

NRR-PMDAPEm Resource

From: Julie Crocker [julie.crocker@noaa.gov]
Sent: Wednesday, June 27, 2012 9:35 AM
To: Moser, Michelle
Cc: Karen Greene
Subject: Fwd: Letter for you
Attachments: Crocker02511.pdf

Hi Michelle -

Attached is our response to your letter regarding Limerick.

Julie

----- Forwarded message -----

From: Katherine StCyr <katherine.stcyr@noaa.gov>
Date: Wed, Jun 27, 2012 at 9:33 AM
Subject: Letter for you
To: Julie Crocker <Julie.Crocker@noaa.gov>

Here you go Julie!

--

Katherine St.Cyr
Administrative Assistant
Protected Resources Division
NOAA Fisheries Service/Northeast Regional Office
55 Great Republic Drive
Gloucester, MA 01930
Direct Dial: 978-282-8458
Katherine.StCyr@noaa.gov

--

Julie Crocker
Protected Resources Division
Northeast Regional Office
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930

Hearing Identifier: NRR_PMDA
Email Number: 442

Mail Envelope Properties (CAO0U0kxkqFyrDFBBJBhGyt44+nuNagO2YVnHUDTHzQEU6fg4g)

Subject: Fwd: Letter for you
Sent Date: 6/27/2012 9:34:51 AM
Received Date: 6/27/2012 9:35:38 AM
From: Julie Crocker

Created By: julie.crocker@noaa.gov

Recipients:
"Karen Greene" <Karen.Greene@noaa.gov>
Tracking Status: None
"Moser, Michelle" <Michelle.Moser@nrc.gov>
Tracking Status: None

Post Office: mail.gmail.com

Files	Size	Date & Time
MESSAGE Crocker02511.pdf	845 212982	6/27/2012 9:35:38 AM

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

JUN 27 2012

Jeremy J. Susco, Acting Chief
Environmental Guidance and Review Branch
Division of License Renewal
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. Susco,

Your May 30, 2011, letter requests information on NOAA resources near Exelon's Limerick Generating Station in Limerick, Pennsylvania. You are preparing a site-specific Supplemental Environmental Impact Statement (SEIS) to your Generic Environmental Impact Statement for License Renewal of Nuclear Plants in advance of the relicensing of the Limerick facility. Limerick has two operating nuclear generating units that operate with a closed cooling water system (cooling towers). The facility withdraws makeup water from the Schuylkill River, Perkiomen Creek, Wadesville Mine Pool and Merrill Creek Reservoir. Below, we provide you with information on NOAA trust resources that occur in the project area, our statutory authorities and the coordination and consultation procedures that are necessary for this project.

Endangered Species

Shortnose and Atlantic sturgeon occur in the Delaware River. Shortnose sturgeon are endangered. The New York Bight, Chesapeake Bay, South Atlantic and Carolina Distinct Population Segments (DPS) of Atlantic sturgeon are endangered; the Gulf of Maine DPS is threatened. None of these species occur in the Schuylkill River near Limerick or in any of the waterbodies affected by project operations.

Candidate Species

Candidate species are those petitioned species that we are actively considering for listing as endangered or threatened under the ESA, as well as those species for which we have initiated an ESA status review that has been announced in the *Federal Register*. "Candidate" status does not carry any procedural or substantive protections under the ESA. Two candidate species, alewife and blueback herring, occur in the project area. In August 2011, we were petitioned to list alewife and blueback herring under the ESA. We found that the petition presented substantial information indicating that the petitioned action may be warranted, and in November 2011, we published a positive 90-day finding. More information can be found in the *Federal Register* notice that announced this decision (<http://www.nmfs.noaa.gov/pr/pdfs/fr/fr76-67652.pdf>). We consider the use of a closed cycle cooling system like the one at Limerick a good method to minimize the potential for effects of cooling water withdrawal on aquatic species as it minimizes



the amount of water withdrawn for cooling and other uses and minimizes the amount of heated water discharged back to the receiving waters. We recommend that the SEIS consider the following effects of project operations on alewife and blueback herring:

- Impingement and entrainment;
- Discharge of any thermal effluent;
- Discharge of any other pollutant, including radionuclides;
- Loss of prey;
- Any impacts to habitat or conditions that make affected waterbodies suitable for alewife and river herring.

Species of Concern

Species of Concern are those species about which NMFS has some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the ESA. "Species of concern" status does not carry any procedural or substantive protections under the ESA. Several species designated by us NMFS as "species of concern" may occur in the project area. A list of these species can be found at:

<http://www.nmfs.noaa.gov/pr/species/concern/>. We recommend you review the list of species of concern and consider evaluating effects of project operations on these species in the SEIS.

ESA Section 7 Consultation

Section 7(a)(2) of the ESA, states that each Federal agency shall, in consultation with the Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Any discretionary federal action that may affect a listed species must undergo Section 7 consultation. At this time, there are no species listed under the ESA that occur in the action area. Should the listing status of alewife and/or blueback herring change, conference and/or consultation could be necessary. We advise that you confirm the status of these species with us at the time the SEIS is published to determine if any consultation or conference is necessary. We also recommend that you complete any necessary consultation or conference with us prior to making any final decision on reissuance of Limerick's operating license.

