



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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April 30, 2002

Elizabeth Hellman, P.E.  
Wisconsin Energy Corporation  
231 West Michigan  
Milwaukee, WI 53290-0001

Subject: Point Beach Power Plant WPDES Permit WI-0000957-6  
Abandonment Plan for Wastewater Retention Pond

Dear Ms. Hellman:

We are approving the abandonment plan for the wastewater retention pond located at the Point Beach Nuclear Power Plant. The plan was reviewed for compliance with the abandonment requirements contained in s. NR 213.07, Wis. Adm. Code. The plan was prepared by GeoSyntec Consultants and Elizabeth Hellman, and was received for approval on March 13, 2002. The information provided was thorough and provided all the necessary documentation. The following is our understanding of the abandonment plan.

Design Information

Retention Pond

The pond, with dimensions of 140 feet by 95 feet, was constructed in 1968. It received wastewater from a variety of sources including the sanitary treatment plant, turbine hall sumps, facade sumps, and discharges from the potable water treatment system. The pond provided suspended solids removal by gravity sedimentation. Abandonment of the wastewater retention pond is necessary because its storage capacity has been reduced by the accumulation of 5 feet of sediment. It has been replaced by a new filtration system that was approved January 31, 2000, which will now provide suspended solids removal.

NR 213 Evaluation

The retention pond was reviewed for compliance with the design requirements for industrial wastewater lagoons and groundwater quality standards. The report concluded the waters of the state were not adversely impacted by the retention pond. The retention pond was granted an exemption from the minimum separation from groundwater and was approved for continued use April 10, 1996.

Retention Pond Sediment

Because the sediment has not adversely impacted groundwater quality, and testing confirmed it does not contain concentrations of contaminants at levels of concern, the sediment in the retention pond may be disposed of in place. Approximately 2000 cubic yards of



sediment will be stabilized with a cement mix and covered with 2 foot of soil and 0.5 feet of topsoil. Any residual contamination levels of radionuclides will be less than the NRC decommissioning guideline. The retention pond had previously been dredged and controls were implemented at the power plant after 1975 that reduced the presence of radionuclides in the sediment.

**Wetland Soil Removal**

Prior to 1975, before the effluent was discharged with the cooling water to Lake Michigan, effluent from the retention pond was allowed to run overland and absorb into the soil in a wetland area. Analysis of the soil outside of the retention pond indicates there is some contamination with radionuclides exceeding NRC standards. An estimated 230 cubic yards of soil is impacted. Soil with concentrations of radionuclides greater than 10 pCi/g will be removed in containers and taken to a licensed facility.

**Site Grading**

The retention pond site will be graded to prevent the accumulation of any water. The area will be re-vegetated with native grasses.

**Erosion control**

The retention pond abandonment and wetland soil removal work involves an area about one acre in size. A storm water construction permit is not required if less than 5 acres of ground surface is disturbed. The plan includes runoff controls such as slit fences around the work areas. Questions on storm water permitting may be referred to Cheryl Bougie in the Northeast Region (920-448-5141).

**Chapter 30 Permit**

An application was made for a chapter 30 permit March 20, 2002, for work in and around the wetland area. Mike Hanaway in the Mishicot Service Center will be handling that permitting if needed (920-755-4942).

If you have any questions, please call me at 608-266-0234.

Sincerely,

Paul W. Luebke, P.H.  
Wastewater Permits and Pretreatment Section  
Bureau of Watershed Management

copy: Duane Schuetzpelz - WT/2  
David Gerdman - Northeast Region  
Mike Hanaway - Mishicot Service Center  
Cheryl Bougie - Northeast Region