



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

Teleconference with PSEG Nuclear, LLC Regarding Incidental Take of Atlantic Sturgeon at Salem
Nuclear Generating Station, Units 1 and 2

April 17, 2020

TELECONFERENCE DATE

April 15, 2020

PARTICIPANTS

U.S. Nuclear Regulatory Commission (NRC)

Briana Grange, Conservation Biologist & ESA Consultation Coordinator

PSEG Nuclear, LLC (PSEG)

Kenneth Strait, Biological Programs Manager

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BACKGROUND

- In 2014, and as clarified in 2018, the National Marine Fisheries Service (NMFS) issued a biological opinion that allows for the impingement or collection at the trash bars of a total of 61 dead Atlantic sturgeon, of which 18 may be dead due to impingement at Salem Nuclear Generating Station, Units 1 and 2 (Salem).
- Salem is approaching the allowable take of dead Atlantic sturgeon (all causes).
- Salem may be in exceedance of the allowable take of dead Atlantic sturgeon (causal to plant operations) depending on the causality determinations for recent mortalities.
- The teleconference was scheduled to determine if the allowable take limit has been exceeded and whether the NRC's reinitiation of formal consultation with the NMFS is required at this time.

TELECONFERENCE NOTES

- PSEG has collected large numbers of sturgeon at Salem over the past year.
 - For instance, on April 2, ~20 Atlantic sturgeon were collected from in front of the trash bars.
 - The 2017 Atlantic sturgeon year class was very large, according to reports from local researchers.
 - Most of the sturgeon Salem has been collecting are ~2-3 years old, which means that they are part of the 2017 cohort.
- PSEG noted that when the biological opinion was formulated, only a few years of data was available.
 - PSEG had not been previously monitoring for Atlantic sturgeon at Salem.
 - Few other research projects had been funded in the Delaware River estuary on the species at the time.

- Accordingly, the recent increase in sturgeon numbers at Salem are not necessarily an anomaly.
- With the recent takes, however, PSEG has exceeded the allowable take of dead Atlantic sturgeon (causal to plant operations).
- In March, PSEG spoke with Lynn Lankshear at NMFS.
 - At that time, NMFS was looking into potential causes of recent mortalities at Salem because the injury patterns are not readily attributable to what has been observed for past causal mortalities.
 - Some injuries and mortalities may be the result of contact with the trash rakes. However, many individuals have not exhibited clear puncture wounds.
- PSEG has taken initiative to coordinate with local researchers and investigate operational strategies to minimize impacts to sturgeon.
 - For example, PSEG has coordinated with Hal Brundage, a Fisheries Biologist and sturgeon expert that has worked on the U.S. Army Corps of Engineers Delaware River estuary channel deepening project.
 - PSEG is considering whether modified raking strategies could reduce the likelihood of sturgeon injury or mortality. Most raking that PSEG performs is to meet the weekly requirement in the biological opinion rather than because of debris loading. Reducing raking frequency or modifying raking triggers could possibly alleviate risk to sturgeon.
 - PSEG is planning to install a sonar device on the front of the intake at the trash rakes to gather more information on sturgeon behavior near the trash rakes.
 - PSEG is commissioning an in-river survey to determine the relative abundance and distribution of sturgeon within specific areas of the river channel.
 - PSEG is also considering different intake technologies that could reduce take. For example, underwater sound or modifications to the trash rake could prompt sturgeon to move out of the immediate area of the rake before they are injured.
- NRC explained that reinitiation of formal consultation will be necessary.
 - Reinitiated consultation is required to address the allowable take limit exceedance.
 - Consultation is also the appropriate process through which the NMFS could change the trash rake schedule or modify other terms and conditions.
- Although PSEG has exceeded the allowable take limit, PSEG remains in compliance with the NRC license condition that concerns the biological opinion because PSEG is engaging in the appropriate regulatory process to address such exceedance (i.e., requesting the NRC's reinitiation of formal consultation with the NMFS).
- NRC and PSEG agreed that, ideally, consultation should be completed before sturgeon return to the estuary in November. This timeline is possible if NRC and NMFS adhere to the 135-day timeframe established in the regulations (50 CFR 402.14).

FOLLOW UP ACTIONS

- PSEG will send the NRC its 2019 annual report.
- NRC will coordinate a conference call between NRC, NMFS, and PSEG to discuss reinitiated consultation.

Docket Nos.: 50-272 and 50-311

ADAMS Accession No. ML20108F065

PSEG was provided an opportunity to review and comment on this teleconference summary prior to its finalization.