Message

From: Rebecca Hollis [rhollis@cleanenergysystems.com]
Sent: 4/29/2020 4:40:40 PM
To: Ho, Yenhung [Ho.Yenhung@epa.gov]
CC: Albright, David [Albright.David@epa.gov]
Subject: RE: GSDT Notifications for CES Permit App

Thanks, Calvin. I appreciate the update.

Regarding the second item, does EPA have a simple chart or summary of the regulating bodies needed for Class VI permit approval? So long as we can show the agency needs the information as part of the permitting process, it should be no problem sharing the CBI with them – assuming, of course, they treat the information as confidential. I actually started a simple list after our 8-April meeting but if something similar already exists, it could be most helpful.

Call any time. I have a few meetings Thursday morning and one Friday afternoon but am otherwise open.

Kind Regards,
-Rebecca

Rebecca Hollis
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From: Ho, Yenhung <Ho.Yenhung@epa.gov>
Sent: Tuesday, April 28, 2020 4:26 PM
To: Rebecca Hollis <rhollis@cleanenergysystems.com>
Cc: Albright, David <Albright.David@epa.gov>
Subject: RE: GSDT Notifications for CES Permit App

Hi Rebecca,

Hope you are doing well too.

I will be connecting you with our contractor (Cadmus) soon so that CES can submit the CBI to Cadmus first. And by then I will provide you an update on the instruction for transmitting the files as well.

I also wanted to let you know that the State Water Board (and possibly CalGEM) is asking for a copy of the CBI, and I am giving you a call this Thurs/Fri to discuss the request.

Regards,
Calvin

Calvin Ho
Groundwater Protection Section

Water Division (WTR-4-2)
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
415-972-3262

From: Rebecca Hollis <rhollis@cleanenergysystems.com>
Sent: Tuesday, April 28, 2020 3:22 PM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>
Cc: Albright, David <Albright.David@epa.gov>
Subject: RE: GSDT Notifications for CES Permit App

Hi Calvin,

I hope you are staying safe and staying healthy.

I just wanted to check in. I don't believe we have received instructions for transmitting the Narrative version containing confidential business information (CBI). Any updates you could provide would be appreciated.

As always, let us know if you have any questions or need anything else.

Best Regards,
-Rebecca

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From: Rebecca Hollis
Sent: Wednesday, March 25, 2020 10:02 AM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>
Cc: Albright, David <Albright.David@epa.gov>
Subject: RE: GSDT Notifications for CES Permit App

Dear Calvin,

Thank you very much for the letter. This is fantastic news. We very much look forward to progressing into the next stage of the application process, the technical review. We will be sure to be available and responsive to any questions or clarification requests EPA may have on the submitted material.

Please stay safe and healthy during these uncertain times.
As a quick update on our end, CES remains open for business although employees have been instructed to work from home for at least the next few weeks. So, if you need to reach me please call my cell.
We are working through some of the inefficiencies of having moved to a remote staff, so may be a little slower to respond than usual, but rest assured that work is still progressing.

Please let me know if you have any questions.

Thank you again and best regards,
-Rebecca

Rebecca Hollis
Director Business Development -

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From: Ho, Yenhung <Ho.Yenhung@epa.gov>
Sent: Monday, March 23, 2020 4:45 PM
To: Rebecca Hollis <rhollis@cleanenergysystems.com>
Cc: Albright, David <Albright.David@epa.gov>
Subject: RE: GSDT Notifications for CES Permit App

Hi Rebecca,

Please see the attached letter. Let us know if you have questions about the letter.

Regards,
Calvin

Calvin Ho
Groundwater Protection Section
Water Division (WTR-4-2)
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105
415-972-3262

From: Rebecca Hollis <rhollis@cleanenergysystems.com>
Sent: Wednesday, March 11, 2020 11:32 AM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>; Albright, David <Albright.David@epa.gov>
Cc: 'Wayne Rowe' <rowe5@slb.com>; 'Wade Zaluski' <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi Calvin,

Thank you again for the call last week regarding our Class VI permit application for the Mendota plant in California. I have since spoke with our team and I wanted to follow up on a few items.

