

September 6, 2011

MEMORANDUM TO: Martin J. Virgilio
Deputy Executive Director for Reactor and Preparedness
Programs
Office of the Executive Director for Operations

FROM: David L. Skeen, Director **/RA/**
Japan Lessons-Learned Project Directorate
Office of the Executive Director for Operations

SUBJECT: SUMMARY OF AUGUST 31, 2011 PUBLIC MEETING TO
SOLICIT COMMENTS ON NEAR-TERM TASK FORCE REPORT

On August 31, 2011, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and a panel of external stakeholders. The NRC was represented by senior managers and staff. The stakeholder panel consisted of a representative from the Federal Emergency Management Agency (FEMA), a representative from the nuclear industry, and a representative from a non-governmental organization (NGO). The meeting was held at the NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland.

The purpose of this meeting was to solicit public comments on actions the NRC staff is considering taking to address the *Near-Term Task Force (NTTF) Recommendations for Enhancing Reactor Safety in the 21st Century* report, issued July 12, 2011 [Agencywide Documents Access Management System (ADAMS) Accession Number ML111861807]. The meeting focused on the following recommendations that are under consideration for implementation without unnecessary delay:

- Recommendation 2 – Seismic/Flood Protection;
- Recommendation 4 – Station Blackout (SBO)/Protection – Capacity of Equipment;
- Recommendation 5 – Hardened Vent Designs;
- Recommendation 7 – Spent Fuel Pool Enhancements;
- Recommendation 8 – Integrating Emergency Response Capabilities; and,
- Recommendation 9 – Emergency Plans.

The NRC representatives went over each of these recommendations and solicited comments from the panelists. An opportunity was then provided for other members of the public to provide comments.

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One major message provided by the FEMA representative was the notion of facilities and individuals being self-sufficient for the first 72 hours after a natural disaster. The FEMA representative highlighted FEMA's intent to continue to cooperate with the NRC in enhancing offsite response policies, processes, and procedures. The FEMA representative also indicated a concern with "overload," or the NRC taking on too many actions at one time.

Major overarching comments from the nuclear industry indicated a desire to use other regulatory vehicles in lieu of the orders proposed by the NTTF report. Additionally, for any rulemaking, it was proposed that advanced notice be provided so that stakeholders could provide feedback in support of moving the process forward.

NGO representatives and members of the general public voiced interest in better understanding how other existing regulatory processes will integrate with implementation activities for the NTTF report. The NGO representative on the stakeholder panel also commented that power uprates and license renewal activities should be suspended until the lessons-learned from Fukushima are complete. During the public comment period, a representative of another NGO indicated that orders would be an appropriate vehicle for achieving changes identified in the NTTF report if conducted in as public a manner as possible. It was noted that in the past orders to address certain technical issues may have taken a long time to issue. It was proposed that moving quickly would be better to prevent the nuclear industry from "stonewalling" the NRC.

The following sections provide an overview of the discussion of each NTTF recommendation addressed at the public meeting.

RECOMMENDATION 2

The NGO representative questioned limiting the recommendation to seismic and flooding hazards. He offered that Recommendation 2.1 (concerning proposed licensee reevaluation of seismic and flooding hazards) and Recommendation 2.3 (regarding the performance of seismic and flooding hazard walkdowns) should include tornados and fire protection as well. Additionally, he noted that the level of proposed oversight of these activities by the NRC was not indicated. Finally, he commented that the activities proposed in Recommendation 2.2 (regarding proposed rulemaking addressing seismic and flooding hazards) and Recommendation 2.3 should be accomplished under the "security of Commission orders."

There was some discussion by the nuclear industry representative regarding the timing of the proposed reevaluation of seismic and flooding hazards (Recommendation 2.1). He expressed concern regarding the timing of the seismic reevaluations, as evaluations are already currently being conducted in support of the resolution activities for Generic Issue 199 (GI-199), *Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States on Existing Plants*. During the public comment period, the representative of another NGO indicated that GI-199 remains unresolved and until GI-199 is resolved the other related recommendations may not be useful.

