

January 25, 2007

Mr. Gerard van Noordennen
Regulatory Affairs Manager
Yankee Atomic Electric Company
49 Yankee Road
Rowe, MA 01367

SUBJECT: YANKEE NUCLEAR POWER STATION - APPROVAL OF FINAL STATUS
SURVEY REPORTS OMB-06, OOL-15, BRT-01, NOL-04, AUX-02, OOL-16,
SVC-01, OOL-13, NOL-05, OOL-07, AND OOL-09

Dear Mr. van Noordennen:

By letters dated August 9, 2006, August 23, 2006, August 31, 2006, September 7, 2006, September 18, 2006, September 21, 2006, September 26, 2006, October 5, 2006, October 6, 2006, and October 16, 2006, Yankee Atomic Electric Company (YAEC) submitted final status survey reports (FSSRs) for the following survey units:

OMB-06	Concrete structure at discharge end of circulating water system known as the Seal Pit
OOL-15	Open land area on northeast edge of industrial area
BRT-01	Concrete foundations and support structures for the vapor container and reactor
NOL-04	Open land area in southeast portion of the former radiologically controlled area
AUX-02	Concrete structures, portion of primary auxiliary building not designed for radioactive materials
OOL-16	Open land area, site of former visitors center
SVC-01	Concrete structures, service building foundation
OOL-13	Open land area, section of Sherman Reservoir Bank adjacent to the former radiologically controlled area
NOL-05	Radiologically controlled land area, where RCA Warehouse, Waste Disposal Building, and the Radioactive Waste Compactor Buildings were
OOL-07	Open land areas used for parking areas and soil stockpiling
OOL-09	Open land area known as the southeast construction fill area outside the radiologically controlled area

By letter dated July 12, 2006, the staff forwarded a request for additional information on the use of an *in situ* gamma ray spectroscopy (Canberra's ISOCS [In Situ Object Counting System]) for final status survey scans. By e-mails dated October 6, 2006, and November 3, 2006, the staff forwarded requests for additional information on the subject FSSRs to YAEC. YAEC responded by letters dated August 16, 2006, and November 16, 2006. Those responses included an assessment regarding the effective dose equivalent (EDE) of Co-60 and Cs-137 hot particles.

Table 3 in the August 16, 2006, response indicated that the EDE for a 1.7 μCi Co-60 particle deposited on the skin would be approximately 2 mrem for a 24-hour exposure. Likewise, the EDE for a 5.77 μCi Cs-137 particle would be approximately 2 mrem for a 24-hour exposure. YAEC stated that Co-60 and Cs-137 particles of this activity would be identified during ISOCS surveys or during the Elevated Measurement Comparison survey process. The U.S. Nuclear Regulatory Commission (NRC) requirements specify Total Effective Dose Equivalent as the dose assessment criteria for decommissioning activities. The determination of external dose (i.e., EDE in this case) is considered an appropriate dose calculation for hot particles, and the YR response of August 16, 2006 adequately addressed the NRC questions on the hot particle doses.

Based on our review of the submitted FSSRs and the licensee's responses to NRC comments on the FSSRs and the ISOCS, we have determined that the subject FSSRs are acceptable. The staff notes that the documentation of the locations where SPA-3 gamma scan surveys were done in class 2 & 3 survey units needs improvement and that YAEC has not provided the SPA-3 survey results in some of the FSSRs, but has agreed to provide this information in the future.

In accordance with 10 CFR 2.390 of the NRC's "Rules of General Applicability," a copy of this letter and the referenced correspondence will be available electronically in the NRC Public Document Room or from the Publically Available Records (PARS) component of the NRC's document system (ADAMS) at the referenced ML numbers. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions concerning this matter, please contact me at (301) 415-3017.

Sincerely,

/RA/

John B. Hickman, Project Manager
Reactor Decommissioning Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials and
Environmental Management Programs

Docket No.: 50-029

Enclosure: Reference List

cc: Yankee Rowe Service List

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References:

1. YNPS-FSS-OMB-06 August 9, 2006 (ML070160273)
2. YNPS-FSS-OOL-15 August 9, 2006 (ML070160270)
3. YNPS-FSS-BRT-01 August 28, 2006 (ML070160537)
4. YNPS-FSS-NOL-04 August 31, 2006 (ML070160541)
5. YNPS-FSS-AUX-02 September 7, 2006 (ML070160490)
6. YNPS-FSS-OOL-16 September 18, 2006 (ML070160522)
7. YNPS-FSS-SVC-01 September 21, 2006 (ML070160544)
8. YNPS-FSS-OOL-13 September 26, 2006 (ML070160540 & ML062780397)
9. YNPS-FSS-NOL-05 October 5, 2006 (ML062970049, ML062970051, ML062970053, ML062970057, ML062970060, ML062970062, ML062970066, ML062970069, ML062970071, ML062970072 & ML062970075)
10. YNPS-FSS-OOL-07 October 6, 2006 (ML062970014, ML062970015, ML062970017, ML062970021, ML062970030, ML062970033, ML062970035, ML062970036, ML062970039, & ML062970042)
11. YNPS-FSS-OOL-09 October 23, 2006 (ML062930081, ML062930082, ML062930083, ML062930084, ML062930085, ML062930087, ML062930090, ML062930091, ML062930093, ML062930094 & ML062930095)
12. NRC letter July 12, 2006 (ML061860231)
13. E-Mail NRC to YAEC October 6, 2006 (ML063410409)
14. E-Mail NRC to YAEC November 3, 2006 (ML063410415)
15. YAEC letter August 16, 2006 (ML062340104)
- 16 YAEC letter November 16, 2006 (ML063320439 & ML063320442)

Enclosure