UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

July 2, 2007

Docket No. 07000371 (Retired) License No. SNM-368 (Terminated)

Robert F. Bonito
General Manager of Operations
UNC Naval Products
20 Research Parkway
Old Saybrook, CT 06475

SUBJECT: UNC NAVAL PRODUCTS, REQUEST FOR ADDITIONAL INFORMATION CONCERNING FINAL STATUS SURVEY PLAN, DATED OCTOBER 4, 2006

Dear Mr. Bonito:

This refers to your Final Status Survey Plan (FSSP) submitted to the NRC on October 4, 2007. During a telephone conversation on June 11, 2007, we discussed the status of our review and stated that we do not have sufficient information to complete the review of your FSSP. In order to continue the review, we ask that you provide responses to the questions listed in the enclosure.

In addition, we stated that the NRC's contractor, Oak Ridge Institute for Science and Education (ORISE) will be employed to provide technical support including review of the FSSP and final status survey report. Also, ORISE will conduct an independent confirmatory survey after your final status survey report has been received and reviewed. Please note that ORISE may require additional information regarding the FSSP before completion of their review.

In accordance with Section 2.390 of the NRC's "Rules and Practices," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR) and will be accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. No reply to this letter is required. Your cooperation with us is appreciated.

If you have any questions regarding this letter, please contact Ms. Laurie Kauffman at (610) 337-5323.

Thank you for your cooperation.

Sincerely,

/***RA/***

Raymond K. Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure: As stated

cc w/encl:
John M. Uruskyj, Corporate Environmental Programs
William Thomas, CHP, CIH, Integrated Environmental Management, Inc.
Michael Firsick, Radiation Protection, CT DEP
Edward Wilds, Ph.D., Director, Radiation Protection, CT DEP

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SUNSI Review Complete: RLorson
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Questions Related to UNC's Final Status Survey Plan (FSSP)

(note page numbers refer to page numbers in the FSSP submittal dated October 4, 2006)

page 5 Release Criteria: The release criteria for the UNC site is 30 pCi/g enriched uranium averaged over 100 m^2. The FSSP states that "No single value greater than 90pCi/g is permitted for unrestricted release." Please justify the acceptability of exceeding the release criteria of 30pCi/g.

page 7 Precision: The FSSP states, "Laboratory sampling precision will be checked by obtaining a minimum of one replicate sample for every 20 physical soil samples collected in a given survey unit." Explain this process.

page 8 Sensitivity: The FSSP states, "Therefore, the required off-site analytical laboratory minimum detectable level (MDL) has been set at 5 pCi/g of U-238." Please explain how this value was determined. Will alpha surface scans be performed? If so, what instrumentation will be used? Please describe how sensitivity will be determined.

pages 9-10 Relative Shift: The FSSP describes that the relative shift will be calculated using 141 as the limit. Please explain what 141 is and how this value was determined.

page 10 Number of Discrete Soil Sample Locations: The FSSP states that UNC will provide up to 33% coverage for soil samples in Class 2 survey units. Please describe how 33% was determined.

page 11 Preparation for Surveys: The FSSP describes a rectangular grid system. A rectangular grid system is not in accordance with the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). Please provide a grid system description consistent with MARSSIM.

page 12 Survey Design - Subfloor Soils: The FSSP states that after impacted soil is excavated and segregated, a Class 1 area will be established for the walls and floors of each excavation. Will separate survey units be established for the walls and floors?

Survey Design - Trench Residues: The FSSP states that direct radiation measurements will be taken on accessible concrete surfaces. Will these direct measurements be fixed or scan measurements?

Survey Design - Sewer: The FSSP states that if the sewer tile is excavated during the remediation of the sewer, then radiation surveys and soil samples will be collected on the floor and walls of the excavation; it further states that this will be classified as a Class 1 area. Will separate survey units be established for the walls and floors?

Enclosure

Survey Design - Soil Surrounding the Sewer Tile: The FSSP describes the soil around the sewer tile to be a Class 2 survey unit. Please explain how the criteria to obtain two samples every 50 feet along the length of the sewer was developed using MARSSIM.

page 17 Surface Soil: The FSSP states that a minimum detectible count rate (MDCR) of 1,352 counts per minute (cpm) is converted to an exposure rate using the detection sensitivity in Table 6. However, we noted that you only listed a conversion factor for uranium 238 (U-238). Please explain your reason for listing U-238, when your contaminants of concern are U-235 and U-234. Please indicate whether you plan to develop a conversion factor for U-234 and U-235 and provide a description of how you determined these values.

page 18 The FSSP describes your minimum detectable activity (MDA) equation. Please describe how the efficiency (E) was determined. Also, the FSSP does not show an equation for the scan minimum detectable concentration (scan MDC). Please describe how the scan MDC was determined. The efficiency and scan MDC do not appear to follow the MARSSIM Chapter 6 methodology.

page 21 Data Conversion: The FSSP describes how the total (fixed plus removable) contamination data will be converted to units of activity. Please describe how E was determined?

page 22 Soil Sampling Locations: The FSSP states that the sample location strategy will utilize a stratified systematic unaligned sampling protocol. Please describe this protocol.

Soil Sampling Locations: The FSSP mentions the use of the following sample descriptions: duplicate, matrix spike/matrix spike duplicate (MS/MSD) samples, replicates. Please define these terms and describe the sampling protocols for each.

Sample Designation: The FSSP states that sample designations for subsurface survey units may not include a survey grid number because these survey units are expected to be less than 2,000 m^2 in area. Does this mean that sub-surface samples will have no reference system? Please clarify and provide a justification for not using a grid system for the sub-surface samples.

page 25 Conversion of Data to Release Criteria Units: The FSSP states, “A verification that the sample sizes determined for the tests are sufficient to achieve the DQOs set for the Type I (a) and Type II (b) error rates will be completed.” Please describe the type of power curve that will be utilized.

page 36 Table 6. The table appears incomplete regarding the conversion factor for enriched uranium. Please provide specific information regarding the radioactive nuclides of concern.