26 June 2003
Reference: 2107
BYR 2003-054

Mr. David Howland
Massachusetts Department of Environmental Protection
Western Region
436 Dwight Street
Springfield, MA 01103

RE: Chapter 91 Applicability
Yankee Nuclear Power Station
Rowe, Massachusetts

Dear Mr. Howland:

On behalf of Yankee Atomic Electric Company (YAEC), Environmental Resources Management (ERM) is requesting an informal determination from the Department regarding the applicability of Chapter 91 for the Yankee Nuclear Power Station (YNPS) located in Rowe, Massachusetts (see Figure 1). This request is being submitted to support the evaluation of regulatory requirements related to decommissioning of the YNPS, which is located adjacent to Sherman Reservoir.

Massachusetts General Law Chapter 91 regulates activities in tidelands, Great Ponds (ponds that are over 10 acres in their natural state), and certain rivers and streams. Sherman Reservoir was created in 1927 following the construction of Sherman Dam and the associated hydroelectric plant. There was not a pond in the vicinity of the site prior to the construction of the dam, therefore, Sherman Reservoir is not a Great Pond, as defined by 310 CMR 9.02.

YAEC is requesting clarification regarding the applicability of Chapter 91 to the following decommissioning activities, which are located on Figure 2:

1. Excavation of shallow sediments underlying Sherman Reservoir (excavation activities are currently expected to cover approximately 14,000 square feet and extend up to one foot into the sediment; additional sediment characterization is planned to confirm the extent of excavation).
2. Removal of the cooling water discharge structure along the shoreline of Sherman Reservoir.

3. Decommissioning of the cooling water intake pipe that extends 200 feet into Sherman Reservoir (a decision on how to decommission the intake structure has not been made yet).

For reference purposes, ERM estimated the high water mark of the Deerfield River prior to construction of Sherman Dam using the following resources:

- 1924 USGS topographic map (Figure 3)
- 1974 bathymetry map of Sherman Reservoir, prepared by Aquatec, Inc.

The boundary of the Deerfield River as shown on the 1924 USGS map has been overlaid onto the current USGS map (see Figure 1) and the 1974 bathymetry map has been overlaid onto the current site survey map (see Figure 4). The maps are in general agreement and show that the Deerfield River passed through the central portion of Sherman Reservoir. Of the three proposed decommissioning activities, only decommissioning of the intake pipe extends into the historic high water mark of the Deerfield River. Options for decommissioning the intake pipe (a 10 foot diameter corrugated steel pipe) include leaving it in-place, filling the pipe in-place, and removing it. Yankee will be evaluating these options during the permitting process and has not reached a final determination.

To aid in the evaluation of Chapter 91 applicability, ERM conducted a file review at the Department’s Waterways Research Area to identify historic Chapter 91 permits and licenses in the vicinity of the site. This review determined that there were no permits related to the construction or operation of YNPS. Licenses obtained for various construction activities at Sherman Dam and other hydroelectric facilities are summarized below:
<table>
<thead>
<tr>
<th>Permit #</th>
<th>Year</th>
<th>Licensee</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>4727</td>
<td>1963</td>
<td>NE Power Co.</td>
<td>Modifications to Sherman Dam</td>
</tr>
<tr>
<td>5838</td>
<td>1971</td>
<td>NE Power Co.</td>
<td>Construct/maintain earth dam (Deerfield Dam #5)</td>
</tr>
<tr>
<td>5842</td>
<td>1971</td>
<td>NE Power Co.</td>
<td>Permit in Florida, MA</td>
</tr>
<tr>
<td>6152</td>
<td>1973</td>
<td>NE Power Co.</td>
<td>Construct/maintain power transmission line over river</td>
</tr>
<tr>
<td>323</td>
<td>1977</td>
<td>NE Power Co.</td>
<td>Maintain slope stabilization, Bear Swamp Lower Reservoir</td>
</tr>
<tr>
<td>2393</td>
<td>1990</td>
<td>NE Power Co.</td>
<td>Construct/maintain spillway, retaining wall, cofferdams at Deerfield Dam #5</td>
</tr>
</tbody>
</table>

We would appreciate your assistance in working with the Department’s Waterways office to provide an informal determination of the applicability of Chapter 91 to the decommissioning activities at YNPS. Please call to discuss this request or to schedule a meeting to evaluate Chapter 91 applicability to this project in greater detail.

Sincerely,

[Signature]
Gregg A. Demers, P.E., LSP
Project Manager

[Signature]
John W. McTigue, R.G., LSP
Principal-in-Charge

Enclosures:  Figure 1: Current USGS Map  
Figure 2: Proposed Activities in Waterway  
Figure 3: 1924 USGS Map  
Figure 4: Sherman Reservoir Bathymetry Overlay

cc:     Ken Dow, Yankee Atomic Electric Company