

April 21, 2005

Ms. Janet Smith  
Field Supervisor  
U.S. Fish and Wildlife Service  
Green Bay ES Field Office  
2661 Scott Tower Drive  
New Franken, WI 54229-9565

SUBJECT: REQUEST FOR CONCURRENCE - BIOLOGICAL ASSESSMENT FOR  
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 LICENSE RENEWAL

Dear Ms. Smith:

The U.S. Nuclear Regulatory Commission (NRC) has prepared a biological assessment (BA) and transmitted it to U.S. Fish and Wildlife Service (FWS) on November 22, 2004. That BA evaluated whether the proposed renewal of the Point Beach Nuclear Plant, Units 1 and 2 (PBNP) operating licenses for a period of an additional 20 years would have adverse effects on listed species. In the BA, the staff has determined that license renewal for PBNP may affect, but is not likely to adversely affect the bald eagle and the piping plover, and will have no effect on the dwarf lake iris and the Pitcher's thistle.

By letter dated January 31, 2005, FWS concurred with NRC determinations regarding the bald eagle, the Pitcher's thistle, and the dwarf lake iris. With regard to the piping plover, FWS noted that the piping plover has not been observed on the PBNP property but that piping plovers may attempt to use the beaches on the PBNP property in the near future. Therefore, FWS requested additional modifications to We Energies' proposed piping plover monitoring framework.

We Energies revised its piping plover monitoring framework based on subsequent discussions with FWS. The revised framework contains six points, as outlined in We Energies' letter to FWS dated February 17, 2005. FWS responded to this revised monitoring framework by letter to We Energies dated March 7, 2005, in which FWS said that it concurs with framework points one through five but suggests a change to point six. This letter supplements the BA by incorporating We Energies' commitment to modify monitoring framework point six by letter to FWS dated March 15, 2005. The We Energies Point Beach piping plover monitoring framework incorporates the suggested changes from FWS, and stands as follows (as adapted from March 15, 2005 letter from We Energies to FWS):

1. No measures will be taken to enhance habitat suitability along the stretch of beach owned by We Energies near the PBNP;
2. An annual piping plover breeding census will be conducted at this location between June 1 and June 15, with a target date of June 10 over the term of the new license;
3. The International Piping Plover Breeding Census (IPPBC) guidelines will be followed, and an IPPBC individual census report will be completed each year;
4. The Green Bay office of the FWS and the Wisconsin Department of Natural Resources

- will be contacted on the same day that piping plovers are found nesting at this location;
5. Contacts with the natural resource agency staffs described in the above step will be used to discuss beach access on the property, measures to protect the nest, and additional monitoring requirements of the nest site;
  6. If piping plovers are observed on the PBNP property, follow up surveys will be conducted in the same year; earlier and repeated surveys will be conducted the next year, continuing for as long as piping plovers are observed at the PBNP property.

NRC is requesting your concurrence with our determination in the November 22, 2004, BA as supplemented by this letter. The original BA is attached to this letter. The staff has determined that license renewal for PBNP may affect, but is not likely to adversely affect the bald eagle and the piping plover, and will have no effect on the dwarf lake iris and the Pitcher's thistle. In reaching our conclusion, the NRC staff relied on information provided by the applicant, on literature research and interviews with experts, and on information provided by FWS.

If you have any questions regarding this BA or the staff's request, please contact Ms. Stacey Imboden, Environmental Project Manager, at 301-415-2462 or via e-mail at [sxf@nrc.gov](mailto:sxf@nrc.gov).

Sincerely,  
/RA/

Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos.: 50-266 and 50-301

Enclosure: Biological Assessment

cc w/o encl.: See next page

J. Smith

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5. Contacts with the natural resource agency staffs described in the above step will be used to discuss beach access on the property, measures to protect the nest, and additional monitoring requirements of the nest site;
6. If piping plovers are observed on the PBNP property, follow up surveys will be conducted in the same year; earlier and repeated surveys will be conducted the next year, continuing for as long as piping plovers are observed at the PBNP property.

