

NYR-2007-039



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WESTERN REGIONAL OFFICE
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IAN A. BOWLES
Secretary

TIMOTHY P. MURRAY
Lieutenant Governor

ARLEEN O'DONNELL
Commissioner

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

JUN 19 2007

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TransCanada Hydro Northeast, Inc.
4 Park St.
Concord, NY 03301
Attention: Michael G. Kline, General Manager

RE: Rowe-DSWM-07-253-009
MADEP Solid Waste Permitting
Beneficial Use Determination (BUD)
Subsurface Structures/Concrete Rubble
Revised Permit Approval
Yankee Nuclear Power Station
49 Yankee Road
BWPSW013
Transmittal #W050861

Revised BUD Permit Approval

Dear Mr. Bourassa:

On September 9, 2005 the Solid Waste section of the Massachusetts Department of Environmental Protection (MassDEP) issued a Final Beneficial Use Determination (BUD) permit, hereinafter referred to as "the original BUD" to leave subsurface structures (foundations and buried utilities) in place, along with concrete and asphalt rubble from demolition of site structures, and SCFA soils, at the former industrial facility area of the Yankee Nuclear Power Station (YNPS) in Rowe, MA. A revision to the BUD permit application, entitled Revised Beneficial Use Determination (BUD) for Structures, hereinafter referred to as "the Revised BUD" was submitted to MassDEP on November 8, 2006, which contained some modifications and updated information relative to the original application. The original and revised BUD permit applications were prepared on behalf of the YNPS owner, Yankee Atomic Electric Company (Yankee), by

Yankee's consultant, Environmental Resources Management (ERM) of Boston, MA.

This Revised BUD approval will not repeat all of the summary information or requirements of the September 9, 2005 Original BUD approval; only the proposed modifications and updated information will be addressed.

General Information

The "Facility" portion of the YNPS is defined as the former industrial area where facility structures were located, and the BUD area coincides with the Facility area. Yankee has completed the demolition of concrete or cinder-block building foundations and/or slabs within the Facility area, the removal of many of the buried utilities within the Facility area, crushing of the concrete rubble on-site, the placement of the 3-foot thick soil cover over the BUD Fill Area, and final site grading. Within the Facility area, Yankee was allowed by the Original BUD permit approval to leave in-place a number of sub-surface building foundations, slabs, and buried utilities, and to use a portion of the clean crushed concrete rubble (and asphalt rubble), along with SCFA soils, as fill in this area.

Radiological assessment of the BUD Area and BUD materials was performed in accordance with: NRC requirements for the LTP; MADPH correspondence to Yankee dated December 17, 2004; MassDEP requirements for the BWSC Phase II Risk Assessment; and MassDEP requirements as outlined in the September 9, 2005 Original BUD permit approval. Non-radiological assessment of the BUD Area and BUD materials was performed in accordance with: MassDEP requirements for the BWSC Phase II Risk Assessment; and MassDEP requirements as outlined in the September 9, 2005 Original BUD permit approval.

Proposed Modifications to the Original BUD permit

The Revised BUD contains a list of all previous structures at the facility, which details whether the structure was fully or partially removed, and the amount of concrete left in place if the structure was not fully removed. Yankee has completed the majority of the work required under the Original BUD permit, including completion of the following:

- Yankee completed removal of all of the structures which were required to be removed by Condition 3 of the Original BUD permit approval;
- Radiological and non-radiological assessment of the BUD Area was completed in accordance with Condition 5 of the Original BUD permit approval;
- All rubble used as fill in the BUD Area, and all buried utilities left on-site in the BUD Area, contained no distinguishable plant-related radioactivity above background levels, as required by Condition 6 of the Original BUD permit approval;
- The remaining concrete structures, soil, rubble fill, and groundwater in the BUD Area will meet the remedial requirements of the MassDEP, NRC, MADPH, and USEPA;
- A 3-foot thick layer of soil was placed over the entire BUD Fill Area, and seeded with grass. The soil contained no distinguishable plant-related radioactivity above background levels, as required by Condition 12 of the Original BUD permit approval; and
- The concrete rubble from the Reactor Support Structure, which contained plant-related tritium above background levels, was not used as fill, but rather was shipped off-site for proper disposal.

This Revised BUD approval formally approves several minor modifications to the Original BUD, which

have been completed by Yankee, as noted below.

