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Puleo, Shelley

From: Cobb, Michael
Sent: Wednesday, July 17, 2013 1:56 PM
To: allan.palmer@nu.com
Cc: linda.landis@nu.com; Stein, Mark; DeMeo, Sharon M.; Houlihan, Damien

Good afternoon Allan,

This is to follow-up regarding information previously requested by EPA. Here are the items that are still unresolved (your 4/2/13 responses are in red):

1. Either a redacted version of the October 2008 Response to EPA's CWA § 308 letter or a letter from PSNH releasing the CBI designation for the same report.

EPA must produce a publicly reviewable record and when an entire report is claimed CBI, this becomes difficult. If PSNH is unable or unwilling to provide a redacted version, EPA will have no choice but to initiate formal procedures in accordance with 40 CFR Part 2, Subpart B to substantiate PSNH's assertion that your entire submission is CBI.

2. ... Please also include intake velocity calculation at the intake point of the Unit 4 pipe based on maximum design flow.

We have asked Enercon to analyze the velocity at the bar rack at the offshore inlet and will provide the estimate when available.

3. Please provide further explanation why the installation of multi-disc screens would result in higher through-screen velocities especially when combined the Unit 3 renovations, since the Unit 3 renovations is reported to reduce intake velocity. EPA notes that for Merrimack Station, PSNH reported that the installation of multi-disc screens would reduce impingement mortality by 69% for Unit 1 and 80% for Unit 2.

We are working with Enercon to work out the details to this issue and will provide the response when it is available.

4. Please provide further explanation why the installation of WIP screens would result in smaller screen surface area overall (and higher through-screen velocities) especially when combined the Unit 3 renovations, since the Unit 3 renovations is reported to reduce intake velocity.

We are working with Enercon to work out the details to this issue and will provide the response when it is available.

5. Please provide an evaluation of a combined fish return system that connects both screen houses and engineered to transport fish away from the intake structures based on the direction of tidal flow.

We have not considered a combined fish return system and, as stated in the 2008 Report, additional studies are required to identify optimum discharge locations and determine the feasibility of adequate support structures. This work represents a significant effort with commensurate costs for both biological and engineering evaluations. PSNH requests a discussion with EPA before we commit to such an evaluation.

EPA would like to set up a time it discuss this option, which is a potential, viable component of BTA at Schiller Station. Thank you.

6. Your 5/28/13 email includes a discussion of the unlikelihood of Schiller Station running any of its Units with only one pump. You also state that "[r]egarding shutdown, we believe all three units can turn off both pumps within roughly two hours of securing the turbine. This modification could reduce station water flow by an appreciable amount and we are

currently considering implementing this change as standard procedure.” (emphasis added) Please confirm whether you are referring to the infrequent “shutdown” periods used for maintenance or the more frequent “standby” status periods. Also, please verify whether this procedure has been or will be implemented in the future.

7. EPA also requests additional information about the feasibility of dual-flow screens at Schiller Station. PSNH determined that dual-flow screens were technologically infeasible because the size of the existing intake structure could not accommodate a dual-flow retrofit. PSNH also indicated that total replacement or extensive modifications of the intake structures would be required at a cost much higher than the cost of the screens themselves. Please provide further explanation or supporting information to document or explain these assessments.

Please feel free to contact me if you have any questions or would like to discuss any of these items more thoroughly.

Best,

Michael Cobb
Environmental Engineer
U.S. Environmental Protection Agency
5 Post Office Sq. Suite 100
Mail Code: OEP06-1
Boston, MA 02139-3912
(617) 918-1369

Puleo, Shelley

From: Stein, Mark
Sent: Tuesday, March 05, 2013 4:11 PM
To: Schena, Cristeen
Cc: Houlihan, Damien; Hoang, Yen; DeMeo, Sharon M.; King, John Paul
Subject: RE: PSNH FOIA Request

Hi Cris – Thanks. Please co-assign this one to Damien Houlihan’s office in OEP. Thanks.

From: Schena, Cristeen
Sent: Tuesday, March 05, 2013 12:20 PM
To: Stein, Mark
Subject: FW: PSNH FOIA Request

Mark,

For this one the FOIA tracking number is: EPA-R1-2013-004192 and the due date is 4/2/13.