NRC is requesting your concurrence with our determination in the November 22, 2004, BA as supplemented by this letter. The original BA is attached to this letter. The staff has determined that license renewal for PBNP may affect, but is not likely to adversely affect the bald eagle and the piping plover, and will have no effect on the dwarf lake iris and the Pitcher's thistle. In reaching our conclusion, the NRC staff relied on information provided by the applicant, on literature research and interviews with experts, and on information provided by FWS.

If you have any questions regarding this BA or the staff's request, please contact Ms. Stacey Imboden, Environmental Project Manager, at 301-415-2462 or via e-mail at [sxf@nrc.gov](mailto:sxf@nrc.gov).

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# **Biological Assessment**

## **Point Beach Nuclear Plant License Renewal Review**

**November 2004**

**Docket Numbers**

**50-266**

**50-301**

**U.S. Nuclear Regulatory Commission  
Rockville, Maryland**

## 1.0 Introduction

The U.S. Nuclear Regulatory Commission (NRC) issues operating licenses for domestic nuclear power plants in accordance with the provisions of the Atomic Energy Act of 1954, as amended, and NRC implementing regulations. The purpose and need for the proposed action (that is, renewal of an operating license) is to provide an option that allows electric power generation to continue beyond the term of the current nuclear power plant operating license, so future generating needs can be met if the operator and State regulatory agencies pursue that option.

Wisconsin Electric Power Company (WEPCO) owns Point Beach Nuclear Plant, Units 1 and 2 (PBNP), and Nuclear Management Company, LLC (NMC) operates PBNP. WEPCO is doing business as We Energies, and is a wholly owned subsidiary of Wisconsin Energy Corporation. In August 2000, WEPCO transferred operating authority for PBNP to NMC (NMC 2004). NMC has prepared an environmental report in conjunction with its application for renewal of the PBNP operating licenses, as provided for by the following NRC regulations:

- Title 10, Energy, Code of Federal Regulations (CFR) Part 54, Requirements for Renewal of Operating Licenses for Nuclear Power Plants, Section 54.23, Contents of Application - Environmental Information (10 CFR 54.23).
- Title 10, Energy, CFR Part 51, Environmental Protection Requirements for Domestic Licensing and Related Regulatory Functions, Section 51.53, Postconstruction Environmental Reports, Subsection 51.53(c), Operating License Renewal Stage [10 CFR 51.53(c)].

The NRC is reviewing an application submitted by NMC (the applicant) for the renewal of the operating licenses for PBNP for a period of an additional 20 years. There will be no major construction, refurbishment, or replacement activities associated with this action. This biological assessment examines the potential effects of the continued operation of PBNP on four Federally-listed species that could occur within the PBNP site, near the site, or along its associated transmission line rights-of-way (ROWs) pursuant to Section 7(a)(2) of the Endangered Species Act.

In a letter dated May 5, 2004 (NRC 2004), the NRC requested that the U.S. Fish and Wildlife Service (FWS) provide lists of Federally-listed endangered or threatened species and information on protected, proposed, and candidate species, as well as any designated critical habitat, that may be in the vicinity of PBNP and its associated transmission line ROWs. In a response dated August 5, 2004 (FWS 2004a), the FWS Green Bay Field Office noted that beach habitat near PBNP could be suitable nesting habitat for piping plover (*Charadrius melodus*) at some time in the future. Three other potentially-occurring Federally-listed species were identified by NRC staff and are included in this assessment.

## 2.0 Proposed Action

The proposed action is the renewal of the operating licenses for PBNP. The plant is located on the western shore of Lake Michigan in Manitowoc County, Wisconsin, approximately 48 km

(30 mi) southeast of Green Bay and 24 km (15 mi) north-northeast of Manitowoc (Figure 1) (NMC 2004). The current operating license for Unit 1 expires on October 5, 2010, and for Unit 2