It was indicated by the nuclear industry representative that it may be better to perform the seismic reevaluations after the walkdowns proposed in Recommendation 2.3 are complete. He also noted that the seismic walkdowns may take longer than the flooding walkdowns due to the need to address accessibility issues. The NRC representatives questioned whether such walkdowns should be performed on a periodic basis. The nuclear industry representative

commented that the walkdowns should be performed on a one-time basis. The NGO representative noted that the current licensing bases for domestic facilities are “inconsistent” and “dated,” so basing the proposed walkdowns on current facility licensing bases does not appear to address the identified goal. He also indicated his belief that the licensing bases for the Fukushima plants were inadequate.

The ten-year periodicity of the seismic and flooding hazard reevaluations of Recommendation 2.2 was discussed. The nuclear industry representative indicated that facility design bases should be updated whenever new information is available.

RECOMMENDATION 4

Recommendation 4 focused on strengthening SBO mitigation capability under design basis and beyond design basis external events.

The nuclear industry representative indicated the industry’s support for the proposed rulemaking in Recommendation 4.1, which would require enhancements to facility SBO coping capabilities. He indicated that the Institute for Nuclear Power Operations (INPO) has been asking the nuclear industry to extend facility minimum coping times to 24 hours. He commented that actions related to SBO coping time should be focused on items that could realistically be accomplished in the next 12-18 months.

The reason for not ordering domestic nuclear facilities to be able to cope with an SBO for eight hours was questioned by the NGO representative. He commented further that the solution is to simply add batteries, as they are cheap, and the proposed rulemaking in Recommendation 4.1 is going that way anyway. During the public comment period, a member of the public commented that there are additional issues that need to be considered when adding batteries, including room and sufficient outage time.

NRC representatives questioned the amount of time it would take to get all U.S. nuclear facilities to a minimum coping time of eight hours. The nuclear industry representative indicated that an evaluation of SBO coping times would take six months, with some currently undetermined amount of time for implementation.

The nuclear industry representative indicated that a concept of regional equipment support centers for slower developing events is being reviewed by the nuclear industry. He also indicated that the issue is not simple. The FEMA representative indicated that discussions are underway to evaluate the ability of the Federal Government to transport equipment stored at such offsite facilities.

RECOMMENDATION 5

Regarding Recommendation 5 related to the implementation of hardened vents at BWR facilities, the nuclear industry representative commented that based on the event at Fukushima, the ability to vent the primary containment during a loss of normal onsite alternating current (ac) power is an important topic. However, he indicated that there was not enough information to gain a complete understanding of what happened. Therefore, additional information would be needed to support Recommendations 5.1 and 5.2 regarding the need to add hardened vents to BWR Mark II containments or other containment designs.

The NGO representative indicated that BWR Mark II containments are subject to the same vulnerabilities as BWR Mark I containments. The NGO representative questioned why the NRC has not already required the installation of hardened vents on BWR Mark II containments.

Additionally, the NGO representative indicated that the activities for Recommendation 6 (regarding hydrogen control and mitigation, and which was not part of the designated scope of this public meeting) should not be deferred. He stated that this issue should be brought before the Advisory Committee for Reactor Safeguards (ACRS) as it is a highly technical group. The NRC representatives questioned whether the NGO representative was proposing that the ACRS do the review independently or exercise its current role of providing advice to the Commission on the NRC staff's review. The NGO representative clarified that his comment was intended to have the ACRS review the NRC staff's evaluation.

RECOMMENDATION 7

Regarding Recommendation 7, which addressed the enhancement of spent fuel pool (SFP) makeup capability and instrumentation, the nuclear industry representative commented that some benefit could be achieved from having the capability to remotely monitor SFP parameters, but that monitoring from the control room may not be necessary. An NRC representative questioned whether SFP instrumentation should be considered "reliable" as opposed to "safety-related" in the context of Regulatory Guide 1.97, *Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants*. The nuclear industry representative noted that SFP equipment should not be considered safety-related since events which could drain a SFP take on the order of days to develop. He also noted that, as there are measures in place to get water to the spent fuel pool, there did not appear to be a need for a seismically-qualified spent fuel pool spray line.

