

# POLICY ISSUE NOTATION VOTE

June 5, 2007

SECY-07-0091

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FOR: The Commissioners

FROM: Luis A. Reyes  
Executive Director for Operations

SUBJECT: INTEGRATED REGULATORY REVIEW SERVICE  
SELF-ASSESSMENT RESULTS AND RECOMMENDATION TO  
INVITE AN INTEGRATED REGULATORY REVIEW SERVICE  
MISSION TO THE UNITED STATES

PURPOSE:

To provide the Commission with the results of the staff's Integrated Regulatory Review Service (IRRS) self-assessment and seek Commission approval to coordinate with the Department of State to invite an IRRS mission focused on power reactors to the United States in 2010.

SUMMARY:

In April 2005, during the Convention on Nuclear Safety Third National Report Review Meeting, the delegation from the United States discussed the commitment of the U.S. Nuclear Regulatory Commission (NRC) to complete a regulatory self-assessment focused on power reactors and report the results at the Fourth National Report Review Meeting in April 2008.

In March 2007, a multioffice team completed the self-assessment; the team's report is attached for your information. The multioffice team identified twelve high-level findings; none of the findings represent significant issues with the NRC's regulatory structure.

CONTACT: Jacob Zimmerman, NRR  
(301) 415-1220

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In addition to completing the self-assessment, the staff has actively monitored and supported international activities to improve the IRRS process. Based on the international interactions the staff recommends that the Commission direct the staff to work with the Department of State and the International Atomic Energy Agency (IAEA) to invite an IRRS mission focused on power reactors to the United States in 2010.

#### BACKGROUND:

Since the 1990s, IAEA International Regulatory Review Team (IRRT) missions (one of the predecessors to the IRRS process) were generally requested by Member States with either relatively small nuclear programs, developing nuclear programs, or a legal and governmental environment providing an opportunity for regulatory improvement. Member States with more mature nuclear regulatory programs received few, if any, IRRT missions.

In the early 2000s, the international nuclear safety community began to focus more attention on considering safety services that could benefit all regulatory programs. Some Member States with larger, more mature regulatory programs have determined that exposing their programs to an international peer review could result in practical benefits.

Subtle international pressure built in the early 2000s for the United States to invite an IRRT mission. In preparing for the April 2005 Convention on Nuclear Safety Third National Report Review Meeting, a Contracting Party to the Convention directly asked the United States if it would invite an IRRT mission to review its regulatory programs.

In March 2005, after consulting the Commission, the staff provided the following response to the question:

The United States believes that IRRT missions provide a valuable and useful independent review of regulatory authorities, as evidenced by our participation in 11 IRRT missions. The NRC staff intends to perform an IRRT self-assessment and provide the results, along with recommendations, to the Commission within the next two years. The Commission will determine its next steps with regard to a potential IRRT mission after reviewing the results of the self-assessment.

In the U.S. presentation during the April 2005 Third National Report Review Meeting, the U.S. delegation further clarified that the IRRT self-assessment would only focus on power reactors and that the United States would report on the results at the April 2008 Fourth National Report Review Meeting.

In June 2006, after consultation with the NRC International Council, the Executive Director for Operations directed the staff to expand the breadth and depth of the self-assessment to be more consistent with the approach pursued by other developed countries to prepare for a potential IAEA-led IRRS mission. This approach would produce a more in-depth and comprehensive self assessment and lead to a more meaningful corrective action plan. Additional details regarding the revised IRRS self-assessment appear in SECY-06-0170, "Revised Approach to Complete a Reactor-Focused International Regulatory Review Team Self-Assessment," dated July 24, 2006 (ADAMS Accession No. ML061720300).

On March 22 and 23, 2007, IAEA and the Autorité de Sûreté Nucléaire (ASN) jointly hosted an IRRS lessons-learned workshop. At the workshop, regulators from France, the United Kingdom, and Romania discussed their recent IRRS experiences. Specifically:

- IAEA conducted a full-scope IRRS mission to France in November 2006. ASN representatives noted that the IRRS mission required the full involvement of the French regulatory body, and they estimated that 30 ASN members participated directly in conducting the mission. The IAEA IRRS team consisted of 16 experts, 2 observers, and 6 IAEA staff members. ASN staff estimated that the total cost was 100,000 Euro (approximately \$133,000 USD) and required 350 person-days. Senior ASN officials commented on the significant impact of the 2 week onsite part of the IRRS mission.
- IAEA conducted a reduced-scope IRRS mission to the United Kingdom in April 2006. The United Kingdom considered this international peer review to be part of its commitment to continuous improvement. United Kingdom representatives did not provide a cost estimate. However, United Kingdom representatives estimated that they expended 150 person-days to update the previous self-assessment and prepare for and conduct the mission.
- IAEA has conducted several regulatory review missions for the Romanian safety authority. The last mission proceeded under the revised IRRS review model and resulted in approximately 66 recommendations and 14 suggestions. Romanian representatives did not discuss the impact of the review in terms of cost or resources.

