

## **Talking with the Public about Regulating High-level Waste Disposal: Recent Progress**

Janet P. Kotra  
Division of Waste Management  
Bret W. Leslie  
Risk Task Group  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

### **ABSTRACT**

Increasing public confidence in the U.S. Nuclear Regulatory Commission (NRC) as an effective and independent regulator is an explicit goal of the Agency (1). Consistent with long-established mechanisms and procedures, NRC provides the public access to its decision-making process. Recently, during the course of a rulemaking required by statute, NRC examined its means for inviting public access as well as the NRC staff's effectiveness in furthering public confidence in its actions as a regulator. When developing new, site-specific regulations for the proposed geologic repository at Yucca Mountain, Nevada, NRC's Division of Waste Management found it necessary to adapt and improve its efforts to inform and involve the public in NRC's decision-making process. Major changes were made to the way in which technical staff prepare for speaking to general audiences. The format used for public meetings was modified to encourage dialogue with participants. Handout and presentation materials that explain NRC's role and technical topics of concern in plain language were developed and are regularly updated. NRC successfully applied these and other institutional changes as it completed final regulations for Yucca Mountain and while developing and introducing a draft license review plan for public comment.

### **INTRODUCTION**

NRC strives to serve the public interest as a reliable, objective, open, and efficient regulator. In fulfillment of this duty, NRC has long-established mechanisms and procedures to provide the public access to its decision-making process (2). Only recently, however, has NRC examined the manner in which it invites that access, or has it questioned its effectiveness in furthering public confidence in its actions as a regulator. NRC is gaining a greater appreciation of the value of dialogue with stakeholders and is seeking to expand opportunities for public interaction and participation in its regulatory process. For meaningful interaction, the public must have access to clear and understandable information about both NRC's regulatory process and the risk-informed decisions reached through that process. In particular, when developing new, site-specific regulations for a proposed geologic repository at Yucca Mountain, Nevada (3), NRC found it needed to adapt and improve its efforts to inform and to involve the public in its decision-making process. As a result, NRC's Division of Waste Management made major changes to the way in which it prepares for interactions with the public it serves. NRC applied

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these and other institutional changes as it completed final regulations for Yucca Mountain and while developing and introducing a draft license review plan for comment (4).

## **DISCUSSION**

### **Involving the Public in the Development of New Regulations**

In 1999, NRC published its proposal for new regulations for the potential repository at Yucca Mountain, Nevada (5). These proposed regulations represented a major evolution away from deterministic criteria to a more risk-informed rulemaking framework. Staff of NRC's Division of Waste Management held public meetings in Nevada, near the site of the potential repository, as well as in Las Vegas, to obtain public comment on the proposed criteria. Scientists and engineers who had drafted the Commission's proposed regulations went to Nevada to discuss the timing and technical content of NRC's proposal, to answer questions, and to invite comment from the public. The speakers were knowledgeable about the technical bases for the proposed requirements, and experienced with presenting to scientific and technical audiences, the many difficult technical and policy issues associated with the proposal. The speakers were not prepared, however, for the range and intensity of questions and comments from the audience. Many participants had questions about issues that were not directly applicable to the proposed regulations, but which reflected deep interest and concern. Over the course of the meetings, the questions and comments from the audience clearly indicated that the speakers had not succeeded in communicating the reasons behind, and safety of, NRC's proposed regulations. It was obvious that these meetings had not contributed to public confidence in either the NRC staff or the Commission's proposal. These observations were confirmed by written comments received after the meetings. The staff's observations and the public feedback convinced NRC's Division of Waste Management of the need to improve its approach to future interactions and involvement with the public.

### **Lessons Learned**

Reflecting on this experience, the staff sought specific ways it might improve. The task was to design future interactions with the public that would better communicate NRC's primary mission of protecting public health and safety and the environment. Future interactions would also need to better reflect NRC's duty and commitment to be open and receptive to public input, and to act in such a way as to enhance public confidence in the Agency. Many commenters complained that the public comment period on the proposed regulations was too short. In response, NRC extended the allotted time, to allow for broader public involvement, and to allow enough time for the public to understand and evaluate the technical information and policy implications (6). Besides demonstrating that NRC had heard the public's concern, and had responded affirmatively to the extension request, such an extension also allowed the staff to review transcripts of the earlier meetings to catalog the comments and questions raised at the meeting, and subsequently, to provide personalized answers to certain specific questions raised, but not answered adequately, at these meetings.