The Revised BUD contains the following modifications or updates to the Original BUD:

- Additional concrete structures were removed in their entirety beyond those originally proposed;
- Approximately 250 lineal feet of 2-inch thick creosote wooden timbers were left in place at the top of portions of the buried concrete duct banks;
- Approximately 300 lineal feet of the original site railroad lines, including the steel tracks, creosote wooden railroad ties, and stone ballast, were left buried in-place;
- The volume of on-site rubble used as fill was reduced from the estimated volume in the Original BUD;
- The boundaries of the BUD Area were modified slightly from those outlined in the original BUD permit application; and
- Only a small portion of the SCFA soil was used as fill in the BUD Area, as the majority of the SCFA soil remained in the SCFA.

MASSDEP DETERMINATIONS

MassDEP has reviewed the Revised BUD permit application to reuse on-site structures and rubble as fill, within the industrial Facility area of the YNPS, in accordance with the Massachusetts Solid Waste Regulations 310 CMR 16.00 & 19.000, and also in accordance with the Massachusetts Contingency Plan, 310 CMR 40.0000. MassDEP approves the Revised BUD permit in accordance with the regulations for Beneficial Use of Solid Wastes at 310 CMR 19.060 and the permit review process at 310 CMR 19.037, subject to the following conditions and requirements.

1. All of the requirements of MassDEP's Original BUD permit approval, dated September 9, 2005, remain in force and unchanged, unless specifically modified by this Revised BUD permit approval.
2. In addition to the BUD requirements, Yankee shall also comply with all of the requirements of MassDEP's October 7, 2005 BWSC Interim Phase II Assessment review for the YNPS site, as well as future requirements of MassDEP's review of the Final BWSC Phase II Assessment for the YNPS site, including the Final Risk Assessment, consistent with the requirements of the Massachusetts Contingency Plan, 310 CMR 40.0000 (the MCP).
3. MassDEP approves Yankee's proposal to leave in-place within the BUD Area a limited amount of asbestos-containing material (ACM) within mastic coatings on subsurface concrete structures. As outlined at Condition 16 of the Original BUD permit and Condition 9 of this Revised BUD permit, Yankee must identify all specific locations of buried ACM left on-site on the as-built plan to be contained in the Deed Restriction for the BUD Area. Yankee (or any subsequent successor, heir or assignee) is responsible to ensure that these areas containing ACM are not disturbed without prior written approval of MassDEP, and that all proper precautions and Health & Safety measures are taken to avoid any release of asbestos to the environment from the subject ACM.
4. Yankee shall establish a Financial Assurance Mechanism, as outlined at 310 CMR 19.051, and in an amount approved or required by MassDEP, to cover the costs of maintenance and monitoring of the BUD Fill Area for the 30-year post-closure maintenance and monitoring period. The Final FAM shall be included with the Deed Notification for the BUD Area,

and shall be fully established and funded at the time of the submittal of the Deed Notification to MassDEP. A Draft FAM mechanism and FAM estimate shall be submitted to MassDEP for review and approval prior to submittal of the Final FAM.

As outlined at 310 CMR 19.142, MassDEP may, in writing, extend or shorten the 30-year post-closure maintenance and monitoring period, if deemed appropriate based on protection of public health, safety, and the environment.

5. No transfer of this permit shall be permitted except in accordance with the MassDEP's regulations at 310 CMR 19.044.
6. **Deed Notification/Activity and Use Limitation:** Prior to issuance of the Final BWSC Phase II Assessment approval from MassDEP, a notification shall be placed on the deeds for both the YNPS property and the TransCanada property, consistent with MassDEP's Solid Waste regulations at 310 CMR 19.141, relative to the BUD permit area. MassDEP will not issue the Final Phase II approval until the documentation of placement of the deed notifications is received. The deed notifications shall specifically contain the following:
 - A. Identification of record owners of the property;
 - B. A description of the BUD Area on the property, by metes and bounds and by reference to an appropriate map or plan to be recorded therewith, signed by a Massachusetts-registered professional engineer or land surveyor, depicting:
 - a. the boundaries of the BUD Area;
 - b. the boundaries of the BUD Fill Area for asphalt and concrete rubble and SCFA soils;
 - c. the boundaries of the 3-foot soil cover area;
 - d. the location and identification of all subsurface structures remaining within the BUD Area, including all foundations, slabs, and buried utilities;
 - e. the location of any asbestos-containing materials (ACM), i.e. mastics on subsurface structures, remaining within the BUD Area; and
 - f. the location of any and all groundwater monitoring wells within and immediately downgradient of the BUD Area;
 - C. A cross-section depicting the type and extent of the soil cover on the BUD Fill Area;
 - D. A description of the nature and duration of post-closure maintenance for the BUD area;
 - E. Reference to the MassDEP file number (Solid Waste File #253-009) for identifying the Structures BUD file; and
 - F. The deed notification shall contain the following statement " The premises described herein are subject to the provision of MGL c. 111, sec. 150A and 310 CMR 19.000. Said premises shall not be used for any purpose other than as a closed, regulated fill area, and in no case shall be used as a residential area, without prior written approval of the Massachusetts Department of Environmental Protection (MassDEP). Continued maintenance and monitoring of the site as a regulated fill area is required, consistent with the terms of MassDEP's Beneficial Use Determination Permit Approval. Any transfer of the Beneficial Use Determination permit for the premises shall be performed in accordance with 310 CMR 19.044. The procedure for MassDEP approval for any use other than as a closed, regulated fill area is set forth at 310 CMR 19.143. Such MassDEP approval of other use is transferable or assignable only upon written approval of MassDEP."