Representatives from France, the United Kingdom, and Romania acknowledged that the IRRS process can be resource intensive and divert resources from other priority tasks. IRRS mission findings can still be subjective in nature. However, all three country representatives concluded that the IRRS process is a useful and valuable experience.

IAEA will continue to seek improvements in the IRRS process and, as more experience is gained through IRRS missions, may change the IRRS review model. For example, the IRRS mission to France included new policy review and public involvement/communication review elements, and IAEA can still tailor the IRRS mission to meet the needs of the Member State. However, more comprehensive process improvements will take time; for the near future, the IRRS questionnaire and peer review will likely continue to emphasize compliance using IAEA safety documents. Through participation in future IRRS missions and related meetings, NRC staff will continue to influence the scope of IRRS mission. Special attention will be focused on the need for flexibility in implementing IAEA requirements, the scope of the assessments, and the definition of the core areas reviewed by IRRS missions.

IAEA has numerous missions scheduled in 2007 and 2008 and has committed to continue to improve guidance and offer training. Some Member States at the IRRS lessons-learned workshop questioned the sustainability of the IRRS program given the increased demand for IRRS missions, limited IAEA resources, and the need to improve guidance and offer training. The U.S. currently intends to support IRRS missions to Japan, Australia, Spain, and Pakistan. This will provide further opportunities to gain insights into the IRRS process and to help influence improvements to the IRRS process. IAEA may seek additional support from Member States. U.S. support and influence can help shape the focus of future IRRS reviews, and it is

important for the NRC to continue to participate in future IRRS missions and stay appropriately involved in the IRRS improvement process.

DISCUSSION:

The IRRS self-assessment team at the NRC was an independent, interoffice team. Its final report, attached for your information, contains 12 high-level recommendations and several suggestions for next steps.

The staff has reviewed the recommendations and suggestions from the IRRS self-assessment team and will take the following four actions as a result:

- (1) The Lessons Learned Oversight Board (LLOB) will review and screen the 12 high-level recommendations discussed in the report. The board will oversee any resulting actions warranting agency attention. The Office of the Executive Director for Operations (OEDO) will review those findings that pass through the LLOB screening process for appropriate follow-on action.
- (2) In addition, OEDO will task offices to review the more detailed IRRS self-assessment database and take appropriate corrective action. Offices will conduct additional self-assessment, if appropriate. The Office of Nuclear Reactor Regulation (NRR) will maintain the IRRS self-assessment database, and all affected offices will document, where appropriate, corrective actions as a result of their reviews.
- (3) NRR will continue to serve as the lead for agency reactor-related activities associated with the IRRS process. NRR will continue to monitor the results of IRRS missions and seek improvements to the IRRS process that will contribute to nuclear and radiation safety worldwide and to a meaningful and practical IRRS review process.
- (4) The staff will incorporate as appropriate the 12 high-level recommendations, or a summary of the recommendations, and a discussion of the self-assessment process into the U.S. National Report to the Convention on Nuclear Safety Fourth National Report Review Meeting. The U.S. National Report will be made available to the public.

The international safety community is still learning from experiences with implementation of the IRRS process and the staff has concluded that both the NRC staff and the international community can further this learning through an international peer review of NRC's regulatory programs.

The NRC, through its leadership, openness, and willingness to expose its programs to an international peer review, can help promote and positively influence international nuclear safety and gain insights that can improve our regulatory programs and processes. The exposure is not without risk or financial and resource costs. However, other countries have volunteered for IRRS missions, and the staff believes the benefits, both domestic and international, of an IRRS mission to the United States will justify the costs.

RECOMMENDATION:

The staff recommends that the Commission approve the following two activities:

- (1) The staff will coordinate with the Department of State and the IAEA to invite an IRRS mission focused on power reactors to the United States in CY 2010. This will allow NRC to properly budget for the impact of an IRRS mission and better manage the impact on staff workload.
- (2) Shortly before the IRRS mission to the United States, the staff will invite a small international peer review group, under our bilateral agreements, consisting of colleagues from the United Kingdom, Canada, France, and/or Spain, for example, to review our ongoing self-assessment activities and preparations for the IRRS mission.

RESOURCES:

The staff estimates that the additional effort to prepare for an IRRS mission, support a pre-IRRS mission peer review, host an IRRS mission and then a follow-up IRRS mission will cost approximately \$225,000 dollars and require approximately 2-3 full time equivalents. These resources will be addressed through the FY 2010 PBPM process.

COORDINATION:

The Office of the General Counsel reviewed this paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objection.

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Luis A. Reyes  
Executive Director  
for Operations

Enclosure:  
IRRS Self-Assessment Team Report