

**Questions for the Record
NRC Public Meeting (Cat I)
Erwin Town Hall, Erwin, TN
June 24, 2010, 5p.m.**

- 1. What did NES do with the nitric acid cooked HEU material that remained in the cleanout bowl when the process was shut down? Where is it now? (i.e. If the system was shut down there should have been a special procedure for removal and disposition of that material). In that regard, how does the Special Material Control System work?**

Response: Material was removed from system and placed in favorable geometry containers using an approved procedure. Containers were then moved to appropriate storage vaults. Material will remain in vaults until a plan is developed, reviewed and approved for disposal/processing.

The primary objective of a material control and accounting (MC&A) program is to ensure continuous knowledge of and control over the locations and quantities of nuclear materials with the goal of detecting, deterring, or preventing any potential material loss, theft, or diversion.

Deterrence, through demonstrated accounting for and control of nuclear material (e.g., accurate inventory or records);

Detection, through measures that cover feasible scenarios (e.g., access control or material surveillance program);

Prevention, through continuous knowledge of nuclear material locations and characteristics (e.g., item monitoring program or control of material receipts and shipments); and

Response, through prompt identification, investigation, and resolution of anomalies (unusual events).

- 2. What is the status of the Change Process Procedure? Why was this Change Process Procedure abuse never found during the previous decades of NRC Inspections?**

Response: NFS procedure NFS-TS-009, "Configuration Management of Process Change," is currently an active procedure and the current revision is 2 which was made effective on February, 23, 2010.

The NRC has documented previous deficiencies regarding NFS' implementation of it's

change control process. On March 7, 2006 a spill of HEU material occurred in the BPF solvent extraction area. This spill was attributed to a lack of configuration control of plant systems. As a result of this event, the NRC issued a confirmatory action letter (CAL) on March 18 that required NFS to maintain the BPF facility in a shutdown condition until various corrective actions were implemented. Note that the remaining portions of the facility remained operational (i.e. Naval fuel process lines). BPF operations resumed on October 23, 2006 following the completion of NRC restart inspections. Following the bowl cleaning station event on Oct 13 2009, the NRC issued a second confirmatory action letter on January 7, 2010 which required the facility to be shut down. This CAL addressed systemic safety culture weaknesses that were prevalent despite the fact safety culture should have been improved as a result of the actions from a previous order. This second CAL went beyond the first CAL from 2006 in that the ENTIRE facility, including the Naval Fuel Process, BPF as well as the newly installed commercial development line were shut down. This CAL also required NFS to notify the NRC when the various restart actions were complete such that the NRC could perform inspections prior to restart. These restart inspections would give the NRC the confidence that NFS could run the facility consistent with the public health and safety.

The NRC has taken a measured approach towards NFS' performance. Continued performance degradation over the past few years has been met with more rigorous regulatory oversight as well as an increasing level of enforcement action.

3. **Neither the May 28, 2010 NRC Inspection Report, nor the June 2, NRC Restart Readiness Assessment Team Report No. 70-143/2010-005 are on the dedicated NFS Site on the NRC website. Why not? Request they be added.**

Response: We have reviewed the NRC public website for NFS documents and have identified missing documents and we have posted missing reports, event notices, and added a new category for Other Correspondence. If for any reason you believe something is missing, please contact us so that we may get it corrected. If anything is missing on the dedicated NFS site can also be found in ADAMS.

4. **Our children and grandchildren swim, play, and fish in the Nolichucky River and Martin Creek. Can you assure us that the River and Creeks do not contain high-enriched uranium from NFS?**

Response: See response to item 5.

5. **Does NFS discharge high-enriched uranium into the Nolichucky River and/or Martin Creek? If yes, are HEU discharges permitted through NFS's NPDES permit or through NFS's Special Nuclear Materials license with the NRC? If yes, how much HEU is NFS allowed to discharge and how does this jibe with national security considerations?**

Response: All NRC licensees are authorized to discharge water containing trace amounts of radioactive material if the concentrations are below specified limits. These limits are specified in Appendix B of 10 CFR Part 20. NFS is authorized to release water containing high enriched uranium (mostly uranium-235) if the concentration is less than 3×10^{-7} uCi/ml. This concentration is so small that it poses no health concerns. In addition, it poses no security concerns.

6. **According to the NRC June 2, 2010 Restart Readiness Report, the most recent document available to the public, the NFS independent review team lacked depth. "In many cases, the assessment consisted of reviewing the supporting documentation supplied by NFS and did not include independent sampling." So, does this not render the actions of the independent review team invalid? Therefore, with the NFS history of falsification of documents, how do we ever know anything is correct, especially when it comes to environmental sampling?**

Response: To be provided later

7. **Why do NFS and the NRC continue to refer to the October 13, 2009 accident using the term "nitrous oxide" instead of nitrogen compound gas?**

Response: Following the Oct 13, 2009 bowl cleaning station event, NO_x (pronounced "knox" as in Knoxville, TN) gases were released into building 333. Personnel immediately evacuated and the NO_x gases were subsequently removed via the building scrubber. NO_x roughly stands for nitrogen compound gases and typically represents NO (nitrogen oxide) or NO₂ (nitrogen dioxide). The x represents a variable and signifies that there can be 1 or 2 oxygen (O) atoms bonded with the nitrogen (N) atom. NFS originally (incorrectly) reported to the NRC in an event report that the gases that evolved from the bowl cleaning station were nitrous oxide which represents N₂O. NFS should have reported that NO_x was liberated. Following the discovery of this error, the event report was corrected. This error was made once and corrected in an update to the original event report. To the knowledge of the NRC, this error is not being perpetuated. However, some media sources may have made subsequent press releases using the incorrect terminology from the original event report.

