



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 31 2013

Mr. John K. Bullard
Northeast Regional Administrator
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930-2276

SUBJECT: EARTHRISE LAW CENTER'S REQUEST FOR NRC TO REINITIATE
SECTION 7 CONSULTATION WITH THE NATIONAL MARINE FISHERIES
SERVICE FOR CONTINUED OPERATION OF PILGRIM NUCLEAR POWER
STATION

Dear Mr. Bullard:

The U.S. Nuclear Regulatory Commission (NRC) received a letter dated March 22, 2013,¹ from Earthrise Law Center (Earthrise), on behalf of Jones River Watershed Association, jointly addressed to the NRC and the National Marine Fisheries Service (NMFS) that requested the NRC and NMFS to reinstate consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA), for the continued operation of Pilgrim Nuclear Power Station (Pilgrim) in Plymouth, Massachusetts. The NRC staff has reviewed Earthrise's letter and concludes that the letter does not present information that warrants reinstatement of section 7 consultation. This letter describes the NRC staff's rationale for this conclusion.

Background

From 2006 through 2012, the NRC and NMFS engaged in an informal section 7 consultation for continued operation of Pilgrim under the terms of a renewed operating license. NMFS concluded consultation with a determination of not likely to adversely affect (NLAA) in a letter to NRC dated May 17, 2012.² In that letter, NMFS found that "continued operation of Pilgrim under the terms of a renewed operating license is not likely to adversely affect any listed species under NMFS jurisdiction." NMFS also concluded that "continued operation of Pilgrim will have no effect on right whale critical habitat." Thus, NMFS determined that formal consultation and the issuance of a biological opinion would not be necessary, and consultation was concluded at that time in accordance with Title 50 of the *Code of Federal Regulations* (CFR) 402.13(a).

Section 7 Consultation Reinitiation Criteria

The ESA regulations do not include criteria for reinitiating informal consultation. However, 50 CFR 402.16 lists four instances in which Federal agencies should reinitiate formal consultation following the issuance of a biological opinion. As a conservative measure, the NRC staff has considered each of these instances to determine if the information contained in Earthrise's March 2013 letter could necessitate NRC to reinitiate section 7 consultation with NMFS regarding Federally listed species potentially affected by continued operation of Pilgrim.

1. The amount or extent of taking specified in the incidental take statement is exceeded. (50 CFR 402.16(a))

This circumstance does not apply because NMFS did not issue a biological opinion containing an incidental take statement for the continued operation of Pilgrim.

2. New information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered. (50 CFR 402.16(b))

Earthrise's letter states that the sighting of a North Atlantic right whale (named "Wart" by researchers) and her calf in Cape Cod Bay within the exclusion zone of Pilgrim in January 2013 constitutes new information that reveals effects of continued operation of Pilgrim on North Atlantic right whales that was not previously considered during the 2006-2012 consultation. The NRC staff considered the information concerning Wart and her calf in Earthrise's letter as well as available scientific literature on the occurrence of cow/calf pairs in Cape Cod Bay. The NRC staff concludes that this information does not reveal effects that were not previously considered.

NMFS's NLAA determination (p. 3) states that North Atlantic right whales "occur in Cape Cod Bay nearly year round; however, the vast majority of sightings occur from January–April." NMFS notes that from 1990 through 2005, the National Oceanic and Atmospheric Administration's Northeast Fisheries Science Center has six siting records (five definite, one probable) of 12 right whales within approximately 2 miles of Pilgrim. Thus, the mere occurrence of North Atlantic right whales near Pilgrim, especially in January, is not unusual and does not constitute new information.