The NGO representative commented that the SFPs at the Fukushima units were much less full than typical SFPs at U.S. facilities. He noted that increased amounts of spent fuel in SFPs at U.S. facilities would affect the ability to cool the SFPs. He indicated that as the potential radiological source term associated with the failure of a SFP is directly related to the amount of fuel in the SFP, the movement of spent fuel to dry cask storage should be accelerated at U.S. facilities. During the public comment period, a representative of another NGO indicated that after September 11, 2001, the NRC missed the opportunity to require the removal of the spent fuel from the SFPs. He indicated that speed was warranted to take that action now.

RECOMMENDATION 8

Regarding Recommendation 8, which addressed strengthening and integrating onsite emergency response capabilities, the NGO representative indicated general support for the orders and rulemaking proposed by the NTTF report. He specifically supported Recommendations 8.1 (ordering licensees to modify EOP guidelines), 8.3 (ordering modifications to licensee Technical Specifications related to EOP guidelines), and 8.4 (initiate rulemaking to require more hands-on training exercises related to emergency response). However, he also noted that the NTTF report did not look at changes to the external environment around domestic facilities since initial licensing. Specifically, changes to the traffic patterns and population density were cited, as well as the potential economic damage from an event.

The FEMA representative emphasized the importance of good communication in the event of an emergency between onsite licensee personnel and offsite responders. He emphasized that such communication was important not just between FEMA and the NRC, but also with the public in general. Further, he supported Recommendation 8.4 and its emphasis for the need for additional hands-on training with emergency response.

The nuclear industry representative noted that given the complexity of Recommendations 8.1 and 8.4, they would likely not be completed quickly. He proposed that the near-term focus should be on improving training standards and programs. He proposed that further discussions need to be held on the modification of Technical Specifications as proposed in Recommendations 8.2 and 8.3, given the implications of such changes on operator training. During the public comment period, another nuclear industry representative indicated that for the severe accident management guidelines (SAMGs), it would be better to improve the training of the emergency response staffers vice the control room operators

RECOMMENDATION 9

Regarding Recommendation 9, which addressed the need for facility emergency plans to address prolonged SBO and multiunit events, the nuclear industry representative stated his belief that the infrastructure at and around U.S. nuclear facilities was "more mature" and "better positioned" to deal with such events. He suggested that the nuclear industry be allowed to first implement the requirements of the pending emergency plan rulemaking (RIN-3150-A110 and Regulations.gov Docket number NRC-2008-0122) before having to consider implementing the proposals related to multi-unit staffing. He noted that this recommendation was rooted in a concern about the ability to develop credible scenarios in time to support the pending rule implementation requirements.

The FEMA representative indicated that there are many efforts underway in this area and further emphasized the position that, in the event of a major natural event like that experienced at the Fukushima facility in Japan, offsite assistance will likely not be immediately forthcoming. He stressed the need for the emergency plans of U.S. nuclear facilities to prepare accordingly.

PUBLIC COMMENTS

In addition to the comments noted above, additional comments were provided by other NGO and industry representatives present at the meeting or by phone. The comments noted below are related to the recommendations that were to be discussed at this meeting. Additional public comments may be found in the meeting transcript at ML112490110.

Another NGO representative indicated that the process seemed to be driven by power production rather than safety. He observed that Recommendation 7 does not address the unintended consequences of boiling off the spent fuel pool, thus allowing the coolant to rain down on the reactor. He also noted that the regulatory mechanisms being discussed, i.e. orders, would fail to provide openness for public comment and due process for public intervention in the resolution of these issues.

M. Virgilio

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A representative of another NGO indicated that after September 11, 2001, the NRC missed the opportunity to require the removal of the spent fuel out of the pools. It was indicated that speed was warranted to take that action now.

Members of the public were in attendance. No public meeting feedback forms were received. A comment was received regarding the unfairness of allowing two representatives of the nuclear industry to support the panel discussion and only one representative from an NGO. No commitments or regulatory decisions were made by the NRC staff during the meeting. Please direct any inquiries to Ms. Eva Brown at 301-415-3152, or eva.brown@nrc.gov.

Enclosures:
List of Attendees

cc w/encl: ListServ

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PACKAGE ACCESSION NO.: ML112490382
PUBLIC MEETING TRANSCRIPT: ML112490113

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