessons Learned Final Report" (ADAMS Accession No. ML060900005), that the NRC should assess agency communications equipment and services associated with emergency notifications systems and recommend improvements in diversity and reliability as a high-priority activity. This recommendation is consistent with previous recommendations and lessons learned experienced during similar events, such as

those that occurred during Hurricanes Andrew (1992) and Gloria (1985). For example, the Hurricane Andrew task force recommended that portable satellite communications equipment be made available in the event of a loss of landline communications.

Following the events of Hurricane Katrina, there have been recent events, such as Hurricanes Rita (2005) and Wilma (2005) and the earthquakes in Fukushima, Japan (2011) and Mineral, Virginia (2011), all directly impacting communications systems at commercial nuclear power plants. The adverse impacts of these events strengthened the justification for NRC to assess the options for an alternative transmission solution (ATS) for ERDS to improve the reliability of data transmission. Subsequently, an ERDS alternative network study was planned and budgeted for in 2010, and the work was included as an optional task in the ERDS operations and maintenance contract that was awarded the same year. The task was executed in 2013.

The study looked into potential options capable of satisfying the network alternative requirements. The proposed solution is a multipoint redundant backup meshed data network based on cellular and satellite communication systems to lessen the impact of terrestrial outages whenever possible.

Sufficiency of ERDS Data Set

According to NUREG-1394, Revision 1, "Emergency Data System (ERDS) Implementation," issued June 1991 (ADAMS Accession No. ML080790038):

The tests of the ERDS concept have demonstrated that there is great value in using electronic data transmission for obtaining a limited set of reliable, time tagged data. The NRC response teams functioned more efficiently and their assessments were timelier. Major improvements in ability to focus on the significant factors and to predict the course of events were noted. The questions that were asked of the licensee were focused on overall status and course of action rather than simple data requests, therefore reducing the volume of communication and increasing the quality of the communication.

According to the Statements of Consideration for the final ERDS rule (*50 Federal Register* (FR) 40178, August 13, 1991):

Although the ERDS data does not portray every detail of a nuclear power reactor in an emergency situation, the Commission believes it does provide the data required by the NRC to perform its role during an emergency. The ERDS parameter list was selected based on the information the NRC Technical Teams need to perform their emergency response functions. Moreover, the set of ERDS data will not be the only input to the NRC. The Emergency Notification System (ENS), a voice communication system, will still be available to transmit data and any other relevant information that is not available through ERDS. In combination, the NRC will receive the necessary information to develop timely and appropriate evaluations of the event and to develop the necessary support actions to ensure protection to public health and safety.

The actual data set that is being transmitted by ERDS was determined based on the NRC's role in incident response.

Continuous Transmission of ERDS Data

Continuous transmission was addressed when the final ERDS rule was implemented. According to the Statements of Consideration for the rule (50 FR 40178, August 13, 1991):

The ERDS is designed to transfer needed reactor data from a nuclear power plant only during emergencies. It is not a system to constantly monitor any licensee. The concept of constant monitoring, such as the Nuclear Data Link, was considered after the Three Mile Island accident in 1979, but after much evaluation and deliberation, Congress did not approve the concept for funding.

Current Status

Because of work on other, higher-priority NTF recommendations, the NRC staff has not made significant progress on Recommendation 10.3.

Discussion

In order for the NRC to impose a new requirements to enhance the capabilities of the existing ERDS, the NRC would need to demonstrate that such a requirement represents a cost-justified substantial safety improvement, pursuant to Title 10 of the *Code of Federal Regulation* (10 CFR) Part 50, Section 50.109, "Backfitting."

Alternate Method of Transmitting ERDS Data

In order to further assess this recommendation, the staff would first need to gain consensus on the need for the ERDS data in light of the NRC's role in incident response. If it is determined that data is needed, then the NRC would investigate cost and other factors through a pilot project. The pilot would be conducted in close collaboration with a selected plant as a "test site" of the proposed strategy. At the conclusion of the pilot project, the staff would then provide recommendations to the Commission.

This initiative would require a collaborative effort between the NRC and licensee stakeholders to define requirements, identify possible alternatives, and develop a solution design. The identification and design of the alternative transmission solution would not only take into consideration the NRC need of ERDS incident response, but other NRC program uses that can leverage this capability as well. A detailed analysis will also need to be conducted to choose appropriate cellular and satellite communication vendors and ensure that physical and cyber security requirements are met.

However, given the NRC's role in incident response, the staff does not believe that further assessment will identify that requiring an alternative method of transmission of ERDS data is justified under 10 CFR 50.109. Given the resource implications associated with pursuing

additional study and the limited additional safety benefit, the staff believes that this recommendation should be closed.