Cris

From: linda.landis@nu.com [<mailto:linda.landis@nu.com>]
Sent: Tuesday, March 05, 2013 10:56 AM
To: Stein, Mark
Cc: Schena, Cristeen; Taylor, Spence; MFreeman@balch.com
Subject: Re: PSNH FOIA Request

Mark: Please see the attached FOIA request seeking information specific to communications between EPA and CLF/Sierra Club related to the Merrimack Station FGD wastewater treatment system. Please give me a call if I can provide any clarification. Thank you. Linda

Linda T. Landis, Senior Counsel
Legal Department
Public Service Company of NH
780 No. Commercial Street
Manchester, NH 03101
(603)634-2700
Fax (603)634-2438

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Puleo, Shelley

From: allan.palmer@nu.com
Sent: Wednesday, July 31, 2013 2:57 PM
To: Cobb, Michael
Cc: DeMeo, Sharon M.; Houlihan, Damien; linda.landis@nu.com; Stein, Mark
Subject: Schiller Station NPDES issues

Hello again Michael.

As we discussed Monday, the Enercon follow-up report with the majority of your remaining answers was just being completed when you returned the latest email update with a new question on dual flow screens. We directed Enercon to postpone the report until they were able to include a response to your new question 7. (see below). We hope to provide you the report with all of the answers within the next two weeks. With the regard to the remaining issues:

- The Enercon Report is sizable and contains information that is confidential to both PSNH and third party vendors. Linda Landis is working through the document to identify areas that do not require protection. Please have Attorney Stein contact Ms. Landis if more details are required at this time.
- Enercon is providing an overview of a fish return system which we can discuss once you have a chance to review the follow-up report.
- With regard to turning off circ pumps when the generating units come off-line, we are currently considering whether the practice can be followed under all circumstances, including during short term standby status. To date, we have made no changes.

Thanks, Allan.

From: "Cobb, Michael"
To: Allan G. Palmer/NUS@NU
Cc: Linda T. Landis/NUS@NU, "Stein, Mark" , "DeMeo, Sharon M." , "Houlihan, Damien"
Date: 07/17/2013 01:55 PM
Subject:

Good afternoon Allan,

This is to follow-up regarding information previously requested by EPA. Here are the items that are still unresolved (your 4/2/13 responses are in red):

1. Either a redacted version of the October 2008 Response to EPA’s CWA § 308 letter or a letter from PSNH releasing the CBI designation for the same report.

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3. Please provide further explanation why the installation of multi-disc screens would result in higher through-screen velocities especially when combined the Unit 3 renovations, since the Unit 3 renovations is reported to reduce intake velocity. EPA notes that

for Merrimack Station, PSNH reported that the installation of multi-disc screens would reduce impingement mortality by 69% for Unit 1 and 80% for Unit 2.

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Please feel free to contact me if you have any questions or would like to discuss any of these items more thoroughly.

Best,

Michael Cobb
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Puleo, Shelley

From: Cobb, Michael
Sent: Tuesday, April 02, 2013 4:59 PM
To: DeMeo, Sharon M.; Houlihan, Damien; Stein, Mark
Subject: FW: Schiller Questions

I just received this initial response to a couple recent requests Sharon and I sent to Allan Palmer. Let me know if we should discuss any items in more detail.

Mark, item 4 addresses the CCR discharge issue (it is a "dry" process). Also, item 1 requests that you contact Linda Landis.

Best,

Michael Cobb
Environmental Engineer
U.S. Environmental Protection Agency
5 Post Office Sq. Suite 100
Mail Code: OEP06-1
Boston, MA 02139-3912
(617) 918-1369

From: allan.palmer@nu.com [mailto:allan.palmer@nu.com]
Sent: Tuesday, April 02, 2013 4:49 PM
To: Cobb, Michael
Cc: landilt@nu.com; william.smagula@nu.com; elizabeth.tillotson@nu.com; richard.despins@nu.com; peter.leavitt@nu.com; felicia.giordano@nu.com; jeffrey.patry@nu.com
Subject: Schiller Questions

Michael, Sorry for the delay in getting this first round of answers to you, but we were tied up finishing the 308 response for Merrimack Station that was due last week. Several of these questions need to be confirmed with Enercon and I am wrapping up a Purchase Order with them to perform the work. Once under contract, I expect they will complete the review in a couple weeks and I will forward that information to you, with the exception of the final question on the list. An evaluation of a new fish return system will take extra time and money so I want to discuss that matter with you further before we proceed.

