From:	Stafford, Robert E
To:	Seiler, Ann
Cc:	Stafford, Robert E; Balcom, Ilia G.; Esin, Kerem
Subject:	RE: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill
Date:	Friday, May 22, 2020 11:14:36 AM
Attachments:	image004.png Fig 1 - Site Map.pdf Fig 2 - Stormwater drainage.pdf

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Ann;

As a follow-up to our email communication, the following is a project description/ summary regarding Duke Energy Florida's Crystal River Energy Complex Ash Storage/Disposal Area Stormwater and Sedimentation Basin Improvement Project. As you recall, we are reaching out to the Siting Office to determine any potential change to the COC that may be required as a result of this project. More information may be shared during our Skype Meeting Conference Call scheduled for Wednesday May 27th.

Background Project Description

Ash and other coal combustion residual (CCR) generated at the Crystal River Energy Complex (CREC) have been historically stored in the Ash Storage/Disposal Area (AS/DA) since the early 1980's. A Site Map depicting the location of the AS/DA is included as **Figure 1**.

The permitted size of the AS/DA is approximately 100 acres with 62 acres currently used and maintained for storage of CCRs. About 5.5 acres are lined at the bottom with a geosynthetic clay liner (GCL) without a leachate collection system. Approximately 17 acres of the 62-acre AS/DA has been already closed with a final cover system consisting of, from top to bottom: (i) 6-inch (in.) thick vegetative support layer; (ii) 18-in. thick protective cover soil layer; and (iii) GCL.

As shown in **Figure 2** the AS/DA is bounded to the west, south, east, and north by unlined stormwater ditches and to the southwest by unlined Sedimentation and Drainage Ponds connected to the stormwater ditches. Stormwater runoff management for the AS/DA consists of procedures to grade the ash as material is transferred and compacted, and the use of a stormwater retention and conveyance system (AS/DA runoff system). The West Ditch and Sedimentation Pond receive contact stormwater from the active face of the AS/DA; this runoff is conveyed via culverts that connect to the existing Drainage Pond and ultimately to the South, East, and North Ditches. The runoff system is designed to overflow as an internal outfall to the Units 4 and 5 stormwater collection system via an overflow structure and weir (Outfall I-C40 northeast of Units 4 and 5) as outlined in the National Pollutant Discharge Elimination System (NPDES) Permit FL0036366.

Project Overview / Purpose

The results from EPA's CCR Rule Assessment of Corrective Measures (ACM) study performed by Geosyntec [2019] indicated that ash sediments in the AS/DA stormwater management system contribute to the impacts to the groundwater at the AS/DA and that "…the ditches and stormwater ponds will need to be remediated by removing sedimented CCR…". Remediation of the AS/DA perimeter stormwater management system is proposed as a means of source control for the Site. The proposed improvements will include: (i) removal of ash sediments from the ditches and ponds – ditch remediation/sediment excavation activity has been initiated; (ii) regrading and lining of the West Ditch and Sedimentation Pond; and (iii) regrading to permitted design grades and placement of vegetative cover to restore the South, East, and North Ditches and Drainage Pond to the minimum capacity of the permitted system.

DEF intends to improve the sedimentation basin by installing a liner and concrete base that will allow for ingress and egress of equipment during the removal of solids that settle out in the basin. Standpipes or equivalent structures will be installed to capture the majority of solids in the basin thus, minimizing solids from entering the adjacent stormwater collection pond and surrounding ditches. Therefore, stormwater that exits the stormwater pond to the existing continuous ditch system will also have improved stormwater quality. The goal is to capture the majority of CCR solids in the basin with minimal solids entering the surrounding ditch system. The location of the AS/DA, sedimentation basin, stormwater collection system and stormwater ditch system are depicted on **Figure 2**.

Based on the run-on/run-off control plan prepared by Golder Associates which was a requirement of the federal CCR rules, Golder calculated the capacity of the existing landfill stormwater control system to manage the 25-year/24-hour storm event. Golder assumed that the entire ash landfill surface as impermeable (using a curve number of 98) and determined the existing system has adequate capacity to manage the 25-year/24-hour storm event. Also, the 2010 stormwater calculations reviewed by the Department as part of the approval of the vertical expansion similarly considered the ditches and ponds as impervious surfaces. Therefore, per the run-on/run-off control plan and previous stormwater calculations, any additional impervious area would have a negligible increase in stormwater generation due to the increased impermeable area.

If you have any questions please contact me at (727) 409-3340 (cell).

From: Seiler, Ann <Ann.Seiler@FloridaDEP.gov>
Sent: Tuesday, May 19, 2020 2:42 PM
To: Stafford, Robert E <Robert.Stafford@duke-energy.com>
Subject: RE: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill

Sounds good Bob. I will send out meeting invites. I think if you provide us with the initial project summary and description - we may determine other information that will be necessary.
Thank you.

Ann Seiler
Florida Department of Environmental Protection
Siting Coordination Office
2600 Blair Stone Rd. MS 5500
Tallahassee, Florida 32399
Ann.Seiler@Floridadep.gov
Office: 850.717.9113
Cell: 850.228.6237

From: Stafford, Robert E <Robert.Stafford@duke-energy.com>
Sent: Tuesday, May 19, 2020 2:18 PM
To: Seiler, Ann <Ann.Seiler@FloridaDEP.gov>; Jarmolowski, James <James.Jarmolowski@dep.state.fl.us>
Cc: Ciaravella, Philip <Philip.Ciaravella@FloridaDEP.gov>; Kromhout, Elizabeth <Elizabeth.Kromhout@FloridaDEP.gov>; Dertien, Joe <Joe.Dertien@dep.state.fl.us>; Balcom, Ilia G. <Ilia.Balcom@duke-energy.com>; Mulkey, Cindy <Cindy.Mulkey@dep.state.fl.us>; Stafford, Robert E <Robert.Stafford@duke-energy.com>
Subject: RE: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill

Ann,

May 27th from 10:30 a.m -11:30 a.m. is a good date/time for us.
Will you be setting up a conference call line or prefer I do so?

