Communication Plan for Inspections of Mitigating Strategies Equipment
May 2011

Goals

To communicate the status and results from the initial inspections performed by U.S. Nuclear Regulatory Commission (NRC) staff inspectors at US nuclear plant sites to assess their capabilities to respond to severe events. This will include:

- Informing stakeholders, including the general public and the media, of the scope, progress, and preliminary results from the inspections; and
- With the information from the inspections, informing the stakeholders, including the general public and the media, of the next steps that the NRC staff intends to take.

BACKGROUND

As a result of the extraordinary natural events (earthquake, tsunami) that occurred at the Fukushima Diaichi Nuclear Site on March 11, four of the six the units on site lost the capability to safely cool down and manage their nuclear fuel. The nuclear fuel damage from this event resulted in significant releases of radioactivity, and major public evacuations.

To assess the capabilities of US Nuclear Plants to respond to similar major losses of plant equipment the NRC is performing inspections at all US nuclear sites. These inspections are based upon current regulatory requirements, and additionally assess plant capabilities that are not regulatory requirements.

The first inspection (Temporary Instruction TI-183) examined:

- Plants' ability to respond to major losses of equipment from unexpected fires or explosions. This is a current regulatory requirement, sometimes referred to as B.5.b, which has now been incorporated into 10 CFR 50.54(hh)(2).
- Plants' ability to cope with the loss of all electric power from both off site sources and emergency generators, also known as "station blackout". This is a current regulatory requirement.
- Plants' ability to respond to major flooding events. The capabilities for each plant are tailored to the potential flooding challenges where the plant is located. This is a current regulatory requirement.
- Plants' capabilities to respond to fires and flooding in combination with earthquake events. This is not a current regulatory requirement.

The second inspection (Temporary Instruction TI-184) assesses plants' capabilities to respond to catastrophic accidents more extensive than the plants were designed for. These preparations are called "Severe Accident Management Guidelines", and are sometimes referred to as SAMGs. Nuclear Plant Licensees have voluntarily committed to developing these guidelines to respond to severe core damage accidents, and they are not current regulatory requirements.

Key messages

- **The results of the TI 2515/183 inspections indicate general compliance with the regulations with some discrepancies noted.**

  The issues identified by TI 2515/183 can be generally categorized into the following areas: (i) failure to maintain equipment, (ii) gaps in operator training, and (iii) inadequate maintenance of procedures. This is based upon a preliminary review of the findings and may change as a result of further evaluation.

- **Following the events in Japan, the NRC credited the requirements for licensees to have capabilities (mitigating strategies) in place to respond to catastrophic events.**

  The initial assessment of the Japanese event by NRC staff concluded that similar consequences have been addressed by regulations applicable to U.S. nuclear power reactors. Licensees have developed capabilities to respond to major losses of equipment, loss of electrical power, and flooding on a site specific basis.

- **The inspections assess U.S. Nuclear Plants' capabilities to respond to extraordinary plant challenges.**

  The inspections focused on US Nuclear Plants' capabilities to respond to losses of redundant equipment and systems. Nuclear Plants are designed with multiple systems to perform the same function, allowing plant operators multiple options to safely manage nuclear fuel during events or problems. These inspections assess capability of plants to respond to losses of redundant systems. For example, during potential station blackout scenarios, plants are assumed to lose all sources of alternating current (all off site sources, all emergency generators).

- **The inspections were focused on the consequences of, rather than the specific natural events that occurred in Japan.**

  Due to the wide site variations at US nuclear sites, the focus of the initial inspections were focused on the consequences of the events. For example, many US nuclear sites are not susceptible to tsunami events (e.g. Midwest plants, Arizona plants). Flooding events (from external sources or from major plant water systems) would yield consequences similar to what occurred in Japan. This assessment approach addresses more potential events than what occurred recently in Japan.

- **The inspections assessed both required plant capabilities and some capabilities that are not current regulatory requirements.**

  As part of the regulatory process, the events from the Japanese event and the capabilities of US Nuclear Plants will be assessed to determine if additional regulatory requirements are necessary. There are significant differences between the vulnerabilities at the Japanese Fukushima site and the US sites. This is due to different natural threats at each site location. For example, inland plants are not susceptible to tsunamis.