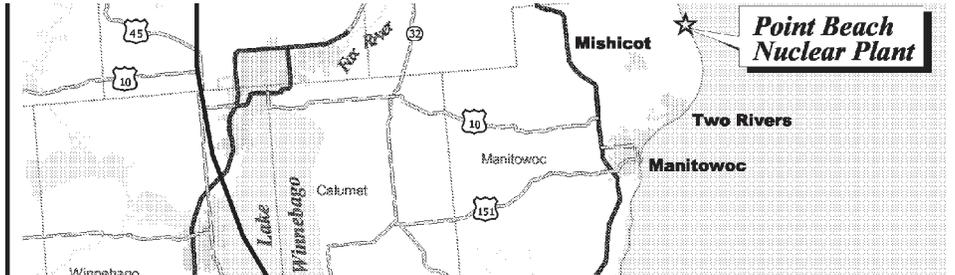
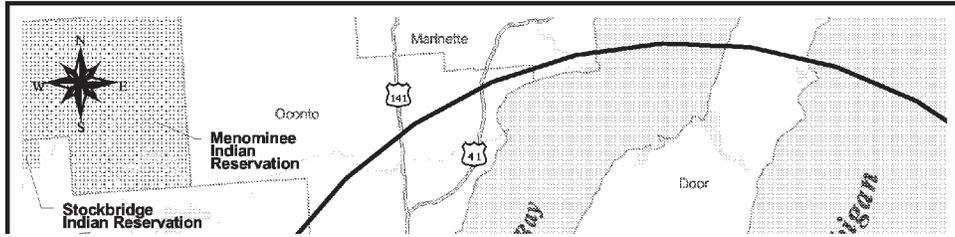


Figure 1. Location of PBNP.

on March 8, 2013. NMC has submitted an application to the NRC to renew these operating licenses for an additional 20 years of operation (i.e., until October 5, 2030, for Unit 1 and March 8, 2033 for Unit 2). The renewed licenses, if issued, will be effective from their date of issuance until 20 years after the expiration date of the current operating licenses.

### **3.0 Environmental Setting**

#### **3.1 Aquatic Resources**

Impacts on Federally-listed terrestrial threatened or endangered species that could potentially occur as a result of continued operation of the plant cooling water system during the renewal period are outlined in this section.

Continued plant operation during the renewal period could potentially affect terrestrial Federally-listed threatened and endangered species as a result of transmission line right-of-way maintenance activities. Lake Michigan is the source of water for the cooling and auxiliary water systems at PBNP, which operates as a once-through cooling plant. Water from Lake Michigan reaches PBNP through a submerged offshore intake. Water returns to Lake Michigan through a surface shoreline discharge. The system removes waste heat from the condensers as well as other plant equipment and discharges water through separate flumes for each unit. At peak capacity, water is circulated at a maximum rate of 22 m<sup>3</sup>/s (783 ft<sup>3</sup>/s) through each condenser and then returned to the lake. The water withdrawn for these systems flows first through the intake structure to the forebay, then to the condensers and other equipment. Auxiliary water systems include service water and fire protection.

In May 2001, the intake structure was reconfigured to resolve a bird mortality issue. The modified structure stands approximately 3.4 m (11 ft) above the lake floor, has an outside diameter of about 33 m (110 ft), and has an inside chamber with a diameter of 18 m (60 ft). The top is covered with a steel superstructure and a trash rack made of high-density polyethylene having approximately 18-cm by 45-cm (7-in. by 18-in.) openings (NMC 2001). Water enters the chamber through the trash rack as well as through void spaces around the limestone blocks and through 76-cm (30-in.) pipes that penetrate the blocks in a ring about 1.5 m (5 ft) above the lakebed. The pipes are covered with 3-cm by 5-cm (1.2-in. by 2-in.) bar gratings to prevent debris and large fish from entering the intake system.

#### **3.2 Terrestrial Resources**

The PBNP site is located on 510 ha (1260 ac) on the shore of Lake Michigan (NMC 2004). The site and surrounding area consist primarily of agricultural land and forest. Approximately 42 ha (104 ac) of the property are devoted to industrial use. The site consists of land leased for farming and woodlots up to 19 ha (47 ac) in size. The woodlots occupy a total of about 40 ha (100 ac), making up about 9 percent of the PBNP property. The plant communities here include a variety of trees such as aspen (*Populus tremuloides*), blue beech (*Fagus grandifolia*), hemlock (*Tsuga canadensis*), and maple (*Acer*) species forming the overstory (AEC 1972). The woodlots are maintained in a natural state and provide food, cover, and nesting sites for a variety of wildlife.

