

NRR-PMDAPEm Resource

From: Gless, Jodie [Jodie.Gless@fpl.com]
Sent: Friday, October 07, 2011 8:02 AM
To: Shelley Norton
Cc: Logan, Dennis; Balsam, Briana
Subject: Clarifying questions on the operations at the St. Lucie Nuclear Power Plant
Attachments: for NMFS Residency.xlsx; Responses for NMFS 10 3.doc

Hi Shelley,

Attached are our responses to your questions.

Please let me know if you need anything else.

Thank you,

Jodie

Jodie Gless
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> -----Original Message-----

> From: Shelley Norton [mailto:Shelley.Norton@noaa.gov <Shelley.Norton@noaa.gov>]

> Sent: Monday, September 26, 2011 3:12 PM

> To: Balsam, Briana

> Cc: Gless, Jodie; Logan, Dennis

> Subject: Re: Clarifying questions on the operations at the St. Lucie Nuclear Power Plant

>

> Thanks Briana. I will put the expiration date as March 1, 2036. Denis

> may have provided that date to me but I just wanted to make sure nothing

> has changed.

>

> Shelley

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> Balsam, Briana wrote:

>> Hi Shelley,

>>

>> I think that FPL will be the best ones to answer the first 5 questions, but for #6, St. Lucie's current operating licenses expire on March 1, 2036 (Unit 1) and April 6, 2043 (Unit 2). If, before that time, St. Lucie applies for a second renewed license, then--yes, we would reinitiate at that time. We would also (of course) reinitiate if St. Lucie met any of the criteria in 50 CFR 402.16.

>>

>> Briana

>>
>> -----Original Message-----
>> From: Shelley Norton [mailto:Shelley.Norton@noaa.gov <Shelley.Norton@noaa.gov>]
>> Sent: Monday, September 26, 2011 2:59 PM
>> To: Gless, Jodie; Logan, Dennis; Balsam, Briana
>> Subject: Clarifying questions on the operations at the St. Lucie Nuclear Power Plant

>>
>> Good afternoon, can you please clarify the following questions below?

>>
>> 1. Are sea turtle biologists on-sight during daylight hours every day
>> (365 days a year)?

>>
>> 2. Are sea turtle biologists taking blood samples from captured sea
>> turtles? If so, what is the Section 10 (a)(1)(A) permit number
>> authorizing this work?

>>
>> 3. I measured the distance between the headwall and the 5-in barrier net
>> using Google Earth and calculated it to be approximately 475-ft. Is this
>> correct?

>>
>> 4. I also measured the width of the intake canal from the Google Earth
>> image and determined it is 200-ft across. Is this correct? The
>> description I have from the NRC states 300-ft.

>>
>> 5. What is the average residency time of a sea turtle in the intake
>> canal? How are you calculating this residency time?

>>
>> 6. What is the trigger for reinitiation consultation on this opinion? Is
>> this biological opinion going to be reinitiated during the relicensing
>> of the plant? I need to put a timeframe on the opinion.

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>> Thanks,
>> Shelley

>>
>> Shelley Norton
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>> NOAA Fisheries Service
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> --

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Subject: Clarifying questions on the operations at the St. Lucie Nuclear Power Plant
Sent Date: 10/7/2011 8:01:56 AM
Received Date: 10/7/2011 8:02:05 AM
From: Gless, Jodie

Created By: Jodie.Gless@fpl.com

Recipients:

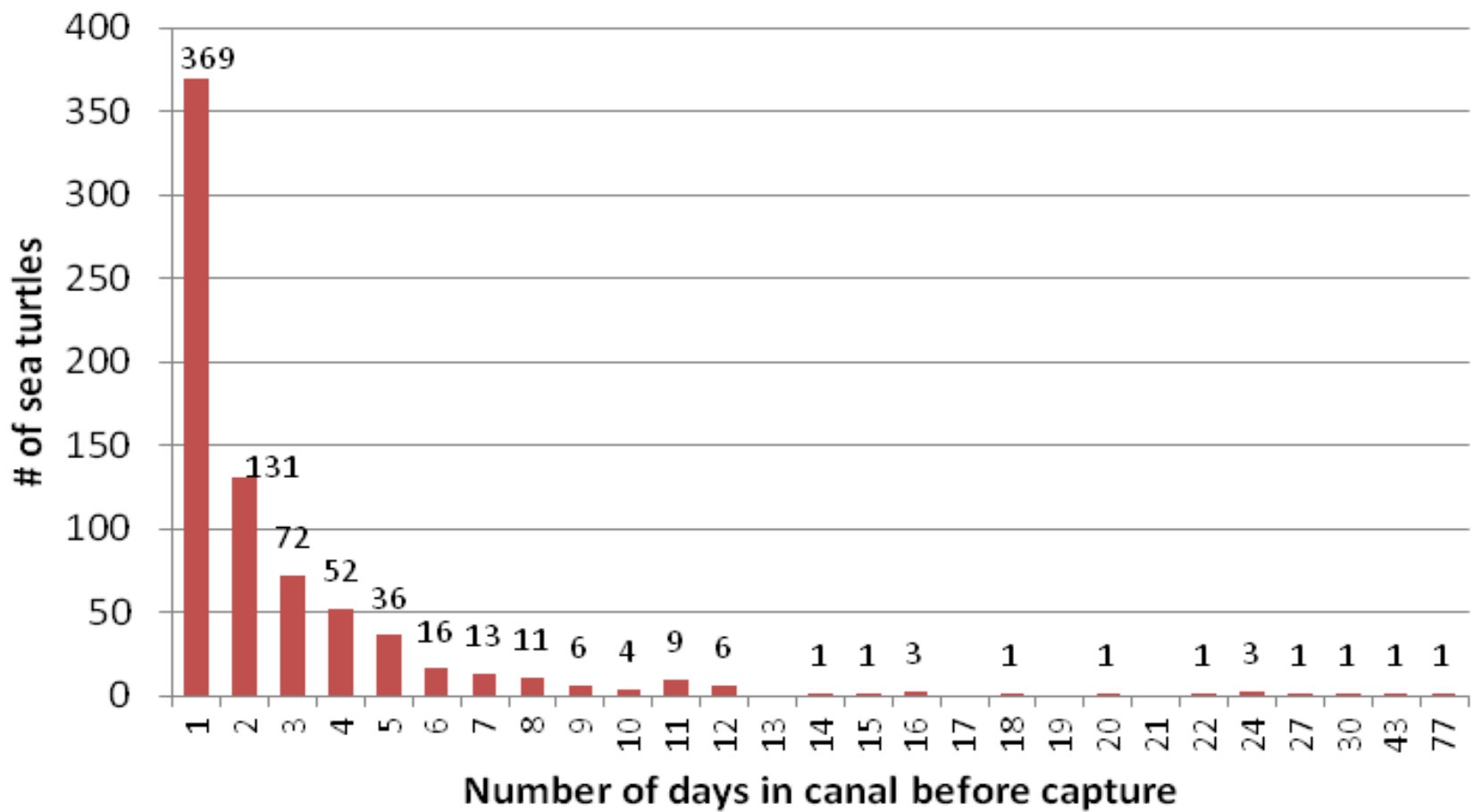
"Logan, Dennis" <Dennis.Logan@nrc.gov>
Tracking Status: None
"Balsam, Briana" <Briana.Balsam@nrc.gov>
Tracking Status: None
"Shelley Norton" <Shelley.Norton@noaa.gov>
Tracking Status: None

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| MESSAGE | 3879 | 10/7/2011 8:02:05 AM |
| for NMFS Residency.xlsx | | 28929 |
| Responses for NMFS 10 3.doc | | 35392 |

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
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1. Are sea turtle biologists on-sight during daylight hours every day (365 days a year)?

Sea turtle biologists are on staff as required by the conditions set forth in the most recent BO (5 days a week, 8 hours a day normal conditions and 7 days a week, 12 hours a day if an adult is in the canal during nesting season; a sick or injured turtle is seen in the canal; a turtle is in the canal for more than a week; or a leatherback is found in the canal.) However, these hours of operation are exceeded throughout the year, by staffing sea turtle biologists 7 days a week during daylight hours, typically 8-10 hours a day in the winter and 10-12 hours a day in the summer. On holidays, sea turtle biologists are at the canal for 4 hours. FPL requests that the condition remain the same in the updated BO.

