

May 16, 2006

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SUBJECT: RESPONSE TO LETTER REGARDING MILLSTONE POWER STATION,  
UNITS 2 AND 3 ESSENTIAL FISH HABITAT REQUIREMENTS  
(TAC NO. MC1827 AND MC1828)

Dear Mr. Colosi:

We received your letter dated March 30, 2006, concerning the license renewal application for Millstone Power Station, Units 2 and 3 (Millstone), submitted by Dominion Nuclear Connecticut, Inc. (Dominion). During a telephone conference call with the U.S. Nuclear Regulatory Commission (NRC) staff on June 15, 2004, Mr. Michael Ludwig of your staff did mention the issue of essential fish habitat. The NRC staff and consultants were concentrating on evaluating the impact of Millstone on winter flounder and did not recognize the importance of Mr. Ludwig's comments about essential fish habitat. At the time of the June 15, 2004, telephone call, the NRC staff was not familiar with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act. During our review of the application for license renewal of the Brunswick Steam Electric Plant at the mouth of the Cape Fear River in North Carolina, we received a letter from the Southeast Region of National Marine Fisheries Service (NMFS) informing us of our potential essential fish habitat responsibilities. By the time we finished reviewing the Magnuson-Stevens Act and the documentation on the NMFS website, the NRC had completed its review of the Millstone application and had issued the renewed license. We apologize for our oversight and thank you for your comments.

The NRC staff did evaluate the impacts of license renewal at Millstone on fish populations in Long Island Sound, especially winter flounder. We consulted with the EPA Region I office and the Connecticut Department of Environmental Protection (CTDEP) during the review - both the Bureau of Water Management, the bureau responsible for issuance of National Pollutant Discharge Elimination System (NPDES) permits, and the fishery biologists in the Fisheries Division of the Bureau of Natural Resources. At that time, we were not aware of our responsibilities under the Act. The final Supplemental Environmental Impact Statement (SEIS) (NUREG-1437, Supplement 22) was published in July 2005. A copy of the final SEIS was sent to the Region I office of NMFS; however, we should have sent a copy of the final SEIS directly to Mr. Ludwig since we consulted with him. After we received your letter, we called Mr. Ludwig to apologize, and we sent him a copy of the final SEIS.

We concluded that the impact of entrainment on winter flounder larvae at Millstone is expected to be moderate during the license renewal period and that any mitigation measures

implemented as a result of negotiations between Dominion and CTDEP in the renewal process for the NPDES permit for Millstone would reduce that impact. We also concluded that the impacts of impingement, entrainment, and heat shock on other species such as American lobster, tautog, anchovy, Atlantic menhaden, and eelgrass, are expected to be small.

As you know, CTDEP is responsible for issuance of NPDES permits and the implementation of Section 316 (b) of the Federal Water Pollution Control Act of 1972 (Clean Water Act) in Connecticut. The NRC can not impose requirements in this area. During our license renewal review, both Dominion and CTDEP discussed with us the various potential mitigation measures under consideration at Millstone. We discussed some information about those potential mitigation measures in the final SEIS. Based on conversations with officials at CTDEP and Dominion since the SEIS was issued, we understand that CTDEP and Dominion are still discussing the potential mitigation measures such as variable flow technology modifications on the circulating water intake system at Millstone. Currently, Dominion schedules refueling outages for Millstone during April-May to the extent practicable to reduce the amount of winter flounder larvae entrained by the plant.

In your letter, you proposed two essential fish habitat conservation recommendations: (1) require the applicant to assess and implement environmentally friendly alternative cooling strategies and (2) require the applicant to submit a complete impact avoidance/minimization/mitigation plan for this project.

Your first recommendation is to require the applicant to assess and implement environmentally friendly alternative cooling strategies. The NRC's environmental responsibilities result from the implementation of the National Environmental Policy Act (NEPA) of 1969. NEPA requires the NRC to examine and disclose the potential environmental impacts in advance of taking certain actions. The examination of potential impacts is designed to be fair and comprehensive. NEPA also requires the consideration of mitigation of potential impacts. Under the provisions of the Clean Water Act, regulation of impacts related to the operation of steam-electric generating stations that employ cooling water withdrawn from and discharged to navigable waters is the responsibility of the Environmental Protection Agency (EPA). EPA has the authority and has delegated the responsibility for the regulation of the withdrawal and discharge of cooling waters used by steam-electric utility industry in the State of Connecticut to the CTDEP. This regulatory oversight is administered under the NPDES permitting system. An Atomic Safety and Licensing Appeal Board Case regarding the application for a construction permit for a nuclear power plant called, "Yellow Creek," which was never built, determined that EPA has sole jurisdiction over the regulation of water quality with respect to the withdrawal and discharge of waters for nuclear power stations, and the NRC is prohibited from placing any restrictions or requirements upon the licensees of these facilities with regard to water quality [*Tennessee Valley Authority* (Yellow Creek Nuclear Plant, Units 1 and 2), ALAB-515, 8 NRC 702, 712-13 (1978)]. However, the NRC is still required to execute its NEPA responsibilities to examine and disclose potential impacts related to its actions as well as consider alternatives to the proposed action. The NRC provided such analyses in the SEIS for Millstone. The NRC presented a fair and balanced assessment of impacts to fish populations related to continued operation of the Millstone facility. We identified a number of potential mitigative strategies related to reducing entrainment losses attributable to Millstone operation. We also recommended that before any additional effort be spent on the development of any mitigation, a thorough understanding of the impact contribution by the operation of the plant needs to be developed. The NRC staff determined