Fish and Wildlife Coordination Act

The Schuylkill River and Perkiomen Creek provide habitat for a variety of NOAA trust resources including alewife, blueback herring, American shad, striped bass, hickory shad, bluefish, yellow perch, white perch, bay anchovy and American eel. Several dams along the Schuylkill River downstream of the facility allow fish passage. The Pennsylvania Fish and Boat Commission (PFBC) has released millions of American shad fry in the Schuylkill River over the past 13 years. These stockings continue to be successful, based upon monitoring conducted thus far. The PFBC, in partnership with American Rivers, is proposing diadromous fish habitat restoration on Perkiomen Creek. Target species include American eel, alewife and blueback herring.

As stated above, we consider the use of a closed cycle cooling system like the one at Limerick as a means of reducing the potential for effects of cooling water withdrawal on aquatic species. However, we recommend that the SEIS consider the effect of impingement and entrainment; the

discharge of thermal effluent or any other pollutant, including radionuclides; the loss of prey; and any impacts to habitat or conditions that make affected waterbodies suitable for all NOAA trust resources that occur in the vicinity of the facility. We recommend studies be undertaken to assess the passage of fish and American eel at dams near the facility, particularly on Perkiomen Creek. We also recommend the SEIS evaluate the effectiveness of the measures used to prevent impingement and entrainment at the facility to ensure that the impingement and entrainment of fish eggs and larvae is minimized to the maximum extent practicable and the best available technology is being used.

Magnuson-Stevens Act (MSA)

Section 305 (b)(2) of the 1996 amendments to the MSA requires all federal agencies to consult with the NMFS on any action authorized, funded, or undertaken by that agency that may adversely affect essential fish habitat (EFH). The EFH final rule published in the Federal Register on January 17, 2002 defines an adverse effect as: "any impact which reduces the quality and/or quantity of EFH." The rule further states an adverse effect may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat and other ecosystems components.

Adverse effects to EFH may result from action occurring within EFH or outside EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The rule also states that the loss of prey may be an adverse effect on EFH and managed species because the presence of prey makes waters and substrate function as feeding habitat and the definition of EFH includes waters and substrate necessary to fish for feeding. Therefore, actions that reduce the availability of a major prey species, either through direct harm or capture, or through adverse impacts to the prey species' habitat may be considered adverse effects on EFH if such actions reduce the quality of EFH.

Although, the Schuylkill River and Perkiomen Creek are not currently designated as EFH, these waterways provide habitat for a variety of prey species used by bluefish, windowpane, winter skate and summer flounder, all federally managed species whose EFH has been designated in the mixing zone of the Delaware River. Buckel and Conover (1997) in Fahay *et al.* (1999) report that the diet items of juvenile bluefish include *Alosa* species such as American shad, blueback herring and alewife as well as bay anchovy, silversides and other fish species. Juvenile *Alosa* species have all been identified as prey species for windowpane, winter skate and summer flounder in Steimle *et al.* (2000). As a result, activities that adversely affect the spawning success and the quality of the habitat of these anadromous fishes may adversely affect the EFH for these species by reducing the availability of prey items. The SEIS should consider the effects of the Limerick facility on prey species and the potential effect on federally managed species that occur in the Delaware River.

Conclusions

We look forward to working with you during the relicensing process. Should you have any questions regarding endangered species, please contact Julie Crocker in our Protected Resources Division (PRD) at (978)282-8480 or by e-mail (Julie.Crocker@noaa.gov). Please contact Karen Greene in our Habitat Conservation Division at (732) 872-3023 or by e-mail

(Karen.Greene@noaa.gov) with any questions regarding the Fish and Wildlife Coordination Act or the Magnuson-Stevens Act.

Sincerely,



Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

EC: Greene, Boelke - F/NER4
Crocker, F/NER3
Moser, NRC

Literature Cited

Buckel, J.A. and D.O. Conover. 1997. Movements, feeding periods, and daily ration of piscivorous young-of-the-year bluefish, *Pomatomus saltatrix*, in the Hudson River estuary. Fish. Bull. (U.S.) 95(4):665-679.

Fahay, M.P., P.L. Berrien, D.L. Johnson and W.W. Morse. 1999. Essential Fish Habitat Source Document: Bluefish, *Pomatomus saltatrix* life history and habitat characteristics. U.S. Dep. Commer., NOAA Technical Memorandum NMFS-NE-144.

Steimle, F.W., R.A. Pikanowski, D.G. McMillan, C.A. Zetlin, and S.J. Wilk. 2000. Demersal fish and American lobster diets in the Lower Hudson-Raritan Estuary. NOAA Technical Memorandum NMFS-NE-161. Woods Hole, MA. 106 p.

PRD File Code: Sec 7 NRC Limerick relicensing
PCTS: T/NER/2012/02511