- **The information from these inspections (and what has been requested under Bulletin 2011-01) will be used to determine future regulatory actions.**

  The results from these initial inspections will be assessed, and appropriate actions taken for any identified discrepancies. As the inspection results are assessed, and more is learned from the Japanese Nuclear Events, additional follow-up inspections or requirements may be recommended to the commission to ensure the continued safety of the US nuclear power plants.

Audience

External
NRC power reactor licensees
General public
Media
Public interest groups (e.g., Alliance for Nuclear Responsibility, Beyond Nuclear, etc.)
INPO
NEI
U.S. Senate/Congress
OSHA

Internal
NRC Commission
Office of the Executive Director of Operations (OEDO)
Office of Nuclear Reactor Regulation (NRR)
Regional Managers and Inspectors
Office of Public Affairs (OPA)
Office of Congressional Affairs (OCA)
Office of General Counsel (OGC)
Office of Nuclear Security and Incident Response (NSIR)

Communication Team

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Communication Tools

This communication plan is intended to align internal stakeholders, so that consistent terms and approaches are used when communicating information on the inspection report results.

A press release is will be issued when the inspection report results are publically available. Additionally the inspection reports will be available on the NRC public WEB site.

Timeline

Time Sequence Goal	ACTION	Responsible Organization
N - 1 day	Distribute Communication Plan, Questions and Answers, and Press Release to Communications Team Members. Determine licensee intentions for press release or other communications.	DIRS (T.Kobetz)
N	Finalize the initial inspection reports for TI-183. Put into ADAMS.	Regions
	Notify Congressional Offices.	OCA (T. Riley)
	Notify selected State officials. Note availability of inspection report information on NRC webpage at: http://www.nrc.gov/XXXXXXXXXXXXX	Regional SLOs
	Notify selected county and other local elected officials.	Regional SLOs

	Finalize and issue press release.	OPA (S. Burnell)
N + 1 day	Prepare EDO Daily Note or EDO Weekly Highlight	DIRS (T.Kobetz)
End	Notify OPA that actions have been completed.	DIRS (W. Cartwright)

Q's & A's

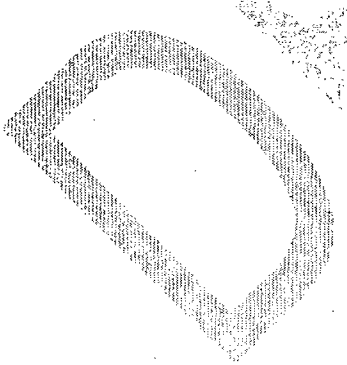
Q. What problems were found, and have they been fixed?

Examples include: (1) ineffective maintenance of equipment; (2) ineffective training; and, (3) inadequate testing of the equipment. In isolation, these incidents do not significantly degrade the licensees' ability to mitigate challenges to key safety functions during beyond design basis events.

Licensee's will be responsible for correcting any problems found. The time to correct any problems found will be based upon the significance of the problem. This is a requirement of the corrective action programs that licensees are required to have.

Q. What problems were found at my local plant from these inspections? Why is the NRC hiding its findings?

Every plant's inspection report will be publically available in ADAMS and will describe any non-security-related findings. The NRC always issues public inspection reports for all its activities; security-related information cannot be made public, but the NRC does note when such issues are found and corrected.



Q. What is B.5.b?

After the terrorist attacks of 9/11, the NRC issued an Interim Compensatory Measures (ICM) Order on February 25, 2002, requiring power reactor licensees to take certain actions to prevent or mitigate terrorist attacks. Section B.5.b of the ICM Order required licensees to:

> "Develop specific guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities using existing or readily available resources (equipment and personnel) that can be effectively implemented under the circumstances associated with loss of large areas of the plant due to explosions or fire."