The occurrence of a cow/calf pair in Cape Cod Bay is also not unprecedented. NMFS's *Recovery Plan for the North Atlantic Right Whale* (p. 1C-2) notes that "a number of right whales, including cow/calf pairs, resided in Cape Cod Bay and Massachusetts Bays during the summers of 1986 and 1987."³ Patrician et al. (2009) notes that Cape Cod Bay has been hypothesized to be an alternative calving ground by several researchers.⁴ Watkins and Schevill (1982) and Schevill et al. (1986) inferred that at least two calves had been born in Cape Cod Bay as evidenced by sightings of reproductively mature females without calves followed by resightings of the same females within a week accompanied by extremely small calves.^{5,6} Brown et al. (2001) notes that 25 percent of all reproductively active females (i.e., females that have been sighted with calves) have never been seen in the southeastern U.S. calving grounds, which indicates that calving may be occurring in other areas.⁷ These studies indicate that the presence of a cow/calf pair near Pilgrim is not new information.

In its letter, Earthrise also indicates that the impact of Pilgrim's thermal plume is an effect that was not previously considered given the recent siting of Wart and her calf. However, NMFS addresses the effects of the thermal plume on North Atlantic right whales in its NLAA determination (p. 17-18) assuming a thermal tolerance of up to 21.8°C. This thermal tolerance is based on the maximum temperature at which sightings have been recorded. NRC searched available scientific literature for information that might indicate that calves have a different thermal tolerance than adults. Kenney (2004) states that in calving grounds off the coasts of Georgia and northern Florida, right whales select cooler water with most sightings occurring in waters below 20°C.⁸ Kenney (2002) speculates that the slightly cooler water preference for whales within calving grounds may be a means of avoiding shark predation on newborn calves, though it could also be a strategy for avoiding heat stress.⁹ Assuming this slightly reduced thermal tolerance of 20.0°C, the effects of thermal discharge

on calves remains bounded by NMFS's thermal tolerance analysis in its NLAA determination. The bottom area and surface area surrounding Pilgrim's thermal plume that North Atlantic right whales would be expected to avoid would remain less than 0.13 acres and less than 0.5 acres, respectively. Even though cow/calf pairs spend more time at or near the surface (Baumgartner and Mate 2003),¹⁰ cows and calves would be expected to avoid the heated water by swimming under or around it without disruption to essential behaviors that the species may be carrying out in the action area. Thus, the NRC staff concludes that the Earthrise letter does not contain new information that reveals effects of continued operation of Pilgrim that may affect North Atlantic right whales in a manner or to an extent not previously considered.

3. The identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in a biological opinion. (50 CFR 402.16(c))

The identified action (i.e., continued operation of Pilgrim) has not been modified since the NRC and NMFS concluded consultation in May 2012. NMFS's NLAA determination considers the continued operations of Pilgrim under the terms of the renewed operating license and the currently-in-effect National Pollutant Discharge Elimination System (NPDES) permit, which the U.S. Environmental Protection Agency (EPA) Region 1 issued in April 1991 and subsequently modified in August 1994. The permit expired in 1996. However, the permit remains in effect until EPA Region 1 and the Commonwealth of Massachusetts review the NMFS permit renewal application and decide whether to issue a new permit. Thus, no changes to Pilgrim operations have occurred that would necessitate reinitiated consultation.

The NRC understands that, if in the future, EPA issues a revised NPDES permit for Pilgrim, reinitiation of consultation, involving both EPA and NRC, is likely to be necessary. Additionally, the NRC understands that if EPA issues revised Clean Water Act (CWA) 316(b) regulations that result in modifications to the Pilgrim cooling water intake or discharge system, reinitiation of consultation is likely to be necessary.

4. A new species is listed or critical habitat designated that may be affected by the identified action. (50 CFR 402.16(d))

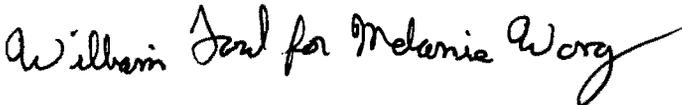
This circumstance does not apply because NMFS had already listed the North Atlantic right whale, as well as critical habitat for the species, at the time the NRC and NMFS engaged in section 7 consultation. The NRC staff understands that if in the future, NMFS revises the listing status or critical habitat designations for this species, NRC may be required to reinitiate consultation at that time. NRC staff biologists monitor ESA listings in the *Federal Register* as part of their regular responsibilities and would work to reinitiate such a consultation expeditiously in such an instance.