The terrestrial wildlife that occurs at PBNP site and surrounding areas is typical of that found in similar habitats throughout Wisconsin (AEC 1972). Common mammals include white-tailed deer (*Odocoileus virginianus*), cottontail rabbit (*Sylvilagus floridanus*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), gray squirrel (*Sciurus carolinensis*), eastern chipmunk (*Tamias striatus*), and masked shrew (*Sorex cinereus*). Upland birds that occur on the property include ring-necked pheasant (*Phasianus colchicus*), wild turkey (*Meleagris gallopavo*), American goldfinch (*Carduelis tristis*), eastern bluebird (*Sialia sialia*), blue jay (*Cyanocitta cristata*), and eastern meadowlark (*Sturnella magna*). Several waterfowl also occur here, including the Canada goose (*Branta canadensis*) and the wood duck (*Aix sponsa*). Additionally, the site is occupied by several common amphibians and reptiles such as the tiger salamander (*Ambystoma tigrinum*), northern leopard frog (*Rana pipiens*), American toad (*Bufo americanus*), and the painted turtle (*Chrysemys picta*).

The PBNP property contains about 3 km (2 mi) of Lake Michigan shoreline. The shoreline here consists of mostly narrow, bare beaches ranging from 6 m to 15 m (20 ft to 50 ft) wide that extend from the water's edge to low bluffs created by years of erosion. Riprap has been placed along the edges of the bluffs to reduce erosion, which had been occurring at the rate of 0.8 m to 1.5 m (2.5 ft to 5 ft) per year (AEC 1972). The shoreline on the PBNP property does not contain any sand dunes.

In its Environmental Report, the applicant identified three 345-kilovolt (kV) transmission lines that connect PBNP to the power grid (Figure 2) (NMC 2004). A fourth 345-kV line connects the Kewaunee Nuclear Power Plant to the substation at PBNP. Currently the four lines are owned and maintained by the American Transmission Company (ATC). The transmission lines are described below and each corridor's characteristics are shown in Table 1.

**Table 1.** PBNP Transmission Line Rights-of-Way

Substation	Rights-of-Way	Number of Lines	kV	Approximate Length		Approximate Width		Approximate Area	
				km	(mi)	m	(ft)	ha	(ac)
Granville	L-111	1	345	32.0	20.0	67	220	210	530
Arcadian	L-121	1	345	29.0	18.0	67	220	190	480
North Appleton	L-151	1	345	47.5	29.7	67	220	320	790
PBNP	Q-303	1	345	9.0	5.6	67	220	61	150

Source: NMC 2004

Each ROW is 67 m (220 ft) wide. Figure 2 shows the transmission system for PBNP. For the specific purpose of connecting PBNP to the power grid, ATC has a total of 118 km (73.3 mi) of transmission lines occupying approximately 791 ha (1955 ac) of easement (NMC 2004). The ROWs pass through land that is primarily rolling hills covered in forest and farmland. These ROWs pass through rural areas with low population densities. The lines cross numerous State and Federal highways, including Wisconsin Highways 42 and 147 and Interstate 43.

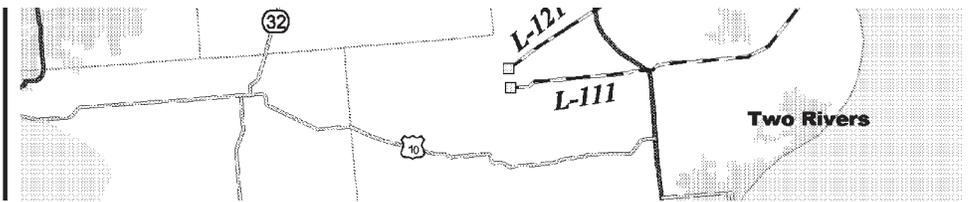
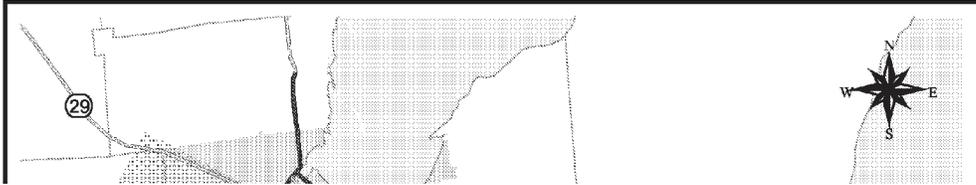