Sufficiency of ERDS Data Set

The staff's initial plan for resolving this recommendation involved outreach with internal stakeholders on the NRC's Reactor Safety Team and other incident responders to determine whether a change to the current ERDS data set requirements is warranted. External outreach to stakeholders will also be necessary to determine whether licensees collect other data points that would be useful in emergencies and that are not currently provided to the NRC. However, requiring licensees to provide additional data points beyond the current ERDS data set requirements would need to be justified in accordance with 10 CFR 50.109, "Backfitting." Since this effort would not be considered a matter of adequate protection, the NRC staff would need to demonstrate that expanding the data set represents a cost-justified substantial safety enhancement. It is unlikely that this could be demonstrated; as such, the staff's assessment is that this recommendation should be closed.

Continuous Transmission of ERDS Data

The NRC's approach to date has been to encourage licensees to voluntarily transmit ERDS data sets continuously by highlighting the advantages to them. For example, nuclear power plants that have opted to transmit ERDS data continuously do not have to conduct quarterly tests, as no input will be needed from their operators to support the testing. These licensees are notified of upcoming test dates, completion, and results. These licensees would also not be challenged to meet the requirement to activate ERDS within 60 minutes of the onset of an event. Currently, there are 40 units at 26 sites that voluntarily transmit ERDS data continuously.

Requiring licensees to continuously transmit ERDS data would necessitate rulemaking to change the existing requirements. However, the staff finds it unlikely that such a rulemaking would provide a cost-justified substantial safety improvement. As such, the staff's assessment is that the rule would not be justified as necessary for adequate protection or as a substantial cost-beneficial safety improvement. The staff believes that the NRC should continue to use different fora with licensees to highlight the advantages and encourage them to adopt continuous transmission voluntarily.

Summary

As discussed above, the NRC does not have operational responsibility during an emergency. In addition, alternate means exist for the NRC to obtain plant information during an event and the NRC has experience during drills and exercises in responding successfully with ERDS unavailable. As such, the staff has concluded that the changes discussed under NTTF Recommendation 10.3 could not be justified under 10 CFR 50.109.

Stakeholder Interactions

The NRC staff provided the Fukushima subcommittee of the ACRS an overview of the staff's plans to resolving the open Tier 2 and 3 recommendations during a meeting held on October 6, 2015. A similar meeting is planned with the ACRS full committee on November 5, 2015. In addition, the staff provided an overview of its proposed resolution plans for all the open Tier 2 and 3 recommendations during a Category 2 public meeting held on October 20, 2015. There has not been any other significant internal or external stakeholder interaction regarding this issue.

However, as discussed above, the staff has and will continue to interact with external stakeholders to highlight the advantages of transmitting ERDS data continuously and encourage them to adopt continuous transmission voluntarily.

Conclusion and Recommendation

Based on the staff's assessment provided above, the staff proposes to close Recommendation 10.3.

Resources

There are no resource implications associated with closure of this recommendation.

Section IV. Resolution Plan for Recommendation 11.2, Evaluate Recovery and Reentry Insights from Fukushima

Background

NTTF Recommendation 11.2 recommended that the NRC work with the Federal Emergency Management Agency (FEMA), States, and other external stakeholders to evaluate insights from the implementation of EP at Fukushima to identify potential enhancements to the U.S. decision-making framework, including the concepts of recovery and reentry.

Specific guidance for response to a nuclear or radiological event is contained in the current version of the Nuclear/Radiological Incident Annex (NRIA) to the National Response Framework, which can be found at <https://www.s.gov/media-library/assets/documents/25554>. The NRIA is being revised to address recovery in addition to response and will include lessons learned from the Fukushima event as well as other evaluations, such as those related to radiological dispersal devices. FEMA is leading an interagency effort to make those revisions.

The revised NRIA will be an annex to both the Response and Recovery Federal Interagency Operational Plans. It references the needs of State and local response organizations as they relate to relocation and reentry of those displaced by a radiological event.

Current Status

The NRC staff continues to work with other Federal agencies on revising the NRIA. The draft revised NRIA was used during the first phase of the Southern Exposure 2015 exercise, which was conducted in July. All involved Federal departments and agencies reviewed the draft, and the revised draft was used during the Southern Exposure recovery tabletop exercise in September 2015. Lessons learned during all phases of the Southern Exposure exercise will be incorporated into the document prior to its final release, which is currently planned for later in 2015.

Discussion

The NRC staff is continuing to work on matters relevant to the NRIA as part of its normal interagency activities. These interactions have included consideration of lessons learned from the Fukushima event, as well as other analyses and the insights from various exercises and actual emergencies. These efforts will continue to take advantage of the experiences in Japan with the cleanup and approved reentry of populations to evacuated areas, such as the September 2015 evacuation order that was lifted for the Japanese town of Naraha, about 12 miles south of the Fukushima Dai-ichi nuclear plant site.

