



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
One Blackburn Drive  
Gloucester, MA 01930-2298

JAN 12 2005

Pao-Tsin Kuo  
Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation  
US Nuclear Regulatory Commission  
MS T-11 F1  
Washington, DC 20555

Re: Millstone Power Station Units 2 and 3 license renewal

Dear Mr. Kuo,

This is in response to your letter dated November 9, 2004 regarding the proposed renewal of the operating licenses for Units 2 and 3 of the Millstone Power Station for a period of 20 years. The Millstone Power Station is located on the north shore of Long Island Sound in the town of Waterford, CT. Included with your letter was a Biological Assessment (BA) which evaluates whether the proposed license renewal of the Millstone Power Station would have an adverse affect on listed species in Long Island Sound. The U.S. Nuclear Regulatory Commission (NRC) has made a preliminary determination that the proposed action will have no effect on listed species under the jurisdiction of the National Marine Fisheries Service (NOAA Fisheries).

In a letter dated September 21, 2004, NOAA Fisheries provided the NRC with a list of federally threatened and endangered species that are known to be seasonally present in the waters of Long Island Sound. Four species of federally threatened or endangered sea turtles may be found seasonally in the waters of Long Island Sound. Sea turtles are expected to be in the vicinity of the project area in warmer months, typically from May 1 to November 15. The sea turtles in Long Island waters are typically small juveniles with the most abundant being the federally threatened loggerhead (*Caretta caretta*) followed by the federally endangered Kemp's ridley (*Lepidochelys kempi*). The waters of Long Island Sound have also been found to be warm enough to support federally endangered green sea turtles (*Chelonia mydas*) from June through October. The three species of chelonid turtles found in the Northeast remain very briefly in open ocean waters, spending most of their time during the summer months in harbors and estuarine waters, such as those found in



Long Island Sound. Federally endangered leatherback sea turtles (*Dermochelys coriacea*) may be found in the waters of Long Island Sound during the warmer months as well.

Three species of federally endangered whales, North Atlantic right whales (*Eubalaena glacialis*), humpback whales (*Megaptera novaeangliae*), and fin whales (*Balaenoptera physalus*), may also be found seasonally in Northeast waters, although it rare that these species will travel into Long Island Sound. Federally endangered shortnose sturgeon (*Acipenser brevirostrum*) are know to occur in the Connecticut River which flows into Long Island Sound approximately 10 miles east of the Millstone site; however, shortnose sturgeon are not known to participate in coastal migrations and no shortnose sturgeon are likely to occur near the project site.

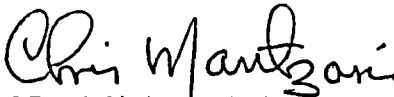
The entrainment and impingement of sea turtles has been documented at several nuclear power plants on the East Coast. The Millstone system withdraws water from Long Island Sound through intakes. Water withdrawn from Long Island Sound is filtered through trash and debris screens at a rate of 0.2 m/s<sup>2</sup>. The debris screens are an effective mechanism to reduce the likelihood that aquatic organisms, including turtles, will be impinged or entrained on the intakes. The Millstone operators have been monitoring the intakes for over 20 years and no sea turtles have been documented to be impinged or entrained during that time. Based on the size of the screens, the rate of intake and the lack of sea turtle impingements or entrainments in the past, it is unlikely that sea turtles will be affected by the intakes through the term of the new license.

Water taken into the plant is pumped through a turbine condenser cooling system which causes the water temperature to increase. The heated water then surface discharges through a former granite quarry and flows out two cuts excavated from the bedrock into Long Island Sound. At full discharge flow the water temperature will have increased 9 to 14<sup>0</sup> C from its intake temperature. The National Pollutant Discharge Elimination System (NPDES) permit for the Millstone Power Station limits the discharge temperature to 40<sup>0</sup> C and limits the maximum increase in water temperature from intake to discharge to 18<sup>0</sup> C. Based on the volume of water in the discharge area, the ability for sea turtles to avoid the area of heated water, and the known tolerance of sea turtles to tropical water temperatures, it is unlikely that sea turtles will be affected by the discharge of heated water into Long Island Sound.

Based on the analysis above, NOAA Fisheries is able to concur with the NRC's determination that this project will have no effect on shortnose sturgeon, fin whales, humpback whales, or right whales. NOAA Fisheries is not able to concur with a no effect determination for the four species of sea turtles; however, based on the assessment above, it has been determined that the proposed action is not likely to adversely affect sea turtles. Therefore, no further consultation pursuant to section 7 of the ESA is required. Should project plans change or new information become

available that changes the basis for this determination, consultation should be reinitiated. Should you have any questions about these comments, please contact Sara McNulty at (978) 281-9328 ext. 6520.

Sincerely,

  
for Patricia A. Kurkul  
Regional Administrator

Cc: Scida, F/NER3  
Williams, GCNE  
Rusanowsky, F/NER4

File code: Sec. 7, NRC Millstone Power Station