

December 17, 2013

Mr. Patrick R. Simpson,  
Manager-Licensing  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM EXEMPTION REQUEST (TAC NO. L24749)

Dear Mr. Simpson:

As discussed during our telephone call on December 11, 2013, the NRC has concluded that issuance of the requested exemption to Exelon Generation Company, LLC (EGC) regarding Transnuclear, Inc. (TN) TN-68 casks loaded with fuel bundles with incorrect cooling times at the Peach Bottom Power Station (PBAPS), Units 2 and 3 Independent Spent Fuel Storage Installation (ISFSI) in June and July 2001 is not appropriate at this time.

By letter dated May 23, 2013, EGC submitted an exemption request for the four PBAPS Unit 3 fuel assemblies that were loaded into four TN - 68 casks (i.e., one assembly per cask) with cooling times less than the minimum cooling time specified in the Certificate of Compliance (CoC) No. 1027, Amendment No. 0, Appendix A, Technical Specification (TS) 2.1.1, Table 2.1.1-1, "Minimum Acceptable Cooling Time as a Function of Max. Burnup and Min. Initial Enrichment". The non-compliance was identified during a January 2013 internal review of historical ISFSI fuel characterization for PBAPS.

Specifically, the four spent fuel assemblies had been cooled for approximately 9.8 years instead of the required 10 years that is specified in TS Table 2.1.1-1. Upon discovery of the TS non-compliance, EGC verified that the actual heat load of each fuel bundle, at the time of loading, was less than the limit specified in TS 2.1.1.E.ii. The decay heat of the assemblies has continued to decrease since their initial loading in June and July 2001. As of September 14, 2001, the four assemblies fully complied with the TS 2.2.1, Table 2.1.1-1 cooling time requirement.

As required by TS 2.2.2, EGC notified the NRC Operations Center within 24 hours of discovery of the TS non-compliance (ENS notification 48698). Similarly, as required by TS 2.2.3, EGC provided a 30-day special report to the NRC on February 22, 2013. This special report described the cause of the TS non-compliance and the actions taken to restore compliance and prevent recurrence. Specifically, the four spent fuel assemblies were non-compliant, at the time of loading, for durations ranging from 58 to 86 days. Subsequently, EGC requested NRC approval of a one-time exemption for the PBAPS, Units 2 and 3 ISFSI from the requirements of 10 CFR 72.212, due to a non-compliance with the terms and conditions of CoC No. 1027. Section 72.212 requires, among other things, compliance with all of the terms and conditions of an NRC approved cask by a general Part 72 licensee.

The NRC staff has reviewed your exemption request and concluded that the exemption request is not appropriate at this time. As of September 14, 2001, all four spent nuclear fuel assemblies were within the terms and conditions of CoC No. 1027 with respect to fuel age due to the subsequent aging of the fuel after their loading. EGC's erroneous loading of the subject assemblies was a violation of the terms of the CoC, but is not a continuing one. NRC completed an integrated inspection and documented the inspection results in the Peach Bottom Resident Inspector Report 2013003 (ML13213A239). The report concluded the loading of the four fuel assemblies did not impact the shielding, confinement, and thermal design functions of the loaded TN-68 casks and there was no safety consequences associated with the event. The NRC dispositioned the event as a minor violation of the TS.

If you have any questions, please contact me at (301) 287-9202.

Sincerely,

**/RA/**

John-Chau Nguyen, Sr. Project Manager  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 72-29, 50-277, 50-278, 72-1027  
TAC No.: L24749

cc: See attached list

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Sincerely,

/RA/

John-Chau Nguyen, Sr. Project Manager  
Licensing Branch  
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## LETTER FOR PEACH BOTTOM EXEMPTION

Mr. Donis Shaw  
Transnuclear, Inc.  
7135 Minstrel Way  
Columbia, MD 21045

Mr. John Schrage  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555