Figure 2. PBNP transmission lines.

ROWs that pass through farmland generally continue to be managed as such. ATC plans to maintain these lines indefinitely as they are an integral part of the larger transmission system. These transmission lines are expected to remain a permanent part of the regional transmission system after decommissioning of PBNP.

ATC implements the ROW inspection and maintenance program for PBNP-associated transmission lines (ATC 2004). ATC manages transmission line ROWs using a wire zone/border zone concept. The wire zone is directly below the transmission lines and vegetation is primarily low growing forbs and grasses. The border zone extends from the wire zone to the edge of the ROW and woody species less than 5 m (15 ft) tall provide a transition to the surrounding habitats. Vegetation management activities may include tractor mowing, manual chainsaw clearing, and application of herbicides by a state-licensed, commercial applicator. Trimming is usually performed every 5 to 7 years, depending on the growth rates of vegetation in a given area. ATC recognizes that transmission line ROWs provide ancillary compatible uses including wildlife habitat, biodiversity corridors, recreation, and aesthetics. ATC practices a vegetation management program that utilizes physical, chemical, and biological treatments to promote stable, diverse, low-growing plant communities in a way that promotes wildlife habitat and reduces environmental impacts.

#### **4.0 Assessment of Federally-Listed Species**

There are no Federally-listed threatened or endangered aquatic species known to occur at the PBNP site or on habitat crossed by the associated transmission line ROWs (NMC 2004). There are four Federally-listed threatened or endangered terrestrial species that have been identified by the staff as potentially occurring in the vicinity of PBNP and its associated transmission lines. Three species have been recorded in Manitowoc County: the bald eagle (*Haliaeetus leucocephalus*), the piping plover (*Charadrius melodus*), and the dune or Pitcher's thistle (*Cirsium pitcheri*) (WDNR 2004). The dwarf lake iris (*Iris lacustris*), also a Federally-listed species, has been recorded in Brown County, which is traversed by a PBNP transmission line. Table 2 presents those Federally and State-listed species that have been recorded in Brown and Manitowoc Counties and could potentially occur on the PBNP site or transmission line ROWs, if suitable habitat were available.

**Table 2.** Terrestrial Species Listed as Endangered or Threatened by the FWS and that Occur or Potentially Occur Within the PBNP Site or the Associated Transmission Line Rights-of-Way

Scientific Name	Common Name	Federal Status <sup>(a)</sup>
<b>Birds</b>		
<i>Haliaeetus leucocephalus</i>	bald eagle	T
<i>Charadrius melodus</i>	piping plover	E
<b>Plants</b>		
<i>Cirsium pitcheri</i>	dune (or Pitcher's) thistle	T
<i>Iris lacustris</i>	dwarf lake iris	T

(a) E = endangered, T = threatened. Sources: FWS 2004b.

### **Bald Eagle (*Haliaeetus leucocephalus*)**

The bald eagle is Federally-listed as threatened in the lower 48 states (FWS 2004b). This species is a large raptor that is found along the coastline around lakes and rivers. Eagles generally nest in tall trees or on cliff faces near water and away from human disturbance. No bald eagle nesting occurs on the plant site and none have been observed to forage in the vicinity of the plant (We Energies 2004a). The transmission lines extend for the most part to the west, away from Lake Michigan and bald eagle foraging habitat.

For these reasons, the staff has determined that continued operation of PBNP over the 20-year license renewal period may affect, but is not likely to adversely affect the bald eagle.