Please let me know if you have any questions with this response; I hope to follow-up with the majority of the remaining answers by mid-month. Thanks, Allan.

Firstly, as we discussed during the February 13, 2013 site visit, EPA requests the following:

- 1.) Either a redacted version of the October 2008 Response to EPA's CWA § 308 letter or a letter from PSNH releasing the CBI designation for the same report.
Please have Mark Stein contact Linda Landis directly to discuss this request.
- 2.) Dimensions of the Unit 4 intake pipe, as well as the dimensions of the two abandoned Unit 3 intake pipes. Please also include intake velocity calculation at the intake point of the Unit 4 pipe based on maximum design flow.
The 2008 Report provided plans in Attachment 5 and a description was provided on pages 4 and 5 (all 3 pipes are 6.5 feet ID). We have asked Enercon to analyze the velocity at the bar rack at the offshore inlet and will provide the estimate when available.

3.) A spreadsheet (preferably in MS Excel) detailing the actual (or estimated) total daily intake flow volume and corresponding electrical generation over a period of the most recent 2 years.

Daily average cooling water flows for the 3 units are reported individually to EPA each month with the DMR forms. We are compiling the station total generation numbers on a monthly basis for the last two years and will provide the data when complete.

Additionally, after the site visit, other questions have been raised that need clarification. They are as follows:

4.) Please provide the details regarding ash handling systems (fly ash and bottom ash). Specifically, is any waste water generated from these operations? If so, provide the volume, processing steps and ultimate discharge location. Also, please provide the mass and disposal method of the ash solids. Is there an impoundment or landfill on-site? If so, is leachate collected and discharged?

All ash handling is done "dry" with no wastewater generation or the use of an impoundment or on-site landfill.

Ash weight estimates and facilities used are reported to EPA in the station annual Toxics Release Inventory report.

5.) Please clarify under what conditions, if any, only 1 intake pump is operated.

Historically the units only generate power when both circulating water pumps are operating; rarely is only one circulating pump running. Based upon the discussion at our 2/13 meeting, station personnel have begun to evaluate conditions when only one circ pump is needed and if it is possible to turn off both pumps on a more frequent basis. We will provide that information when their evaluation is complete.

6.) In the October 2008 Response to EPA's CWA § 308 letter, PSNH indicates that maintenance costs for Unit 3 intake renovation and the continuous operation of screen option are \$20,000 and \$50,000, respectively. Please confirm that these are yearly figures.

Yes, these are the added annual estimated costs associated with running traveling screens and the fish return system continuously.

7.) Did PSNH contact Gunderboom directly during its evaluation of aquatic microfiltration barriers for the 2008 report in regards to Schiller Station? If so, please provide their direct findings.

PSNH did not contact Gunderboom as the analysis by Enercon indicated that the space limitations were too severe to allow the proper deployment of a long enough barrier. Enercon will review their file to determine if any information specific to Schiller Station was provided directly from Gunderboom.

EPA continues to work on the reissuance of Schiller Stations NPDES permit. Based on the review of the October, 2008 report titled "Response to Environmental Protection Agency CWA §308 Letter, PSNH Schiller Station, Portsmouth, New Hampshire," EPA requests the following information:

1) Please provide further explanation why the installation of multi-disc screens would result in higher through-screen velocities especially when combined the Unit 3 renovations, since the Unit 3 renovations is reported to reduce intake velocity. EPA notes that for Merrimack Station, PSNH reported that the installation of multi-disc screens would reduce impingement mortality by 69% for Unit 1 and 80% for Unit 2.

We are working with Enercon to work out the details to this issue and will provide the response when it is available.

2) Does Schiller Station normally run all 6 circulating pumps during generation and 3 pumps when on standby?

It has been common practice to typically run all six pumps the majority of the time. As mentioned in response #5 above, Station Operations is investigating the practice of when one or both pumps can be turned off as a part of off-line operation and we will provide that information when the evaluation is complete.

3) What construction material is used for the fish return pipes (i.e., fiberglass, PVC)?

Our records indicate that the pipe is constructed of vinylester resin fiberglass.

4) Please provide further explanation why the installation of WIP screens would result in smaller screen surface area overall (and higher through-screen velocities) especially when combined the Unit 3 renovations, since the Unit 3 renovations is reported to reduce intake velocity.

We are working with Enercon to work out the details to this issue and will provide the response when it is available.

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