Because of progress made to date in addressing this recommendation, the NRC staff's assessment is that Recommendation 11.2 should be closed. Additional interagency collaboration on NRIA updates will be conducted consistent with normal agencies' processes and practices. The NRC will continue to keep the Commission informed of developments in this area, as appropriate.

Stakeholder Interactions

The NRC staff provided the Fukushima subcommittee of the ACRS an overview of the staff's plans to resolve the open Tier 2 and 3 recommendations during a meeting held on October 6, 2015. A similar meeting is planned with the ACRS full committee on November 5, 2015. In addition, the staff provided an overview of its proposed resolution plans for all the open Tier 2 and 3 recommendations during a Category 2 public meeting held on October 20, 2015.

As discussed above, the staff has had extensive engagement with other Federal agencies as part of updating the NRIA. The core planning team for this revision includes the U.S. Department of Defense, the U.S. Department of Energy, the U.S. Department of Homeland Security, the Environmental Protection Agency, the Federal Bureau of Investigations, FEMA, and the NRC. Interactions with these stakeholders are expected to continue as the NRIA update is completed.

Conclusion and Recommendation

Based on the staff's assessment provided above, the staff proposes to close Recommendation 11.2.

Resources

There are no resource implications associated with closure of this recommendation.

Section V. Resolution Plan for Recommendation 11.3, Efficacy of Real-Time Radiation Monitoring in Emergency Planning Zone and Onsite

Background

NTTF Recommendation 11.3 recommended that the NRC staff study the efficacy of real-time radiation monitoring on site and within the emergency planning zones (EPZs) (including consideration of alternating current power independence and real-time availability on the internet). There is extensive regulatory history associated with the evaluation of real-time radiation monitoring on site and within the EPZs, in which policy decisions have been previously made regarding their efficacy. In its evaluation, the NTTF concluded that “as long as field teams are adequately staffed, equipped, and capable of transit given the nature of the natural disaster, field monitoring remains an effective method to acquire radiation data.”

Current Status

In response to the recommendation, the staff is documenting the historical background of real-time radiation monitoring systems and the justifications for the historical decisions. In December 1980, the staff specified “radiation exposure meters (continuous indication at fixed locations),” in addition to provisions for “plant and environs radiation (portable instrumentation),” in Regulatory Guide (RG) 1.97, “Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants,” revised June 2013. However, in the March 1983 revision of the guide, staff omitted continuous indication, noting that:

It is unlikely that a few fixed-station area monitors could provide sufficiently reliable information to be of use in detecting releases from unmonitored containment release points. However, there may be circumstances in which such a system of monitors may be useful. The decision to install such a system is left to the licensee.

Based upon insights from the severe accident studies conducted since the Three Mile Island accident, the staff has taken the position that the initial protective action recommendation made by the licensee upon declaration of a General Emergency be based primarily on plant conditions rather than radiological assessment data. This protocol has the capability to initiate protective actions before the onset of the release. The Japanese protocol at the time of the Fukushima accident was to base protective action recommendations upon actual radiation measurements. Wind direction in the early days of the event was toward offshore and away from the fixed radiation monitors. There is also anecdotal information that the fixed area radiation monitors surrounding Fukushima were adversely affected by the tsunami.

Because of work on other, higher-priority NTTF recommendations, the NRC staff has not made substantive progress on this recommendation since the development of the initial project plans in SECY-12-0095, and additional assessment and documentation is needed.

Discussion

The staff will further evaluate the lessons learned from Fukushima with regard to the radiation monitoring systems in use at the time of the event to discern whether this experience warrants

reconsideration of the actions taken with RG 1.97, Revision 3, and subsequent revisions. However, the staff finds it unlikely that changes to require real-time radiation monitoring would provide a cost-justified substantial safety improvement, as needed to impose additional requirements on licensees under 10 CFR 50.109.

Stakeholder Interactions

The NRC staff provided the Fukushima subcommittee of the ACRS an overview of the staff's plans to resolving the open Tier 2 and 3 recommendations during a meeting held on October 6, 2015. A similar meeting is planned with the ACRS full committee on November 5, 2015. In addition, the staff provided an overview of its proposed resolution plans for all the open Tier 2 and 3 recommendations during a Category 2 public meeting held on October 20, 2015. There has not been any other significant internal or external stakeholder interaction specific to this recommendation.

Conclusion and Recommendation

As discussed above, the staff proposes to resolve this recommendation in a SECY paper to be provided in approximately one year. This will allow time for further assessment and documentation, along with internal and external engagement. The follow-up SECY will include a more detailed discussion of historical assessments and their applicability to the closure of this recommendation.