The original requirement of Section B.5.b was intentionally broad and encompassing. The NRC expected that more specific actions would be identified as the NRC and nuclear industry developed comprehensive responses to the events of 9/11. The independent assessments performed subsequently to the issuance of the ICM Order confirmed this expectation and specific mitigating strategies have been developed, taking into account differences in plant design and configuration. The license conditions reflect this higher level of understanding developed since issuance of the original Order. Section B.5.b has now been incorporated into 10 CFR 50.54(hh)(2).

Q. What are mitigating strategies? What are B.5.b mitigating strategies?

In general, mitigating strategies are plans, procedures, and pre-staged equipment whose intent is to minimize the effects of adverse events or accidents. The B.5.b mitigating strategies were developed to respond to terrorist attacks. To protect the public health and safety and the common defense and security, the specific details of the B.5.b mitigating strategies cannot be shared with the public. The NRC does not publicly release information that could assist terrorists to make nuclear power plants less safe. Since the NRC cannot share the details of the mitigating strategies with the public, we have given briefings to elected officials such as state governors and members of Congress to share sensitive unclassified or classified information, as appropriate. In addition, the NRC routinely coordinates with many security-related organizations within the Federal Government via classified briefings.

Q. Why is the NRC delaying the documentation of non-compliances found using TI 2515/183?

Licensees were informed of potential non-compliances (findings) during the inspection. These will be available in the inspection reports. The NRC will use its normal processes to further evaluate potential findings. The NRC has decided to issue the TI 2515/183 inspection reports by May 13, before the process for evaluating potential findings is complete, to help inform stakeholders in a timely manner.

Q. Why was a Bulletin issued? Shouldn't TI 2515/183 have determined if licensees are in compliance?

Inspectors using TI 2515/183 can only review a sample of the mitigating strategies due to the short timeframe and limits on NRC resources. As a result of findings identified during the TI 2515/183 inspections and from other sources, the NRC has determined that issuance of a Bulletin is warranted. The Bulletin will enable a more comprehensive look at licensee's implementation of mitigating strategies to ensure compliance is being maintained.

The purpose of the Bulletin is to obtain additional information regarding licensee compliance with the 10 CFR 50.54(hh)(2) requirements. The information requested by the Bulletin will be used to determine if further regulatory action is warranted, if inspection programs need to be enhanced, or if additional assessment of licensee mitigating strategies is needed.

Q. The NRC has stated that B.5.b measures would help protect U.S. citizens from the type of disaster that occurred at the Japanese plants. How is this possible if U.S. plants are not in compliance with these requirements?

Individual non-compliances have been identified as issues that only affect a small part of the overall mitigation strategy. For any individual plant, the NRC has not found that the overall mitigation strategy is significantly degraded due to non-compliances. Licensees are informed during the inspection of potential non-compliances and are expected to fix these issues in a timely manner. The B.5.b measures were not credited as the sole means of protecting U.S. citizens from the type of disaster that occurred in Japan but as a contributor to assurance of safe operation along with other contributors (e.g., defense-in-depth).

The purpose of the Bulletin is to require additional information regarding licensee compliance with the 10 CFR 50.54(hh)(2) requirements. The information requested by the Bulletin will be used to determine if further regulatory action is warranted, if inspection programs need to be enhanced, or if additional assessment of licensee mitigating strategies is needed.

Q. The Japanese event happened on March 11, 2011. Why has it taken so long to issue take action?

The NRC is taking actions based upon information as it becomes available. Following the March 11, 2011 earthquake in Japan, the NRC has taken a number of steps to learn from the event at Fukushima Daiichi and ensure that US nuclear plants are operating safely. On March 23, the NRC issued TI 2515/183 requiring its inspectors to assess the adequacy of actions taken by reactor licensees following the event. The inspectors have completed the inspection activities associated with TI 2515/183 and are expected to complete the documentation of their results by May 13. Based upon these results, the NRC has determined that it is prudent to follow-up with a Bulletin on the mitigations strategies associated with 10 CFR 50.54(hh)(2).

Q. Why is the NRC inspecting licensees for items that are not regulatory requirements?

The Japanese event has provided the industry operating experience. Assessment of the Japanese event, and comparing that to the capabilities of US nuclear plants will determine if new regulatory requirements are necessary.