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This experience showed that although scientists and engineers may be effective communicators among their peers, they are accustomed to interacting with other technically trained specialists who insist on precise and complex explanations of technical and policy issues. They are not, generally speaking, familiar with risk communication nor are they trained public affairs specialists. As a result, such professionals often use technical jargon and acronyms in their presentations, rather than the more direct, plain language explanations the public seeks and has a right to expect. To address these communication challenges, the Division of Waste Management obtained expert training in risk communication, and continues to increase the number of staff receiving training before conducting public meetings. All presentations are now reviewed for clarity and plain language. Working with a trained facilitator, the staff restructured the format used for public meetings. For instance, formal presentations, if needed at all, are much shorter, and are punctuated with multiple opportunities for questions and dialogue. Other formats, such as public round-table discussions, poster sessions, open houses, and displays at technical conferences, have also been used to advantage. To coordinate and carry out this more ambitious approach to public interaction, we established a public outreach team of technical and support professionals from a variety of disciplines and offices within NRC, including members from NRC's Spent Fuel Project Office, NRC's Office of Public Affairs, and NRC's contractors at the Center for Nuclear Waste Regulatory Analyses. Among its many responsibilities, this team developed a Communications Plan for NRC's high-level waste (HLW) regulatory program.

### **The HLW Communications Plan**

NRC's HLW public outreach team was among the first organizational units within NRC to draft a formal Communications Plan. This plan explains the goals and messages of NRC's communications activities. For example, one goal is to clarify NRC's independent role and its authority and processes for assuring public health and safety of spent nuclear fuel and high-level wastes while they are stored, transported, and disposed of. In addition, the plan stresses the value of maintaining positive relationships with communities and actively engaging members of the public by inviting their input. The technical staff welcomes public comments to develop and improve NRC products, and tries to provide specific feedback on how such input has been considered. To establish a basis for more positive relationships with the full range of interested stakeholders, not just those with a technical background, NRC seeks to improve the public's understanding of the technical issues that concern them. Likewise, NRC tries to improve its own understanding of the broader public concerns associated with these issues. To enable a more meaningful dialogue, the team expressly defined its communication objective as one of explanation, not persuasion. As such, success is defined more in terms of increasing public understanding of, and confidence in NRC's ability to serve as an independent regulator, rather than persuading the public to agree more with NRC's programs or regulatory decisions.

## **Tools and techniques**

To implement this plan, the outreach team is developing communication tools that aid the technical staff in conveying key policy and technical messages. For example, the team has reviewed transcripts of past public meetings, and discussed answers to possible questions. Whenever the team expects that issues beyond the scope of a scheduled meeting, or beyond the Division's regulatory responsibility within NRC, will arise, the team invites individuals, from other offices or divisions, who are knowledgeable about such potential issues. In addition, team members have provided comparable support to public meetings conducted by other divisions and offices, thereby expanding the knowledge base of the team members, and bringing greater consistency in NRC's messages to the public arena.

Also, team members are working to identify key scientific and regulatory concepts that need to be "translated" from technical language to plain language. The team develops new handouts, displays, and presentation materials to help NRC's stakeholders better understand NRC's policies, and technical bases for its regulatory decisions. As this team continues to work together, it expects to identify more and better ways to support the public communication goals of NRC's HLW program.

## **RESULTS**

This new approach has been received well at close to twenty public meetings over the past three years. Management commitment and intensive staff preparation, training and rehearsal by all speakers, and actively anticipating questions and discussing appropriate answers in advance, have all contributed to more constructive interactions with the public in Nevada. Follow-up meetings on proposed NRC regulations, as well as information workshops, meetings, and displays on NRC's regulatory process, hearing process, and draft licensing guide, have generated many high-quality, constructive comments from a wide array of stakeholders. NRC has received positive feedback from meeting attendees and local government officials, and has received invitations to conduct additional meetings, from other communities within Nevada. These are positive signs that NRC's efforts to improve its communications with the public are on the right track and are making progress.

## **CONCLUSION**

The new approach to public interaction that NRC is pursuing in its HLW program amounts to many small, common-sense improvements. Taken as a whole, however, these improvements reflect a changing vision and increased commitment to discharge NRC's HLW responsibilities through a more inclusive regulatory process. By engaging the public earlier, listening to issues and concerns, and providing clear and honest responses, we are earnestly working to build public confidence and trust – trust that can enhance our ability to protect the public safety and the environment.

**NOTE:** The views expressed herein are those of the author and do not reflect any judgment or determination by NRC on potential approval or denial of a license application for a geologic repository at Yucca Mountain.

## REFERENCES

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