NYR.2007-038



COMMONWEALTH OF MASSACHUSETTS

WESTERN REGIONAL OFFICE

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ARLEEN O'DONNELL Commissioner

JUN 1 9 2007

Yankee Atomic Electric Company 49 Yankee Rd Rowe, MA 01367 Attention: Joseph Bourassa, Director of Site Closure and Project Support

RE:

Rowe-DSWM-07-253-009 MADEP - Approval Post-Closure Groundwater Monitoring Plan 310 CMR 19.000 & 310 CMR 40.0000 Yankee Nuclear Power Station 49 Yankee Road

Dear Mr. Bourassa:

On June 12, 2007 the Massachusetts Department of Environmental Protection (MassDEP) received the Final Post-Closure Groundwater Monitoring Plan (the Groundwater Monitoring Plan) for the former Yankee Nuclear Power Station (YNPS) in Rowe, MA. The Groundwater Monitoring Plan was prepared and submitted by Yankee Atomic Electric Company (Yankee), the owner of the YNPS, in accordance with MassDEP regulations and requirements governing groundwater monitoring at the YNPS site, including the following:

- Massachusetts Solid Waste Regulations at 310 CMR 19.000 for post-closure maintenance and monitoring of the Southeast Construction Fill Area (SCFA) on the YNPS site;
- Massachusetts Solid Waste Regulations at 310 CMR 19.000 for post-closure maintenance and monitoring of the Subsurface Structures Beneficial Use Determination (BUD) permitted fill area, which allows subsurface structures (foundations and buried utilities) to remain in place, along with concrete and asphalt rubble from demolition of site structures, and SCFA soils, at the former industrial facility area of the YNPS site; and
- Massachusetts Bureau of Waste Site Cleanup regulations (the Massachusetts Contingency Plan, or MCP), at 310 CMR 40.0000, for the YNPS site-wide, Final BWSC Phase II Assessment, including the Final Risk Assessment for the YNPS site.

## **MASSDEP DETERMINATIONS**

MassDEP has reviewed the Groundwater Monitoring Plan in accordance with the Massachusetts Solid Waste Regulations 310 CMR 19.000, and also in accordance with the Massachusetts Contingency Plan, 310

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD Service - 1-800-298-2207.

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CMR 40.0000. MassDEP approves the Groundwater Monitoring Plan in accordance with the regulations at 310 CMR 19.000 and 310 CMR 40.0000, subject to the following conditions and requirements.

- 1. Yankee shall perform groundwater monitoring at the YNPS site in accordance with the attached Post-Closure Groundwater Monitoring Plan table, which was included within the Groundwater Monitoring Plan. MassDEP may, in writing, extend or shorten the post-closure monitoring period, or modify the post-closure monitoring requirements, if deemed appropriate based on protection of public health, safety, and the environment.
- 2. Except as modified by the conditions of this approval, Yankee shall also comply with all of the requirements of: MassDEP's Corrective Action Design (CAD) and Closure Certification permit approvals for the SCFA; MassDEP's June 19, 2007 Revised Beneficial Use Determination (BUD) for Structures permit approval; and the MassDEP's review of the Final BWSC Phase II Assessment for the YNPS site, including the Final Risk Assessment.

Yankee shall submit the results of all groundwater monitoring data to MassDEP within 45 days of the date of sampling.

MassDEP reserves the right to modify this approval at any time, based on its review of the results of monitoring data, should MassDEP determine that additional groundwater monitoring is required to protect public health, safety or the environment.

MassDEP and its agents and employees shall have the right to enter upon the YNPS site at reasonable times and with reasonable notice, to inspect the groundwater monitoring network, and to otherwise monitor compliance with this Approval and other MassDEP environmental laws and regulations. This right of entry and inspection shall be in addition to MassDEP's access authorities and rights under applicable federal and states laws and regulations, as well as any permits or other agreements between the Permittee and MassDEP.

This Determination pertains only to MassDEP requirements for groundwater monitoring at the YNPS site and does not negate the responsibility of the owners or operators to comply with any other applicable state, local, or federal laws or regulations now or in the future.

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If you have any questions concerning this matter, please contact the undersigned of this office, at #413-755-2280, or Larry Hanson of this office, at #413-755-2287.

