



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 14, 2015

Vice President, Operations  
Entergy Nuclear Operations, Inc.  
Indian Point Energy Center  
450 Broadway, GSB  
P.O. Box 249  
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - REQUEST FOR  
ADDITIONAL INFORMATION REGARDING CHANGE TO REACTOR VESSEL  
CAPSULE WITHDRAWAL SCHEDULE (TAC NO. MF5148)

Dear Sir or Madam:

By letter dated November 5, 2014, Entergy Nuclear Operations, Inc., the licensee, submitted a proposed revision to the reactor vessel surveillance capsule withdrawal schedule pursuant to Title 10 of the *Code of Federal Regulations* Part 50, Appendix H, which requires that withdrawal schedules must be approved by the Nuclear Regulatory Commission (NRC).

The NRC staff is reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). Based on our discussions we understand that a response to the RAI will be provided within 30 days of the date of this letter.

Please contact me at (301) 415-1364 if you have any questions on this issue.

Sincerely,

A handwritten signature in black ink that reads "Douglas V. Pickett".

Douglas V. Pickett, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION  
PROPOSED REVISION TO REACTOR VESSEL  
SURVEILLANCE CAPSULE WITHDRAWAL SCHEDULE  
ENTERGY NUCLEAR OPERATIONS, INC  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3  
DOCKET NO. 50-286

By letter dated November 5, 2014 (Accession No. ML14323A729), Entergy Nuclear Operations, Inc. (Entergy, the licensee) requested approval from the Nuclear Regulatory Commission (NRC) regarding a revision to the reactor vessel surveillance capsule withdrawal schedule pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix H, Section III.B.3.

BACKGROUND

Section 10 CFR Part 50, Appendix H, states that the purpose of the material surveillance program is to monitor changes in the fracture toughness properties of ferritic materials in the reactor vessel beltline region of light water nuclear power reactors which result from exposure of these materials to neutron irradiation and thermal environment. Under the program, fracture toughness test data are obtained from material specimens exposed in surveillance capsules, which are withdrawn periodically from the reactor vessel.

ISSUE

Out of the capsules that have been removed and tested, capsule Z had the highest fluence value at  $1.04 \times 10^{19}$  n/cm<sup>2</sup> with a lead factor of 3.48. The most recent capsule tested, which was removed in 2003, had a capsule fluence of  $8.74 \times 10^{18}$  n/cm<sup>2</sup> with a lead factor of 1.49. The proposed schedule would postpone the withdrawal and testing of the next capsule until refueling outage 23 (currently scheduled for March 2025) which would have a capsule fluence of approximately  $1.85 \times 10^{19}$  n/cm<sup>2</sup> with a lead factor of 1.52. This fluence would correspond to a reactor vessel peak fluence of  $1.22 \times 10^{19}$  n/cm<sup>2</sup>.

REQUEST

Estimate when the vessel peak fluence is expected to exceed the fluence of capsule Z. Further, describe how the fluence of the reactor vessel beltline materials will be monitored once the reactor vessel peak fluence surpasses that of capsule Z.

Enclosure

January 14, 2015

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Sincerely,  
**/RA/**  
Douglas V. Pickett, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
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**ADAMS ACCESSION NO.: ML15012A302**

OFFICE	LPL1-1/PM	LPL1-1/LA	EVIB/BC	LPL1-1/BC
NAME	DPickett	KGoldstein	SRosenberg by memo dated	BBeasley
DATE	01/14/2015	01/14/2015	01/08/2015	01/14/2015

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