First, regarding the "Proposed Stimulation Program" (included on page 76 of the Narrative, Section 5.1). They confirmed that there is no plan, or need for stimulation. Stimulation would only be contemplated if the permeability (injectivity) of the injection formations were a couple orders of magnitudes lower than what is indicated at the Mendota site.

Second, in regards to secure transfer of the file containing CBI, we like the idea of password protecting the file as an added layer of security. This is something we can easily do and makes sense, especially if you are also familiar with the process/have done this in the past.

When we do send over the file (Narrative) containing CBI, we can include a short note describing the confidential information and why we are requesting it be treated as such. This can support EPA's regional council making a determination about the request. In summary, and as you know from our discussion a few weeks back on this, we are requesting only that certain figures contained within the Project Narrative be treated as CBI. These figures contain seismic data (or derivatives) that were licensed by CES from an outside 3rd party (SEI) – that is, CES does own the information. We have received permission from SEI to share the information with EPA for the purposes of our Class VI permit application evaluation but should these CBI images were released to others, CES would be in breach of the licensing agreement with SEI. Hence why the specific figures/images were redacted from our initial submission.
The Narrative file we plan to send with CBI includes a clear marking on the cover page and on each CBI figure, "This image displays (SEI, 2019) data and it is marked as Confidential Business Information."

We will wait for your instructions on the approve method of electronic confidential file transfer.

In the meantime, let me know if you have any questions or need anything else.

Thanks again and best regards,
-Rebecca

Rebecca Hollis
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From: Rebecca Hollis
Sent: Monday, March 2, 2020 3:56 PM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>; Albright, David <Albright.David@epa.gov>
Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi Calvin, David,

Happy Monday.

I just wanted to check in to see if there was any resolution regarding the electronic transmission of CBI. Last I recall, your regional IT security office identified an authorized file transfer service but was checking with HQ to make sure it can be used with CBI.

Thanks again and best regards,
-Rebecca

Rebecca Hollis
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From: Ho, Yenhung <Ho.Yenhung@epa.gov>
Sent: Wednesday, February 19, 2020 10:43 AM
To: Rebecca Hollis <rhollis@cleanenergysystems.com>; Albright, David <Albright.David@epa.gov>
Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi Rebecca,

We will let you know if we have questions about the application material.

Thanks,
Calvin

From: Rebecca Hollis <rhollis@cleanenergysystems.com>
Sent: Tuesday, February 18, 2020 5:16 PM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>; Albright, David <Albright.David@epa.gov>
Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

OK, great!
I have completed the submission accordingly. Thank you.

Please let us know if you would like to set up a meeting to walk through our application material and/or any other questions you may have.

Thanks again and happy Tuesday,
-Rebecca

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From: Ho, Yenhung <Ho.Yenhung@epa.gov>
Sent: Tuesday, February 18, 2020 4:48 PM
To: Rebecca Hollis <rhollis@cleanenergysystems.com>; Albright, David <Albright.David@epa.gov>

Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi Rebecca,

Yes, we concur with this approach. Thanks. Calvin

From: Rebecca Hollis <rhollis@cleanenergysystems.com>
Sent: Tuesday, February 18, 2020 12:14 PM
To: Ho, Yenhung <Ho.Yenhung@epa.gov>; Albright, David <Albright.David@epa.gov>
Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi Calvin,

Thank you for the prompt and detailed response.