Also, please let me know if there is any information you need in advance or, should we initiate this discussion with a general background and project description summary of the project?

Please advise. Thanks, Bob

From: Seiler, Ann <Ann.Seiler@FloridaDEP.gov>
Sent: Tuesday, May 19, 2020 1:15 PM
To: Stafford, Robert E <Robert.Stafford@duke-energy.com>; Jarmolowski, James <James.Jarmolowski@dep.state.fl.us>
Cc: Ciaravella, Philip <Philip.Ciaravella@FloridaDEP.gov>; Kromhout, Elizabeth <Elizabeth.Kromhout@FloridaDEP.gov>; Dertien, Joe <Joe.Dertien@dep.state.fl.us>; Balcom, Ilia G. <Ilia.Balcom@duke-energy.com>; Mulkey, Cindy <Cindy.Mulkey@dep.state.fl.us>
Subject: RE: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill

Good afternoon Bob,
We will miss Jim!

If we could hold a conference call on the 26th or the 27th, that would be preferred. Here are some times that I believe will work:

May 26th	11:30-12:30am
May 27th	10:30-11:30am
	2:00-3:00pm
	2;05-3:05pm
	2:30-3:30pm

Thank you,

Ann Seiler
Florida Department of Environmental Protection
Siting Coordination Office
2600 Blair Stone Rd. MS 5500
Tallahassee, Florida 32399
Ann.Seiler@Floridadep.gov
Office: 850.717.9113
Cell: 850.228.6237

From: Stafford, Robert E <Robert.Stafford@duke-energy.com>
Sent: Tuesday, May 19, 2020 11:22 AM
To: Jarmolowski, James <James.Jarmolowski@dep.state.fl.us>
Cc: Seiler, Ann <Ann.Seiler@FloridaDEP.gov>; Ciaravella, Philip <Philip.Ciaravella@FloridaDEP.gov>; Kromhout, Elizabeth <Elizabeth.Kromhout@FloridaDEP.gov>; Dertien, Joe <Joe.Dertien@dep.state.fl.us>; Stafford, Robert E <Robert.Stafford@duke-energy.com>; Balcom, Ilia G. <Ilia.Balcom@duke-energy.com>
Subject: RE: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill

Jim; Thank-you for your quick reply and best wishes in your retirement. I had sent an email to Ann Seiler so will work with the Siting Office to introduce the project and receive feedback to determine what information may be needed. I'd like to hold a brief conference call to introduce the project scope so we can best determine necessary plan of action.

Thanks, Bob

From: Jarmolowski, James <James.Jarmolowski@dep.state.fl.us>
Sent: Tuesday, May 19, 2020 10:53 AM
To: Stafford, Robert E <Robert.Stafford@duke-energy.com>
Cc: Seiler, Ann <Ann.Seiler@FloridaDEP.gov>; Ciaravella, Philip <Philip.Ciaravella@FloridaDEP.gov>; Kromhout, Elizabeth <Elizabeth.Kromhout@FloridaDEP.gov>; Dertien, Joe <Joe.Dertien@dep.state.fl.us>
Subject: RE: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill

Bob,

Good morning – in response to your e-mail below, the following items are provided:

1. Regarding the proposed project, the recommended approach is to prepare a summary document of what is being proposed, with any draft site plans. The document should be submitted to the Siting Coordination Office.

2. Typically the Department prefers to have a least a week to review this type of submittal, to allow for coordination between Department personnel and formulate any comments.

3. Based on this time frame, if a document is submitted later this week or next week (which is a shorter work week due to Memorial Day), then a teleconference could be scheduled some time during the week of June 1, 2020.

4. I have copied Department representatives on this e-mail that I believe should participate in the review process. Regarding my participation in a teleconference the week of June 1, 2020, this is to let you know that I will be retiring from DEP at the end of May, where my last day will be May 28, 2020, and I will not be available.

Best regards,

Jim

James Jarmolowski, P.G.
FDEP Solid Waste Section
2600 Blair Stone Road
Tallahassee, Florida 32399
phone: 850-245-8856

From: Stafford, Robert E <Robert.Stafford@duke-energy.com>
Sent: Tuesday, May 19, 2020 10:19 AM
To: Jarmolowski, James <James.Jarmolowski@dep.state.fl.us>
Cc: Stafford, Robert E <Robert.Stafford@duke-energy.com>
Subject: Request for Time to Provide Project Info - Duke Energy Crystal River Ash Landfill

Hello Jim; Hope you're staying healthy and are doing well.

Could you please provide a couple of dates and times that you and other interested folks in your department can hold a brief conference call with me. The purpose of the conference call is to update your section on a new project occurring in the ash landfill's stormwater ditch system. The new project is a stormwater ditch and ash sedimentation basin improvement project.

I'll be contacting Ann Seiler in the Siting office for the purpose of scheduling a separate meeting to discuss any potential permitting impacts of the COC .

Thanks,

Bob

Bob Stafford
Duke Energy Florida

299 1st Avenue North | St. Petersburg, FL 33701
Office 727.820.5538 | Mobile 727.409.3340
robert.stafford@duke-energy.com