Conclusion

For the reasons stated in this letter, the NRC staff does not believe that reinitiation of consultation for continued operations of Pilgrim is appropriate at this time. Please contact Ms. Briana Grange, Biologist, of my staff with any additional information you might have regarding the information contained in this letter. You can reach her at 301-415-1042 or by e-mail at Briana.Grange@nrc.gov.

I have also forwarded a copy of this letter to Ms. Julie Crocker of your office. Ms. Crocker is NRC's main point of contact for ESA consultation at Pilgrim.

Sincerely,

A handwritten signature in black ink that reads "William J. Bullard for Melanie C. Wong". The signature is written in a cursive style.

Melanie C. Wong, Chief
Environmental Review and
Guidance Update Branch
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-293

References

- ¹ Letter from K. Cassidy, Earthrise Law Center, on behalf of Jones River Watershed Association, to J. Bullard, NMFS, and A. Hull, NRC. Subject: Request to reinstate ESA section 7 consultation related to operation of the Pilgrim Nuclear Power Station in Plymouth, MA. March 22, 2013. ADAMS No. ML13094A124.
- ² Letter from D. Morris, Acting Regional Administrator, NMFS, to A. Imboden, NRC. Subject: NLAA Determination for Pilgrim Nuclear Power Station. May 17, 2012. ADAMS No. ML12145A072.
- ³ [NMFS] National Marine Fisheries Service. 2004. Recovery Plan for the North Atlantic Right Whale (*Eubalaena glacialis*). Revised August 2004. 137 p. Available at <http://ecos.fws.gov/docs/recovery_plan/whale_right_northatlantic.pdf> (accessed 25 April 2013).
- ⁴ Patrician MR, Biedron IS, Esch HC, Wenzel FW, Cooper LA, Glass AH, Baumgartner MF. 2009. Evidence of a North Atlantic right whale calf (*Eubalaena glacialis*) born in northeastern U.S. waters. *Marine Mammal Science* 25(2):462-477.
- ⁵ Watkins WA, Schevill WE. 1982. Observations of right whales, *Eubalaena glacialis*, in Cape Cod waters. *Fishery Bulletin* 80:875-880.
- ⁶ Schevill WE, Watkins WA, Moore KE. 1986. Status of *Eubalaena glacialis* off Cape Cod. Report of the International Whaling Commission (Special Issue 10):79-82.
- ⁷ Brown MW, Brault S, Hamilton PK, Kenney RD, Knowlton, Marx MK, Mayo CA, Slay CK, Kraus SD. 2001. Sighting heterogeneity of right whales in the western North Atlantic: 1980-1992. *Journal of Cetacean Research and Management* (Special Issue) 2:245-250.
- ⁸ Kenney RD. 2004. Right whales and climate change: facing the prospect of a greenhouse future. In Kraus SD, Rolland RM, eds. 2007. *The Urban Whale: North Atlantic Right Whales at the Crossroads*. Cambridge, MA: Harvard University Press.
- ⁹ Kenney RD. 2002. North Atlantic, North Pacific, and southern right whales. Pages 806-813 In Perrin WF, Würsig B, Thewissen HGM, eds. *Encyclopedia of Marine Mammals*. San Diego, CA: Academic Press.
- ¹⁰ Baumgartner MF, Mate BR. 2003. Summertime foraging ecology of North Atlantic right whales. *Marine Ecology Progress Series* 264:123-135.

Conclusion

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I have also forwarded a copy of this letter to Ms. Julie Crocker of your office. Ms. Crocker is NRC's main point of contact for ESA consultation at Pilgrim.

Sincerely,

/RA William Ford for/

Melanie C. Wong, Chief
 Environmental Review and
 Guidance Update Branch
 Division of License Renewal
 Office of Nuclear Reactor Regulation

Docket No. 50-293

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Letter to J. Bullard from M. Wong dated May 31, 2013

**SUBJECT: EARTHRISE LAW CENTER'S REQUEST FOR NRC TO REINITIATE SECTION
7 CONSULTATION WITH NMFS FOR CONTINUED OPERATION OF PILGRIM
NUCLEAR POWER STATION**

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