Per your recommendation, we reviewed Section 3.1.5, "Pre-Operational Testing Program" of the *Recordkeeping, Reporting, and Data Management Guidance for Owners and Operators*. After an internal discussion, we believe the document we prepared titled, "Attachment G: Construction Details" contains the relevant information on injection well construction, pre-injection testing plan, test procedures, etc. required for the "Pre-Operational Testing" module of the GS Data Tool.
As you may recall, Attachment G was one of the documents we were not sure where to upload in the GS Data Tool during our initial submission. After consulting EPA, we added it to the Project Information Tracking module (Initial Permit Application tab, Item 4) – email attached for reference only. Given the RRDM guidance, it make sense that this detail would also apply to the "Pre-Operational Testing" module. So, I have uploaded Attachment G to this module.

As for the Proposed Pre-Operational Testing Schedule, we were able to locate and download a Testing and Monitoring Template (Excel file) from EPA. We have completed this template for the proposed Mendota site and uploaded it as well to the "Pre-Operational Testing" module. So, the "Welcome" tab of the module would look like this:

Attachment G: Construction Details

TM_Spreadsheet_Template.xlsx

Please advise if you concur with this approach.
Since no wells have been drilled or field samples collected yet, the remaining tabs were fairly simple to complete.

If you agree, I believe we can submit the "Pre-Operational Testing" module today, which should, complete our submission for the Mendota site.

Thanks again,
-Rebecca

Rebecca Hollis
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From: Ho, Yenhung <Ho.Yenhung@epa.gov>
Sent: Friday, February 14, 2020 3:08 PM
To: Rebecca Hollis <rhollis@cleanenergysystems.com>; Albright, David <Albright.David@epa.gov>
Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi Rebecca,

CES is required to submit into the "Pre-Operational Testing" module a proposed pre-operational well and formation testing program that meets the requirements of 40 CFR 146.87. See Section 3.1.5 of the Recordkeeping, Reporting, and Data Management Guidance for Owners and Operators (attached).

Our regional IT security office identified an authorized file transfer service, but is checking with HQ to make sure it can be used where CBI is involved. We will let you know as soon as we hear back.

Thanks,
Calvin

Calvin Ho
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From: Rebecca Hollis <rhollis@cleanenergysystems.com>
Sent: Thursday, February 13, 2020 1:10 PM
To: Albright, David <Albright.David@epa.gov>; Ho, Yenhung <Ho.Yenhung@epa.gov>
Cc: Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

David and Yenhung,

First, thank you for the call this morning Yenhung, and for taking the time to talk through this a bit.

I spoke again with the team and we believe we can fill in references to the requested information in the "Alt PICS Timeframe Demonstration" module. That is, we will indicate where in the application material we already submitted the requested info/data is presented. I believe we can get this uploaded and submitted today.

The "Pre-Operational Testing" module however would take a bit more effort. The majority of the tabs we can fill in with "0" meaning no wells drilled or data collected yet. However, the first tab, "Welcome," requires two documents:

> "Upload a **proposed pre-operational testing plan** pursuant to 40 CFR 146.82(a)(8) here. Please make sure the most up-to-date version of the plan is uploaded."
>
> "Upload a **proposed pre-operational testing schedule** here. Pursuant to 40 CFR 146.87(f), this schedule must be submitted 30 days prior to conducting the first test, and any schedule changes must be submitted 30 days in advance of the next scheduled test."

So, we would still appreciate your guidance on this module.
As well as information on how to safely transmit a copy of our Project Narrative that includes CBI.

Thanks again,
-Rebecca

Rebecca Hollis
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From: Rebecca Hollis
Sent: Thursday, February 13, 2020 10:10 AM
To: Albright, David <Albright.David@epa.gov>
Cc: Ho, Yenhung <Ho.Yenhung@epa.gov>; Wayne Rowe <rowe5@slb.com>; Wade Zaluski <WZaluski@slb.com>
Subject: RE: GSDT Notifications for CES Permit App

Hi again, David,

We reviewed the feedback provided by Molly. Then went back and took a harder look at GS Data Tool modules: Pre-Operational Testing, and Alt PICS Timeframe Demonstration, as well as our application material. The short summary is that we did not submit information through the two modules because we felt at our current stage (Preconstruction) we have not drilled wells or collected the site-specific detail requested. That being said, much of the information is presented (based on computational modeling) throughout other sections of our application. So, if EPA requires these two modules be completed at this phase, we can work to provide as much info as possible at this time.