Sincerely. David Howland Regional Engineer

## DH/LGH/lgh

Word:yankgwmonplanapprov61807 Attachment - table cc: Rowe Board of Selectmen

Rowe Board of Selectmen Rowe Board of Health Rowe Conservation Commission ERM, Inc. – John McTigue, LSP MA DPH – Radiation Control Program – Michael Whalen USEPA, Washington – Philip Newkirk USEPA, Region 1 – Ernest Waterman, Kimberly Tisa NRC – John Hickman DEP/WERO – David Howland DEP/Boston/BWP – Paul Emond DEP/Boston/ORS – Nancy Bettinger, Carol Rowan-West Franklin Regional Council Of Governments Citizens Awareness Network – Deborah Katz

## Post-Closure Groundwater Monitoring ProgramYankee Nuclear Power StationRowe, MA

Monitoring Well/Location	Analytical Program and Frequency	Comments
MW-104A	• Tritium, Gamma and Sr-90 - annually for 4 years, every 2 years for 6 years and every 5 years for 20 years	Post Closure Downgradient Sample Location
MW-105B	• Tritium, Gamma and Sr-90 - annually for 4 years, every 2 years for 6 years and every 5 years for 20 years	Post Closure Sample BUD Location
MW-106A	• Tritium, Gamma and Sr-90- annually for 4 years, every 2 years for 6 years and every 5 years for 20 years	Post Closure Downgradient Sample Location
CFW-1 (Note 1)	• SCFA Parameters - annually for 5 years and every 2 years to 30 years	Required by Solid Waste Regulations
CFW-5 (Note 1)	<ul> <li>Tritium - annually for 4 years</li> <li>SCFA Parameters - annually for 5 years and every 2 years to 30 years</li> </ul>	Required by Solid Waste Regulations
CFW-6 (Note 1)	<ul> <li>Tritium - annually for 4 years</li> <li>SCFA Parameters - annually for 5 years and every 2 years to 30 years</li> </ul>	Required by Solid Waste Regulations
MW-101A	<ul> <li>Arsenic - annually for 4 years or until 2 consecutive rounds below &lt; RC (Note 2)</li> </ul>	Arsenic exceeded RC in December 2006, other metals below RCs
MW-101C	• Acetone - until 2 consecutive rounds below < RC (Note 2)	Acetone exceeded RC in March 2007
MW-102D	<ul> <li>Tritium</li> <li>Gamma and Sr-90 - every 2 years for the first 4 years (years 2 and 4)</li> </ul>	· · · · · · · · · · · · · · · · · · ·
MW-107A	• Arsenic - until 2 consecutive rounds below < RC (Note 2)	Arsenic exceeded RC in Dec 2006, other metals below RCs
MW-107C	• Tritium, Gamma and Sr-90 - annually for 4 years, every 2 years for 6 years and every 5 years for 20 years	Long-Term Sample Location
MW-107D	<ul> <li>Tritium - annually for 4 years</li> <li>Gamma and Sr-90 - every 2 years for the first 4 years (years 2 and 4)</li> </ul>	
MW-107E	<ul> <li>Tritium - annually for 4 years</li> <li>Gamma and Sr-90 - every 2 years for the first 4 years (years 2 and 4)</li> </ul>	
MW-107F	<ul> <li>Tritium - annually for 4 years</li> <li>Gamma and Sr-90 - every 2 years for the first 4 years (years 2 and 4)</li> </ul>	
MW-111C	• Arsenic - until 2 consecutive rounds below < RC (Note 2)	Arsenic exceeded RC in March 2007
SP-1 (Sherman Spring)	<ul> <li>Tritium, Gamma and Sr-90 - annually for 4 years, every 2 years for 6 years and every 5 years for 20 years</li> <li>RCRA 8 Metals and VOCs - annually for 4 years, every 2 years for 6 years and every 5 years for 20 years</li> </ul>	Post Closure Downgradient Sample Location

Note 1: Annual monitoring started in August 2006 after remediation was complete for the SCFA. All other monitoring started in March 2007.

Note 2: Samples will be taken at the same frequency as the post closure monitoring locations, but could be taken more frequently to achieve 2 consecutive samples below the Reportable Concentration (RC).