

June 14, 2002

Mr. G. A. Kuehn, Jr.  
Vice President SNEC and  
Program Director SNEC Facility  
GPU Nuclear, Inc.  
Route 441 South  
P.O. Box 480  
Middletown, PA 17057-0480

SUBJECT: SAXTON NUCLEAR EXPERIMENTAL FACILITY - DISCUSSION TOPICS FOR  
JUNE 21, 2002, MEETING (TAC NO. MA8076)

Dear Mr. Kuehn:

We are continuing our review of your amendment request for Amended Facility License No. DPR-4 for the Saxton Nuclear Experimental Corporation Facility which you submitted on February 2, 2000, as supplemented. As part of our review, we have arranged a meeting with you that is open to public observation on June 21, 2002, to discuss details of our review of your application related to health physics issues. The details of the meeting were sent to you under separate cover. This is a follow-up to our meetings of April 8, 2002, and May 22, 2002.

To facilitate our discussions on June 21, 2002, please find enclosed comments and issues that were identified during our review of your License Termination Plan, response to requests for additional information and characterization information. The enclosure is not a request for additional information and may not contain all technical issues identified by the staff. Following our meeting, we may issue a request for additional information based on the outcome of the meeting.

If you have any questions regarding this review, please contact me at (301) 415-1127.

Sincerely,

*/RA/*

Alexander Adams, Jr., Senior Project Manager  
Research and Test Reactors Section  
Operating Reactor Improvements Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No. 50-146

Enclosure: As stated

cc w/enclosure: Please see next page



Saxton Nuclear  
Experimental Corporation

Docket No. 50-146

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Alexander Adams, Jr., Senior Project Manager  
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**DISCUSSION ISSUES FOR MEETING BETWEEN THE NRC AND SNEC STAFFS**  
**June 21, 2002**

**1. Update of discussion issues from May 22, 2002, public meeting.**

- Provide status of LTP revisions discussed at this meeting.
- Provide status of off-site laboratory analysis for samples taken under the containment vessel.

**2. Discuss process for licensees provision of LTP change pages and NRC staff review and approval.**

**3. Discussion of the following areas of the LTP:**

- a. Section 2.5, "QA Procedures," page 2-18: Please clarify the procedure used to bring forward decommissioning data from the earlier periods of site remediation for inclusion in the current DQO process. An example could be how previous subsurface soil remediation data was incorporated into the current RSSI process.
- b. Section 3.2, "Remaining Tasks," page 3-2: Consider provision of a summary of embedded and buried pipe that is expected to remain on-site after license termination.
- c. Section 5.2.3.2.3, "Surrogate Ratio DCGLs," page 5-7: Based on the outcome of the May 22, 2002, meeting, the last paragraph of this section should be revised to indicate that when a surrogate ratio is established using data collected prior to remediation, it may not always be the case that additional sampling post-remediation will be done to re-establish this ratio. In such cases, the most conservative ratio representing the radionuclide mix for an area will be applied to the survey unit.
- d. Section 5.2.3.2.4, "Gross Activity DCGLs," page 5-8: Please clarify the statement "Post-remediation sampling will be used to adjust the DCGL values as necessary before performing the FSS." In some cases, it might not be practical to adjust the DCGL but instead to apply a different method to demonstrate regulatory compliance. For example, a smooth concrete surface that is aggressively scabbled could make it difficult to take survey measurements post-remediation. In this case, a different modeling approach might be used other than just a surface DCGL.
- e. Section 5.2.4.4, "Changes in Classification," page 5-14: Revise the second sentence in this section to state that "All changes of area classification (after LTP approval) where a higher classification is lowered (e.g., Class 1 to Class 2), will require a license amendment (see Section 1.0)."
- f. Section 5.2.7.2, "Written Procedures," Table 5-3, page 5-18: Clarify whether a procedure will be developed to cover the preparation and necessary contents of the final status survey report.
- g. Section 5.2.7.6, "SNEC Facility Sample Analysis," page 5-19: The third bullet at the bottom of the page states "5-10% of selected sample groups will be analyzed for Transuranics and Hard-To-Detect (HTD) radionuclides at an off-site laboratory." Please clarify the term "selected sample groups."



- h. Section 5.4, "SURVEY DESIGN," page 5-23: For facility systems, such as system piping, please clarify the survey design or provide a reference to the procedure to be used.
- i. Section 5.4, "SURVEY DESIGN," Table 5-5, page 5-24: Regarding "Footnote i," on subsurface sampling, please provide a reference to the LTP section that describes the subsurface sampling procedure.
- j. Section 5.4.3.2, "Measurement Locations," page 5-28: Regarding the paragraph that begins "Measurement locations selected...", the term "supplemental measurement locations" needs to be explained or possibly deleted.
- k. Section 5.5.2.4.3, "Gamma Scan MDC For Land Areas," page 5-38: Use of the scan MDC values in MARSSIM, Table 6.7, at the Saxton facility is inappropriate. Such values need to be re-derived specific to the Saxton facility.
- l. Section 5.5.3.6, "Hard-To-Detect (HTD) Radionuclides," pages 5-38/39: Reference to the use of the EPRI report on "Utility Use of Constant Scaling Factors" needs to be clarified since (1) the information in this document may not be specific to the conditions at Saxton and (2) uncertainties in the EPRI data are in excess of that applicable to the decommissioning process.
- m. Section 5.5.5.3, "Data Recording," page 5-46: Clarify the meaning of the term "correcting for background" and reference the applicable procedure.
- n. Section 5.8, "Definitions," page 5-54: Definition 26, "Survey Unit," needs to be revised to delete or revise the reference to "the actual size of a survey unit is not deemed to be critical." Under the MARSSIM protocol for survey unit classification and the dose modeling scenario used, there are several significant constraints placed upon the survey unit size.
- o. "Elevated Measurement Comparison," 2<sup>nd</sup> paragraph, page 5-67: Clarify the text at the end of this paragraph concerning measurement densities. Note that NUREG-1727, Appendix E, provides guidance applicable to this issue.

#### **4. Discussion of licensees' Response to Question 22/RAI1 - Resurvey**

The second paragraph to the revised Section 5.4.4.5, "Resurvey" needs to explain that when a new survey unit is separated out from an existing survey unit or an existing survey unit is subdivided, the new survey unit should include a buffer zone that adequately bounds the area of identified contamination.

The fourth paragraph indicates that replacement measurements are collected within the remediated area where only a small fraction of the area (< 10%) of a Class 1-survey unit is remediated. This statement needs to be clarified since replacement samples cannot be taken from areas remediated due to the final status survey and then combined with sample data from the remainder of the survey unit to demonstrate release compliance. When an area in a survey unit is remediated, a new set of the required sample size (i.e., the predetermined sample size from the DQO process) must be obtained during the final status survey.