



March 27, 2009

Sandra Gavutis  
Executive Director  
C-10 Research and Education Foundation  
44 Merrimac Street  
Newburyport, MA 01950

SUBJECT: NRC RESPONSE TO CONCERNS RAISED IN A DECEMBER 22, 2008,  
LETTER CONTESTING A NON-CITED VIOLATION: "FAILURE TO CONDUCT  
AN ADEQUATE DRY RUN FOR AN INDEPENDENT SPENT FUEL STORAGE  
CASK LOADING"

Dear Ms. Gavutis:

This letter is in reference to your letter dated December 22, 2008, in which you requested that the NRC reconsider its characterization of a Severity Level IV Non-Cited Violation described in NRC Inspection Report 05000443/2008006 and 07200063/2008001, dated December 3, 2008. On January 8, 2009, NRC staff contacted Ms. Debbie Grinnell of your organization by telephone and informed her that members of the public can request enforcement action related to licensed activities by filing a Title 10 of the Code of Federal Regulations (10 CFR) Part 2.206 petition. In addition, by letter dated January 23, 2009, NRC staff informed you that if you want the NRC to consider your December 22, 2008, letter a petition under 10 CFR Part 2.206, you should so inform us. The letter also stated that if you did not want your letter to be considered a 10 CFR 2.206 petition, the NRC staff would conduct a review of your concerns and inform you of the results. We also requested that you provide any specific additional details that you may have relative to the worker exposure, welder qualifications, or procedural non-compliances, and any information that you have that is inconsistent with NRC's characterization of the facts in NRC Inspection Report No. 07200063/2008001.

On March 17, 2009, we again contacted Ms. Grinnell by telephone. Ms Grinnell indicated that your organization does not want to pursue the process described in 10 CFR 2.206. Although she did not provide any additional information, she did indicate that your organization would appreciate being informed of the NRC's review and evaluation of the concerns you raised. This letter informs you of the results of our review.

From July 7 through September 4, 2008, NRC inspectors conducted an onsite review of the Seabrook Station's pre-operational demonstration of the loading of spent fuel into onsite, dry cask storage (the dry run). The inspectors also conducted reviews of licensee documents through October 22, 2008. The results of the inspectors' reviews and observations are described in the referenced inspection report. The NRC staff determined that a violation of NRC requirements occurred. The violation involved a failure to perform a fully effective preoperational demonstration of the welding of the inner top cover of the dry shielded canister as required by Condition 8.b of the Certificate of Compliance 72-1030, dated January 10, 2007, for the NUHOMS-HD cask system for storage of irradiated fuel. Specifically, the licensee used a shield bell to reduce radiation exposure to personnel performing the evolution, but did not consider that the bell would interfere with the automatic welding machine.

In evaluating the significance of the violation, the NRC staff utilized the guidance set forth in the NRC Enforcement Policy (policy). The policy is publicly available and is located on the NRC website at: <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. In accordance with Section IV of the policy, the staff concluded that the violation should be classified at Severity Level IV, because it was not considered significant based on risk, but was considered more than minor. In arriving at this conclusion, the staff considered: 1) actual safety consequences; 2) potential safety consequences; 3) potential for impacting the NRC's ability to perform its regulatory function; and 4) any willful aspects of the violation.

Since the violation was classified at Severity Level IV, the staff determined that consistent with Section VI.A.1 of the policy, the violation should be dispositioned as a Non-Cited Violation (NCV) because: 1) the licensee restored compliance within a reasonable time period after the violation was identified; 2) the licensee placed the violation into its corrective action program; 3) the violation was not repetitive and was not identified as a result of ineffective corrective action; and 4) the violation was not willful. The NRC followed its open and well-defined process for dispositioning the violation. Dispositioning violations in this manner does not reduce the NRC's emphasis on compliance with requirements or the importance of maintaining safety. The licensee took immediate actions to correct the violation and prevent this type of violation in the future, and a public record of the violation was made in the inspection report.

Your letter disagrees with the NRC determination that the violation was not willful. You indicated that the violation was "deliberate" and should be deemed willful. A violation is considered deliberate if at the time of the violation, the individual knows that his/her conduct violates or is causing a violation of an NRC requirement. In this case, the introduction of the shield bell, which was not present during the pre-operational welding dry run conducted in Pelham, AL, in December 2007, did interfere with the operation of the automatic welding machine. However, the use of the shield bell was viewed by the inspectors as an attempt by the licensee to further reduce radiation exposures to personnel performing the work, and the licensee's failure to fully consider that the shield bell would interfere with the automatic welding system was considered an oversight and not due to a deliberate or willful attempt to violate NRC requirements.

The introduction of the shield bell resulted in unexpected difficulties and increased the time and radiation exposure required to complete the processing of the first canister. However, no worker received a radiation dose that exceeded any licensee administrative limit or the occupational dose limits in 10 CFR 20.1201. Further, after considering lessons learned from this violation, the total dose for the loading campaign was less than the predicted dose for the project.

The NRC notes that the welder performing the closure of the first canister was an American Society of Mechanical Engineers (ASME) code qualified welder, but had not participated in the pre-operational welding dry run conducted in December 2007. The welder had performed welding on similar canister mock-ups prior to arriving at the Seabrook facility. The NRC does not require all personnel involved in fuel transfer activities to participate in the NRC dry run demonstration. The contractor assisting the welder, although highly experienced with expertise in operation of the automatic welding system, was not an ASME code qualified welder. The NRC inspectors challenged the acceptability of using a non-ASME code qualified welder to assist the ASME code qualified welder and documented an unresolved item (URI 07200063/2008001-001) in the inspection report. This unresolved item was reviewed and closed in Seabrook NRC Inspection Report No. 05000443/2008005, dated January 30, 2009. The ASME Code response, dated November 26, 2008, confirmed that a person making adjustments to welding equipment settings while under the supervision and control of a qualified welder is not required by

QW-301.2 of ASME Section IX to be a qualified welder or welding operator. The ASME Code reply confirmed that the ASME welder qualification rules had been met for the dry storage canister production welding conditions.

The NRC also notes that prior to beginning work on every shift, the licensee and the contractor held a formal briefing with all personnel involved with the dry cask activities to discuss: the upcoming activities, what contingencies were in place, which individuals were responsible to identify safety issues, and to remind all personnel that they had the responsibility to stop the job if an unsafe condition was observed. The inspectors considered this type of briefing adequate for the required work.

At the conclusion of the welding on the first canister, the welds were examined for indications and flaws by visual examination, by use of a welding industry standard dye penetrant non-destructive examination, and by helium leak-testing. No flaws were identified in the final weld and the examinations showed that the cask was properly sealed.

In summary, NRC followed its enforcement policy in classifying the violation at Severity Level IV, and dispositioning this Severity Level IV violation as a Severity Level IV Non-Cited Violation. The NRC found no evidence that the violation was willful.

I trust that we have been responsive to the concerns that you raised. If you have any questions regarding this letter, please contact me at (610) 337-5083.

Sincerely,

*/RA/*

Randolph C. Ragland Jr., Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

cc:

Kathryn Douth, Assistant Director, State of New Hampshire  
John Giarrusso, State Liaison Officer, Commonwealth of Massachusetts  
Samuel Collins, Regional Administrator, Region I  
Cynthia Carpenter, Director, Office of Enforcement  
William Raymond, Senior Resident Inspector, Seabrook Station

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- John Giarrusso, State Liaison Officer, Commonwealth of Massachusetts
- Samuel Collins, Regional Administrator, Region I
- Cynthia Carpenter, Director, Office of Enforcement
- William Raymond, Senior Resident Inspector, Seabrook Station

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