Resources

The staff estimates that approximately 0.25 FTE is needed in FY 2016 for NSIR to conduct the research and analysis needed to resolve this recommendation. The resources are currently budgeted in FY 2016 in the Operating Reactors Business Line, Licensing Product Line, Fukushima NTTF Product. Additional resources may be needed in subsequent years, depending on the results of this assessment. FY 2017 resources and beyond will be addressed through the planning, budget, and performance management process.

Section VI. Resolution Plan for Recommendation 11.4, Training in the Local Community on Radiation, Radiation Safety, and the Use of Potassium Iodide

Background

NTTF Recommendation 11.4 recommended that the NRC conduct training, in coordination with the appropriate Federal partners, on radiation, radiation safety, and appropriate use of potassium iodide (KI) in the local community around each nuclear power plant.

The requirements related to public information and education are contained in 10 CFR 50.47(b)(7) and (15), as well as Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities" (Section IV.D.2) to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," issued November 1980, provides guidance to licensees and State and local authorities on meeting those standards.

Additional guidance from FEMA to State, local, and Tribal authorities on the development of radiological emergency plans is contained in FEMA's Radiological Emergency Preparedness (REP) Program Manual. This manual provides supplemental guidance on KI for the public located within the plume EPZ.

As discussed below, in accordance with a FEMA/NRC Memorandum of Understanding (MOU), FEMA takes the lead in developing public information and educational programs.

Current Status

The adequacy of State, local, and Tribal REP plans and preparedness is continuously evaluated by FEMA based on: (1) the review and approval of significant changes to offsite REP plans, (2) the annual letter of certification (including a detailed review of the public education and information process) provided by the respective State emergency management agency to FEMA, and (3) evaluation by FEMA of the biennial REP exercises. The FEMA REP Program Manual also provides guidance for review and evaluation of public information materials distributed by offsite response organizations and licensees for nuclear power plants, as well as a comprehensive public information review checklist.

FEMA has extensive guidance on public information and education for the community around each nuclear power plant, including radiation, radiation safety and the appropriate use of KI, which is periodically assessed to ensure continued reasonable assurance of adequate protection of public health and safety. According to FEMA, several State and local emergency management authorities have looked at the adequacy of their public outreach materials related to a commercial nuclear power plant event, and have been or are revisiting them subsequent to the Fukushima Dai-ichi event.

Discussion

Based on the FEMA/NRC MOU, contained in Appendix A to 44 CFR Part 353, Section III.H (Public Information and Education Programs), FEMA will take the lead in developing public information and educational programs. The NRC will assist FEMA by reviewing, for accuracy, educational materials concerning radiation, and its hazards and information regarding appropriate actions to be taken by the general public in the event of an accident involving radioactive materials.

FEMA is engaging Federal, State, and local REP expertise, as well as developing a partnership with industry, as part of the activities for an REP Program Outreach Integrated Process Team. The REP Program Outreach Integrated Process Team will engage stakeholders through fora, such as the Federal Radiological Preparedness Coordinating Committee, Conference of Radiation Control Program Directors, National REP Conference, National Emergency Management Association, and the International Association of Emergency Managers.

Because of progress made to date by FEMA in engaging the public around nuclear plant sites and using lessons learned and sharing best practices, the NRC staff's assessment is that Recommendation 11.4 should be closed. Additional collaboration between NRC and FEMA on related activities will continue as part of the FEMA/NRC MOU. The NRC staff will continue to monitor and work with FEMA as part of the FEMA/NRC Steering Committee on Emergency Planning, established under the interagency MOU, and will provide information with respect to training awareness to the Commission as part of the annual SECY paper on emergency preparedness and incident response.

Stakeholder Interactions

The NRC staff provided the Fukushima subcommittee of the ACRS an overview of the staff's plans to resolving the open Tier 2 and 3 recommendations during a meeting held on October 6, 2015. A similar meeting is planned with the ACRS full committee on November 5, 2015. In addition, the staff provided an overview of its proposed resolution plans for all the open Tier 2 and 3 recommendations during a Category 2 public meeting held on October 20, 2015.

As discussed above, the NRC has and will continue to engage with FEMA as part of the activities related to the NRC/FEMA MOU.

Conclusion and Recommendation

Based on the staff's assessment provided above, the staff proposes to close Recommendation 11.4.

Resources

The staff estimates that approximately 0.2 FTE is needed for NSIR to support the FEMA REP Program Outreach Integrated Process Team activities for FY 2016. The resources are currently budgeted in FY 2016 in the Operating Reactors Business Line, Licensing Product Line,

Fukushima NTTF Product. Additional resources would be needed if FEMA requests further assistance from NRC on engagement of stakeholders. FY 2017 resources and beyond will be addressed through the planning, budget, and performance management process.