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## **NFS reports on progress in changing safety culture**

Nuclear Fuel Services needs to wipe out any tolerance for allowing degraded conditions at the company's fuel cycle facility in Erwin, Tennessee, an independent, third party found in conducting a safety culture assessment.

NFS executives last week shared that finding with the NRC staff and provided a preview of other results of the assessment, which wrapped up in February. A full report will be submitted to the NRC in mid-May.

The assessment was undertaken to fulfill a requirement in a February 2007 confirmatory order from the NRC, which identified NFS' weak safety culture as contributing to a "recurrence" of violations at the facility. The confirmatory order was issued 11 months after a near-criticality event at NFS's Blended Low-Enriched Uranium Preparation Facility and following a five-month strike over the union's objections to the elimination of pension plans for new employees and changes to the retirement and health insurance plans.

At the April 22 meeting at NRC headquarters, Tim Lindstrom, NFS' executive vice president and general manager, said the safety culture board of advisors, known as Scuba, determined that over time, NFS developed a "process for workarounds," which became "proceduralized" and created a distraction for the workforce.

In the past, Lindstrom acknowledged, the company did not emphasize decision-making based on safety as the top priority. It was not unusual for decisions to be based on production requirements, he said.

The Scuba stressed the need for NFS to continually reinforce its campaign – "Safety Strong" – and better communicate that safety should underpin operational decisions.

Management also needs to encourage workers to maintain a "questioning attitude" and follow the rules to serve as a model for accountability of actions, he said.

The Scuba identified human performance challenges, including problems with procedural compliance and a lack of a comprehensive human performance program, and found improvements were needed in emphasizing ownership and accountability, Lindstrom said. For example, the assessment said that "single points of accountability" were not identified for projects and that the company needed to upgrade and enforce the personnel performance evaluation process.

Another theme that the assessment emphasized was a gap in the NFS safety culture compared with industry best practices, Lindstrom said. He said the company has established some initiatives to address the assessment's findings, such as tackling benchmarking by joining the Institute of Nuclear Power Operations as a supplier participant and the Energy Facilities Contractor Operations Group, a group of DOE contractors and power and fuel cycle facilities. He said INPO's assistance has been particularly helpful. NFS now has access to INPO's operating experience database and best practices guidance and information. NFS also has sent managers to INPO courses for training, he said.

INPO is "very good at connecting the dots," said John Nagy, NFS' vice president and chief nuclear safety officer.

Nagy said the organization has provided help to “narrow the gap between us and power [reactor] facilities.” The networking that INPO provides has been as important as the access to its documents, he said.

NFS disagreed with one recommendation from the assessment, Lindstrom said. The Scuba suggested that the corrective actions program could be improved by limiting the scope to safety-related issues. But NFS management believes restricting the scope would confuse workers, Lindstrom said, adding that the company wants to ensure that employees feel free to raise any safety or non-safety-related issue. NFS’ past problems has drawn congressional attention, and two staffers from the House Energy and Commerce Committee attended the meeting, along with officials from DOE’s naval reactors program and two reporters. Staffers from NRC Region II participated through videoconferencing and at headquarters, Martin Virgilio, the deputy executive director for Materials, Waste, Research, State, Tribal, and Compliance Programs, attended to the NFS briefing. Richard Miller, an investigator on the Energy and Commerce Subcommittee on Oversight and Investigations, said at the meeting that he “sensed hesitancy” from NFS management to share the Scuba findings with the workforce and whether it would do so.

Lindstrom said the company’s culture in the past has “not been one of sharing” and indicated that it might have slipped into that mindset with the report. But he said that the management would consider making the document available. Marie Moore, NFS vice president of safety and regulation, said management met with union leaders to discuss the assessment results but has not yet made the findings available to all employees.

NFS officials said it has not yet hired a human performance manager because it has had trouble attracting a qualified individual to the position. They said the company is now considering hiring someone who does not have all the desired skills and send the individual to INPO to get training or to gain experience through an employee loan program, Lindstrom said. The company said it has established 14 new positions, excluding hourly workers, to be filled in 2008. NFS officials said they were going to “more than double” the configuration management specialists on staff, but later clarified that they planned to boost the specialists from four to eight staffers when asked by NRC staff for the actual number of hires.

Configuration management was a major area cited by the NRC in need of improvement in the 2007 confirmatory order and a “big piece” of the reforms under way at NFS, Lindstrom said. He said the company is beginning to enter data into a new electronic system it has purchased, such as information on pumps and valves. Configuration management is the way the company manages and controls changes to its equipment and processing operations. NRC staff told the commissioners in a recent report summarizing the annual performance of materials licensees that it was continuing to be closely followed by management. “NFS’ current performance, as indicated by the number of violations identified since mid-2007, has not significantly improved since the last licensee performance review (LPR),” the staff said in its paper, Secy 08-48, which was released April 22. “The violations continue to indicate that NFS needs to improve its management oversight to ensure adherence

to operational, radiological protection, and engineering procedures.”

Most recently, NRC cited NFS for two violations from a safety inspection at the Erwin facility from March 31 through April 4. In an April 24 letter, NRC said the inspection focused on risk-significant fissile material processing activities at the blended low-enriched uranium processing facility, or PBF, the fuel manufacturing facility, the waste water treatment facility and two production lines.

One violation stemmed from NFS' failure to demonstrate the adequacy of subcritical margin under normal conditions. NRC classified this violation, which was associated with activities at the BPF centrifuge bowl cleaning station, as Severity Level IV, meaning it was more than minor but the lowest of four severity categories.

The other violation, for NFS' failure to survey contaminated cartridge filters before packing it for disposal, was determined to be a non-cited violation, or NCV. It was self identified by NFS. An NCV, also of very low safety significance, does not require a written response from the licensee.

—*Jenny Weil, Washington*