8. **"Modifications had been completed to the point where post-modifications testing was the next stage in the process. However, from a review of the work request packages that were posted at the job locations, the team noted that none of the modifications selected had been inspected by the process engineers responsible for the modifications." Isn't it against the law to lie to the NRC? (Yet, it happens over and over).**

Response: This was considered a minor violation of NFS' own procedures and was noted

by an NRC inspector. Issue was brought up to NFS management and corrected. This was a case of NFS deviating from their process. Although NRC inspectors discovered this issue, no indications of data falsification were noted.

9. **Calibration. One of the issues associated with Work Request #M141767 included the calibration of important plant equipment in the Navy fuel line, which should have been identified as restart items, but were not. Is this being tracked as an URI or IF!? (Submitted for the record, attached is one of our documents that recap the known calibration issues from 2000-2008). Updating in process.**

Response: This question stems from Restart Readiness Assessment Team (RRAT) #1 which examined the restart of the Navy fuel process line. The following paragraph comes directly from the report and addresses the above calibration concern:

“Based on the team’s observations, the licensee initiated actions to address the aforementioned weaknesses in their initial evaluation of open work items. These actions included the development of specific restart evaluation criterion for reviewing all open work request items, with the review conducted by specific work request identification number vice a general topic item description. The subsequent review using the developed evaluation criteria would document the decision-making process and be maintained in a consolidated evaluation database up to and including restart of the Navy Fuel line to ensure new work items would be properly evaluated and documented. The licensee indicated that this evaluation methodology would be used for the restart of the remaining NFS product lines. The team concluded that the actions proposed by the licensee were comprehensive and adequately addressed the concerns.”

Based on the above the NRC’s concerns regarding calibration of equipment was corrected prior to restart of the line

10. **Issues with Configuration Management have been an ongoing at NFS for decades. Attached a 15-page list of just a few from April 1996 - July 2009. (Submitted for the record)**

Response: To be provided later

11. **Are there any specifications that qualifications for the NRC personnel for the job they are in? If so, who determines those qualifications?**

Response: Formal qualification programs for licensing and inspection staff are contained in Inspection Manual Chapters 1246 and 1247. These programs are reviewed and approved by NRC management.

12. The heat wave that northeast Tennessee has been under for the past couple of weeks is expected to continue. Can the NRC ensure the public that the canisters of UF6 that NFS is storing on site are not going to be affected by heat indexes of over 100 degrees?

Response: The UF6 cylinders are stored inside, in storage areas that are air-conditioned. If the Erwin area were to experience a power outage for an extended period of time, NFS would take appropriate measures to ensure that weather conditions are evaluated to determine what actions, if any, are warranted.

13. Regulatory failures at the Mine Safety and Health Administration and at the Minerals Management Service have cost dozens of workers their lives and, has cost our country the use of a good portion of the Gulf of Mexico for food production, recreation, or wildlife habitat. What distinguishes the NRC from MSHA & MMS, especially the latter since NRC also collects fees from the companies they "regulate" (like MMS) and former-NRC Commissioner Merrifield "cast votes on matters regarding companies he had contacted about job prospects". (Washington Post, 29Oct09) And, we see the revolving door whip around from the NRC to industry right here in Erwin. How can NRC assure the public that it is protecting the worker & public health and safety and not your own job prospects like your regulatory brothers and sisters in MSHA & MMS?

Response: To be provided later

14. The June 2 NRC Restart Readiness Report stated that "Licensee had an event on February 19, 2010, which caused an inadvertent criticality alarm and evacuation." (PIRCS #P23389). Was this reported to the NRC as an event? If so, why is it not listed on the Event Notifications?

Response: This was not reported to the NRC as an event. This issue dealt with a maintenance error that caused a loss of power to the criticality alarm system (CAS). The system then alarmed as designed and expected. Personnel promptly evacuated the facility as required. This was essentially a "false" alarm caused by personnel error. 10CFR70 (part 70) requires the licensee to make event notifications to the NRC if certain conditions are met. For example, if a maintenance error caused the CAS to be rendered inoperable during a time frame that material is being processed, this would require an event notification. Note that there are numerous event notification requirements that can be found in 10 CFR Part 70.

15. Why is there a 5-day lag time between an NFS reported event and the date it shows up on the Event Notification List?

Response: First, all NRC licensed facilities that submit documents as required by 10CFR are under the same regulations with respect to time frames for submittal. When documents

are received from licensees (including event reports), they are reviewed for sensitive information before they are released to the public. Our policy on release of documents to the public is provided in Management Directive 3.4. The policy states that externally generated documents received by NRC are to be released to the public by the 6th working day after the document is added to the ADAMS Main Library. This time period allows 5 working days for the staff to review a document received by NRC to ensure no proprietary, privacy, or other sensitive information is made public.

Event reports from fuel facilities are forwarded to the licensing project manager for the facility to conduct the sensitive information review. Guidance on sensitive information is provided in Regulatory Issue Summary 2005-31 (ML053480073).