Yankee shall submit to MassDEP documentation that the deed notifications were completed as required above and recorded at the Franklin County Registry of Deeds.

7. The post-closure requirements at 310 CMR 19.143 shall apply to the BUD Area, including the requirement that there shall be no disturbance of the 3-foot soil layer, excavation of the BUD Area, or any other invasive procedures in the BUD Area (i.e soil borings, well installation, etc.), without prior written approval from MassDEP. There shall be no use of the BUD area for residential purposes. Post-closure maintenance shall be performed for the BUD Area, as outlined at 310 CMR 19.142, including maintenance of the soil layer and grass cover. Any erosion of the soil cover layer shall be immediately repaired. The BUD Area shall be maintained in accordance with the "Post-Decommissioning Grading Plan and Stormwater Management Analysis" and the "Post-Decommissioning Planting Plan and Specifications" dated August 2004 or as subsequently updated (as approved by MassDEP). Post-closure environmental monitoring of the BUD Area shall be performed as outlined in MassDEP's written review of: the Final Post-Closure Groundwater Monitoring Plan; and the Final BWSC Phase II Report and Risk Assessment. The requirements set out in this paragraph may be modified in the future only upon written approval by MassDEP.
8. The material within the BUD Area, including all building foundations, slabs, and buried utilities, all concrete and asphalt rubble, SCFA soils and concrete/asphalt rubble, and existing soil and groundwater, must be included in the site-wide Risk Assessment (for both non-radiological and radiological parameters) to be completed as part of the site-wide Final BWSC Phase II Report.
9. Yankee is responsible for obtaining (and complying with) any other local, state or federal permits which may be necessary for utilization of the subject materials in the BUD permit, including any permits required by MassDEP, USEPA, NRC, MADPH, or the Rowe Conservation Commission, as appropriate.
10. MassDEP reserves the right to modify or rescind this approval at any time, should the conditions of this approval not be met, should nuisance conditions be created, or should MassDEP otherwise determine that the BUD materials or BUD Area poses a threat to public health, safety or the environment. MassDEP reserves the right to restrict, modify or rescind this BUD permit approval based on its review of the results of monitoring data, including soil and groundwater sampling and analysis.
11. MassDEP and its agents and employees shall have the right to enter upon the site at reasonable times and with reasonable notice, to inspect the BUD Area and to otherwise monitor compliance with this Permit 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.

Pursuant to 310 CMR 19.037(5), any person aggrieved by the issuance of this decision, except as provided for under 310 CMR 19.037(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, s. 150A and C. 30A not later than thirty [30] days following notice of this decision. Any aggrieved person intending to appeal the decision to the superior court shall provide notice to MassDEP of said intention to commence such action. Said Notice of Intention shall include the MassDEP File Number (05-253-009) and shall identify with particularity the issues and reason(s) why it is believed the approval decision was not proper. Such

notice shall be provided to the Office of General Counsel of MassDEP and the Regional Director for the regional office which made the decision.

The appropriate addresses to which to send such notices are:

General Counsel
Department of Environmental Protection
One Winter Street
Boston, 02108

&

Regional Director
Department of Environmental Protection
436 Dwight Street - 5th Floor
Springfield, MA 01103

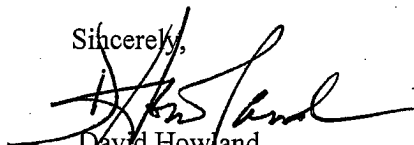
No allegation shall be made in any judicial appeal of this decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in those regulations, provided that matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures or that matter sought to be raised is of critical importance to the public health or environmental impact of the permitted activity.

This Determination pertains only to the solid waste management aspect of the proposal 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.

MassDEP has determined that the filing of an Environmental Notification Form ("ENF") with the Secretary of Environmental Affairs, for solid waste management purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act and Regulation 301 CMR 11.00, Section 11.04 provide certain "Fail-Safe Provisions" which allow the Secretary to require the filing of an ENF and/or Environmental Impact Report at a later time.

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:yankstruxbudrev507

cc: 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