In our re-review, I did see the check boxes in the Project Information module that I did check for both the Pre-Operational Testing and Alt PICS Timeframe Demonstration modules. So, this was indeed an inconsistency with our application, my mistake, and a good catch by EPA.

To provide more detail on the modules and our reasoning for not submitting them at this time:

> **"Pre-Operational Testing:** this module supports the submission of geologic, hydrogeologic, and well-related data collected during the construction of a new well or during/after conversion of a Class VI well prior to commencing injection pursuant to 40 CFR 146.82(c)."

- This was not submitted because CES is in the Preconstruction Phase. There is no well-related data collected because a well has not been drilled at this time.
- Operational testing schedules are presented in the Attachments submitted under Project Plan Submissions.

> **"Alternative PISC Timeframe Demonstration:** this module is used to submit an alternative PISC timeframe demonstration by owners or operators who opt to make this demonstration pursuant to 40 CFR 146.93(c)."

- As per our evaluation in Section 5 of ATTACHMENT E: POST-INJECTION SITE CARE AND SITE CLOSURE PLAN 40 CFR 146.93(a), This pre-construction application is proposing a ten year post monitoring period following the cessation of injection operations. This alternative post injection site care (PISC) timeframe, pursuant to 40 CFR 146.93(c)(1) is based on the computational modeling to delineate the AoR; predictions of plume migration, pressure decline, and carbon dioxide trapping. Once site-specific (characterization well, 3D seismic, etc.) has been acquired, CES will either complete the alternative post-injection site care plan or modify the monitoring time-frame for the "*Monitoring Above the Confining Zone*" and "*Carbon Dioxide Plume and Pressure Front Tracking*" sections of this attachment.
- Because this conclusion is based on only computational modeling, CES concluded it was not the time to submit this module. The requested items to submit are presented in the submitted Narrative and Attachments A through Attachments H.

Please advise if EPA requires CES to submit these modules at this time.

Thank you again,

-Rebecca

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From: Rebecca Hollis
Sent: Tuesday, February 11, 2020 9:59 AM
To: Albright, David <Albright.David@epa.gov>
Cc: Ho, Yenhung <Ho.Yenhung@epa.gov>
Subject: RE: GSDT Notifications for CES Permit App

Thank you, David.

I will review this with the team and get back to you ASAP.

Thanks again for your assistance in this matter.

Best,
-Rebecca

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From: Albright, David <Albright.David@epa.gov>
Sent: Tuesday, February 11, 2020 9:44 AM
To: Rebecca Hollis <rhollis@cleanenergysystems.com>
Cc: Ho, Yenhung <Ho.Yenhung@epa.gov>
Subject: FW: GSDT Notifications for CES Permit App

Hi Rebecca, below is the text of the message sent to me by Molly McEvoy, per our discussion a moment ago. We can discuss at your convenience.

Thanks, David

Hi David,

The information CES submitted via the GSDT is formally submitted to EPA, but I'm not sure if they are done submitting for this application.

I would expect to see submissions into the Pre-Operational Testing module. They did not submit anything to this module but it's possible they included the information required under 146.82(a)(8) in another module. They also have not submitted data into any of the optional modules (e.g., Alternative PISC Timeframe Demonstration).

I'm looking at their form submissions and it appears CES marked in the Project Information module that they would be submitting data into the Pre-Operational Testing module and Alt PICS Timeframe Demonstration module. I can't tell for sure from their submissions, so it may be necessary to confirm with CES that they are done submitting information to EPA.

I'll work on adding your emails to the email notifications list for this project. Let me know if you need any other help with the GSDT.

Thanks,
Molly