### **Piping Plover (*Charadrius melodus*)**

The piping plover is Federally-listed as endangered in the Great Lakes region (FWS 2004b). Piping plovers breed only in three North American geographic regions: the Atlantic coast, the Northern Great Plains, and the Great Lakes. Great Lakes piping plovers breed along sparsely vegetated beaches, cobble pans, and sand spits along the shoreline. The FWS defines their essential breeding habitat as greater than 7 m (23 ft) wide beach, greater than 0.4 km (0.25 mi) of shoreline length, dune area of 1.95 ha (4.82 ac), patches of cobble or degree cover, and areas of beach with up to 50 percent of vegetation cover (FWS 2004b). The stretch of shoreline nearest to PBNP that is designated as critical breeding habitat is at Point Beach State Forest, approximately 5 km (3 mi) to the southeast, where about 13 km (8 mi) of shoreline have been designated as suitable, although there are no records of breeding at this location (FWS 2004c). The only breeding plovers known within Wisconsin in recent years are along the shores of Lake Superior (WDNR 2004).

We Energies conducted an initial piping plover suitability assessment of their Lake Michigan property on October 1, 2004. The assessment concluded that portions of the shoreline appear to be suitable nesting habitat (We Energies 2004b). Based on this result, a series of recommendations was presented:

- No measures should be taken to enhance habitat suitability,
- A piping plover breeding census should be conducted annually between June 1 and June 15 using the International Piping Plover Breeding Census guidelines, and an individual census report should be completed each year,
- The FWS Green Bay Field Office and the Wisconsin Department of Natural Resources Bureau of Endangered Resources should be contacted on the day that nesting piping plovers are discovered on the site, and
- We Energies will collaborate with the above-mentioned agency staffs to determine beach access, nesting habitat protection, and monitoring requirements.

In correspondence dated November 5, 2004, We Energies agreed to implement these recommendations (We Energies 2004c). In addition, NMC restricts unauthorized public access to the Lake Michigan beach area of the PBNP site with a line of boulders at the north and south boundaries, buoy markers off the shoreline to mark restricted waters, and twenty-four hour security personnel surveillance. For these reasons, the staff has determined that continued operation of PBNP over the 20-year license renewal period may affect, but is not likely to adversely affect the piping plover.

#### **Dune or Pitcher's Thistle (*Cirsium pitcheri*)**

The dune or Pitcher's thistle is Federally-listed as threatened over its entire range (FWS 2004b). The preferred site for the dune or Pitcher's thistle is an area between a sandy beach and a fully vegetated dune next to the shorelines of the Great Lakes (WDNR 2004). The primary threats to the species are disturbance through recreational activities (ATV use, trampling, etc.) and overstory encroachment (NatureServe 2004). Although no suitable habitat for this species has been identified at the PBNP site or along associated transmission line corridors, beach habitat is protected. NMC restricts unauthorized public access to the Lake Michigan beach area of the PBNP site with a line of boulders at the north and south boundaries, buoy markers off the shoreline to mark restricted waters, and twenty-four hour security personnel surveillance.

For these reasons, the staff has determined that continued operation of PBNP over the 20-year license renewal period will have no effect on the Pitcher's thistle.

#### **Dwarf Lake Iris (*Iris lacustris*)**

The dwarf lake iris is Federally-listed as threatened over its entire range (FWS 2004b). The dwarf lake iris is endemic to the northern shores of Lake Michigan and Lake Huron. This species is found in association with the Niagara Escarpment, a limestone formation that extends from the Door Peninsula to the north of the PBNP site through Michigan and Ontario to New York. In Wisconsin the dwarf lake iris is found on the northwestern shore of Lake Michigan and the eastern shore of Green Bay in Brown and Door counties (WDNR 2004). The primary threat to this species is habitat degradation due to overstory encroachment (NatureServe 2004). This species apparently thrives with frequent natural disturbance and does not appear to be detrimentally impacted by human disturbance and is reported to do well in old-field conditions (NatureServe 2004). Although this species has not been recorded at the PBNP site or along associated transmission line corridors, potential beach habitat is protected. NMC restricts unauthorized public access to the Lake Michigan beach area of the PBNP site with a line of boulders at the north and south boundaries, buoy markers off the shoreline to mark restricted waters, and twenty-four hour security personnel surveillance.

