

May 24, 2006

MEMORANDUM TO: Chairman Diaz
Commissioner McGaffigan
Commissioner Merrifield
Commissioner Jaczko
Commissioner Lyons

FROM: Luis A. Reyes **/RA/**
Executive Director for Operations

SUBJECT: STATUS UPDATE ON FEASIBILITY OF DEVELOPING FUEL
FACILITY PERFORMANCE INDICATORS

In Staff Requirements Memorandum SECY-05-0070, issued June 30, 2005, the Commission directed the staff to evaluate the feasibility of developing objective, transparent, risk-informed, and performance-based facility-specific performance indicators (PIs) that could be used in the U.S. Nuclear Regulatory Commission's (NRC's) licensing and oversight process for fuel facilities. In the last Office of Nuclear Material Safety and Safeguards (NMSS) Materials Program Commission Briefing held on February 8, 2006, the staff had briefly mentioned the overall effort in performance monitoring, which includes the development of PIs. The purpose of this memorandum is to provide the Commission with a more complete update on the staff's efforts in this area.

If instituted, the proposed PI program will be consistent with the philosophy of risk-informed, performance-based regulation and will be created in a manner that complements 10 CFR Part 70 fuel cycle regulation and inspection. The overall staff goal will be to develop a PI program that improves the effectiveness and efficiency of the oversight process. The focus of the PI program will be on safety indicators rather than security indicators. A desired outcome of this program will be to provide fuel facility licensees and NRC with a further means to more fully implement a performance-based, risk-informed safety program. The staff would expect to use insights from the PI program, the inspection program, licensee performance reviews, and the integrated safety analyses, to enhance the overall oversight process.

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The NRC staff discussed the proposed PI program at the quarterly NMSS/Nuclear Energy Institute (NEI) meeting on January 19, 2006. In early February 2006, by letter, the NRC staff requested that the 10 fuel facility licensees, certificatees, and applicants whose facilities handle significant quantities of source and special nuclear material, respond to the following two questions:

1. What unique aspects of your facility do you believe should be taken into consideration as we propose facility-specific PIs?
2. What suggestions do you have for potential PIs and/or PI thresholds that might be applied specifically to your facility?

The staff received the last response on April 27, 2006. Concerning the first question, most of the 10 licensees, certificatees, and applicants identified certain unique aspects of their facilities, confirming the diverse nature of operations conducted at fuel facilities. Concerning the second question, most of the aforementioned respondents did not suggest any facility-specific potential PIs and/or PI thresholds. Several suggested a workshop, coordinated through NEI, to discuss the PI program. However, because of the diverse nature of fuel facilities, the staff believes that initially it would be more effective and efficient for it to interact individually with each of the 10 licensees, certificatees, and applicants, concerning facility-specific potential PIs and/or PI thresholds. Although the staff's February 2006 letter and questions focused on facility-specific PIs, and did not mention comparison among facilities, several responses stated that a common set of PIs to compare the fuel facilities would be difficult to generate because of the uniqueness of the fuel facilities. A few believed that the costs associated with the program would outweigh the benefits. Most indicated that they would be willing to work with NRC and the rest of the industry to discuss potential PIs and to make NRC's oversight program more performance based and risk-informed.

While the 10 fuel facility licensees, certificatees, and applicants were preparing their responses to the two questions listed above, the Division of Fuel Cycle Safety and Safeguards in NMSS, in collaboration with the Division of Fuel Facility Inspection of Region II, drafted the PI framework, containing potential PIs that may be applicable to fuel facilities and may lend themselves to facility-specific application. In drafting the framework and the PIs, the staff considered what was done for nuclear power plants in the Office of Nuclear Reactor Regulation and internationally. The staff also ensured that the PIs addressed the safety-significant aspects associated with fuel facilities. The staff did not identify any significant efforts that had been accomplished, in the international arena, concerning fuel facility PIs. However, the staff did note that the International Atomic Energy Agency is in the process of initiating an effort to generate fuel facility PIs.

Between May and September 2006, the staff intends to engage each fuel facility licensee, certificatee, and applicant, by making site visits, to obtain facility-specific feedback on the potential PIs, and to discuss how the potential PIs would apply to the specific facility being visited. The discussion would include the potential PIs and any facility-specific thresholds that may be applicable to the PIs. After assessing the information received during the various site

visits, the staff will further engage the fuel facility industry so as to formulate its recommendation, in a Commission Memorandum, on the feasibility of developing fuel facility PIs. The staff anticipates issuing the Commission Memorandum by December 2006.

The staff is also preparing a communication plan that is scheduled to be issued in June 2006.

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