2. Are sea turtle biologists taking blood samples from captured sea turtles? If so, what is the Section 10 (a)(1)(A) permit number authorizing this work?

Currently, no blood samples are taken from any turtles, but biologists have done so in the past, through collaborative studies with Universities and governmental agencies, including NMFS and FWCC. Typically, the principle investigator for the study will add the power plant and the biologists working there to their existing permit. However, at times, the biologists have conducted other studies that were simply added to the State of Florida permit.

NMFS permits were not obtained for special studies that addressed the conservation recommendations or conditions set forth in the BO. The biologists and FPL were under the understanding, from conversations with former sea turtle biologists at the power plant, FWCC and NMFS that these special studies were covered under the Section 7 consultations as long as they were approved by NMFS and added to the Florida permit after their peer review of the project proposal. Many times these special studies only lasted a couple of weeks. In one case, NMFS asked the biologists to investigate the feasibility of lavaging loggerheads. This study lasted about 3 weeks, and the biologists were able to lavage about 25 loggerheads to determine that it was not a productive way of analyzing diet components for this species. There have been several other studies at the intake canal similar to this where no section 10 permit was obtained from NMFS. They were approved by NMFS and FWCC and these activities were described and listed in the monthly and annual reports to the agencies.

Is it possible to incorporate language into the BO that states the current method of initiating special studies that relates to the conditions and conservation recommendations in the consultation?

3. I measured the distance between the headwall and the 5-in barrier net using Google Earth and calculated it to be approximately 475-ft. Is this correct?

Yes, if you are measuring from the southern headwall (for the two - 12ft diameter pipes) to the concrete pilings/pylons.

However, from the northern headwall, where the 16 ft diameter intake pipe enters the canal, to the centerline of the concrete pylons/pilings is approximately 560 ft.

Additional information: The base of the net is approximately 50 ft east of the concrete pylons/pilings.

4. I also measured the width of the intake canal from the Google Earth image and determined it is 200-ft across. Is this correct? The description I have from the NRC states 300-ft.

Yes, if you are measuring width of the water line, at the turtle net, at a water elevation of -2 ft.

Additional information: At the east end of the canal near the headwalls, it is approximately 330 ft from top of bank to top of bank. At the turtle net, it is approximately 295 ft from top of bank to top of bank.

Because the canal banks are sloped at approximately a 3:1 slope, the width of the canal at the water line varies depending on tides and plant operation.

A 200 ft width of top of water in the canal, at the turtle net, would equate to approximately a water elevation of -2 ft (MLW). We have a 9 ft variation in canal elevation from approximately +3ft to -6ft (MLW) depending on tides and plant operation. The width of the water at +3ft and -6ft would be approximately 234 ft, and 180ft, respectively. -2ft would be in the middle of that tidal range.

Add 35 ft to the width if you are measuring further east (closer to the headwall).

5. What is the average residency time of a sea turtle in the intake canal? How are you calculating this residency time?

To determine residency times, the biologists have a daily monitoring sheet with a list of sea turtles that are sighted in the canal. New turtles are added to the list as they are sighted throughout the day and turtles that are captured are taken off of the list.

A turtle sighted in the canal and put on the list is identified to species and approximate size/weight. Any distinguishing characteristics are also noted (i.e., barnacle on head, lethargic, flipper injury etc.). This helps to identify individuals of the same species and size class.

Using this method, the biologists calculated an average residency time of 2.91 days for 740 sea turtles captured in 2009 and 2011. Please see attached chart of residency times. The only caveat to this method is during unusual events like the cold stunning of 2010, where within a week the biologists captured over 200 green turtles of roughly the same size class. During times like this, it is impossible to determine residency times. Using hand capture methods when water clarity is above 10 ft has been extremely effective in reducing residency times. In 2011, over 50% of all turtles caught were captured using this method.