For these reasons, the staff has determined that continued operation of PBNP over the 20-year license renewal period will have no effect on the dwarf lake iris.

## **5.0 Conclusions**

The NRC staff has evaluated the potential impacts of an additional 20 years of continued PBNP operation on four species that are Federally-listed as threatened or endangered and have the potential to occur at the PBNP site or along its associated transmission line corridors. Although none of the four species are known to occur at the site or along transmission line corridors, NMC and ATC have developed and implemented procedures to protect wildlife and habitat.

The staff has determined that license renewal for PBNP may affect, but is not likely to adversely affect the bald eagle and the piping plover, and will have no effect on the dwarf lake iris and the dune or Pitcher's thistle.

## **6.0 References**

10 CFR Part 51. Code of Federal Regulations, Title 10, *Energy*, Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions."

10 CFR Part 54. Code of Federal Regulations, Title 10, *Energy*, Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants."

Atomic Energy Act of 1954. 42 United States Code (USC) 2011, et seq.

American Transmission Company (ATC). 2004. *Routine Right-of-Way Maintenance*. Accessed at: [http://www.atcllc.com/projects\\_rightofway.shtml](http://www.atcllc.com/projects_rightofway.shtml). on November 8, 2004.

NatureServe 2004. *NatureServe Explorer: an Online Encyclopedia of Life*. Version 3.1, NatureServe, Arlington, Virginia. Accessed at <http://www.natureserve.org> on November 9, 2004.

Nuclear Management Company, LLC (NMC). 2004. *Point Beach Nuclear Plant Operating License Renewal Application Environmental Report*. Mishicot, Wisconsin. February 2004.

U.S. Atomic Energy Commission (AEC). 1972. *Final Environmental Statement Related to Operation of Point Beach Nuclear Plant Units 1 and 2*, Docket Nos. 50-266 and 50-301. Directorate of Licensing. Washington, DC.

U.S. Fish and Wildlife Service (FWS). 2004a. Letter from U.S. Fish and Wildlife Service to Nuclear Regulatory Commission. Subject: Response to the May 5, 2004 NRC staff letter requesting information regarding threatened and endangered species in the vicinity of the PBNP. (August 5, 2004).

U.S. Fish and Wildlife Service (FWS). 2004b. *Species Information, Threatened and Endangered Animals and Plants website*. Accessed at <http://endangered.fws.gov/wildlife.html> on August 2, 2004 through September 23, 2004.

U.S. Fish and Wildlife Service (FWS). 2004c. *All About Piping Plovers*. Accessed at <http://plover.fws.gov/facts.html> on November 9, 2004.

U.S. Nuclear Regulatory Commission (NRC). 2004. Letter from Nuclear Regulatory Commission to U.S. Fish and Wildlife Service. Subject: Request for information regarding threatened and endangered species in the vicinity of PBNP. (May 5, 2004).

We Energies. 2004a. Letter from We Energies Senior Terrestrial Ecologist, Dr. N. Cutright, to Nuclear Management Company Vice President. Subject: Response to U.S. Fish and Wildlife Service Letter. (May 12, 2004).

We Energies. 2004b. Piping plover Habitat on We Energies Property Near the Point Beach Nuclear Plant. Performed by Dr. N. Cutright, (October 15, 2004).

We Energies. 2004c. Letter from We Energies to Nuclear Regulatory Commission. Subject: Implementation of Piping Plover Habitat Survey Recommendations. (November 5, 2004).

Wisconsin Department of Natural Resources (WDNR). 2004. *Wisconsin State Threatened and Endangered Species website*. Accessed at: [http://www.dnr.state.wi.us/org/land/er/working\\_list/taxalists/TandE.asp](http://www.dnr.state.wi.us/org/land/er/working_list/taxalists/TandE.asp) on May 5, 2004.