that the plant-related impacts to fish populations, other than the winter flounder, are small and not detectably affecting the fish populations. With respect to winter flounder, the staff found that until we know what is limiting recruitment of juveniles, it is premature to propose additional mitigation at the station. Operation of the Millstone power station is one of several factors contributing to the decline of the Southern NewEngland/Mid-Atlantic winter flounder stock; other causal factors include overfishing, environmental changes due to a regional increase in water temperature, increased predation, and habitat degradation associated with contaminant or nutrient inputs into the Niantic River estuary.

On July 9, 2004, EPA published a final rule that established regulations containing requirements for cooling water intake structures at Phase II existing facilities. Millstone is a Phase II existing facility. These regulations, which are implemented through the NPDES permitting system, are designed to minimize the adverse environmental impacts associated with the continued operation of the intake and cooling systems. Licensees are required to demonstrate compliance with the Phase II performance standards in accordance with the provisions of the new rule. Licensees may be required to alter the design or operation of the intake structure, redesign the cooling system, modify station operation, or take other mitigative measures as part of the NPDES permit renewal process. As stated above, EPA delegated responsibility for the NPDES permitting process to the CTDEP. CTDEP is the appropriate agency to implement any requirements for alternative cooling strategies based on environmental considerations. However, as stated above, unless we understand the relative contribution of the impact related to continued operation of the Millstone facility on the winter flounder population, the requirement for implementation of any additional mitigation may be premature.

Your second conservation recommendation is that the NRC require the licensee to submit a complete impact avoidance/minimization/mitigation plan for Millstone. The NRC staff did not recommend that the licensee undertake any additional mitigation measures to minimize cooling water intake impacts for license renewal. The staff determined that the impact of continued operation of the facility on fish populations, other than the winter flounder, was small and undetectable. The staff further concluded that there is insufficient information at this time to precisely quantify the impact of the facility on winter flounder, and that a better understanding of the factors affecting recruitment of juveniles is needed.

The NRC staff believes that any requirement for an impact avoidance/minimization/mitigation plan for Millstone is under the purview of the EPA and CTDEP. EPA's Phase II regulations establish specific performance standards related to the operation of steam-electric station cooling systems. Should the licensee choose not to convert to closed-cycle cooling they would be required to conduct a comprehensive demonstration study (CDS) to demonstrate that they conform to these standards as part of the NPDES permit renewal process administered by the CTDEP. There are a number of ways in which a licensee can comply with the rule including modifying the intake structure and station operation to reduce losses to aquatic biota. Changes to plant operation or design would be detailed in the CDS. The CDS would be reviewed by the CTDEP, and any additional mitigation would be a requirement of the NPDES permit issued by the CTDEP. In summary, the NRC staff does not believe it has the authority to require an impact avoidance/minimization/mitigation plan for Millstone and, therefore, does not intend to require implementation of such a plan.

Again, we apologize for our oversight and thank you for your comments. We look forward to consulting with your staff regarding essential fish habitat during the review of upcoming license renewal applications in the NMFS's Northeast Regional Office.

**/RA PTKuo for/**

Frank Gillespie, Director  
License Renewal Division  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission

Docket No.: 50-336, 50-423

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Again, we apologize for our oversight and thank you for your comments. We look forward to consulting with your staff regarding essential fish habitat during the review of upcoming license renewal applications in the NMFS's Northeast Regional Office.

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Letter to: Peter Colosi from Frank Gillespie, dated: May 16, 2006

SUBJECT: RESPONSE TO LETTER REGARDING MILLSTONE POWER STATION,  
UNITS 2 AND 3 (TAC NO. MC1827 AND MC1828) ESSENTIAL FISH HABITAT  
REQUIREMENTS

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