From: Doug Wight (Generation - 34) [/O=DOMINION/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DOUGLA7]
Sent: 1/9/2016 8:20:18 PM
To: John A Cima (Generation - 34) [/O=DOMINION/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=JOHN171d28]; JOHN CIMA [Jcima@schnabel-eng.com]
Subject: Fwd: Pond D Toe Drain Sampling Results

Sent from my iPhone

Begin forwarded message:
From: Scott Quinlan <s.quinlan@gaiconsultants.com>
Date: January 9, 2016 at 12:36:03 PM EST
To: "Michael A Glagola (Generation - 34)" <michael.a.glagola@dom.com>
Cc: "Kenneth Roller (Services - 6)" <kenneth.roller@dom.com>, "Dale L Johnson (Generation - 34)" <Dale.L.Johnson@dom.com>, John Glover <jglover@gloverconstruction.com>, "Doug Wight (Generation - 34)" <doug.wight@dom.com>, "Michael J Winters (Generation - 34)" <Michael.J.Winters@dom.com>, John Klamut <J.Klamut@gaiconsultants.com>, John DeBarbieri <J.DeBarbieri@gaiconsultants.com>
Subject: RE: Pond D Toe Drain Sampling Results
Got it – thanks Mike.

From: Michael A Glagola (Generation - 34) [mailto:michael.a.glagola@dom.com]
Sent: Saturday, January 09, 2016 10:45 AM
To: Scott Quinlan <s.quinlan@gaiconsultants.com>
Cc: Kenneth Roller (Services - 6) <kenneth.roller@dom.com>; Dale L Johnson (Generation - 34) <Dale.L.Johnson@dom.com>; John Glover <jglover@gloverconstruction.com>; Doug Wight (Generation - 34) <doug.wight@dom.com>; Michael J Winters (Generation - 34) <Michael.J.Winters@dom.com>; John Klamut <J.Klamut@gaiconsultants.com>; John DeBarbieri <J.DeBarbieri@gaiconsultants.com>
Subject: Re: Pond D Toe Drain Sampling Results

Currently, in order to meet our Thursday deadline of collecting that flow from the tow drain, glover is obtaining the pumps, pipe, level floats and plug to direct the flow up to the D pond. Dale will provide a description Monday morning as to the plan for installation to provide to PGE and GAI for review. This is not necessarily the final design installation but just gets us in compliance for Thursday. We can make tweaks this week as needed without halting the installation.

Mike

Sent from my iPhone

On Jan 9, 2016, at 8:43 AM, Scott Quinlan <s.quinlan@gaiconsultants.com> wrote:
Ken:

Thanks for getting back with me on this.

Item 1

I think separating is a good approach since it is essentially what DEQ says could be done to convert 010 back to S107 (for industrial stormwater discharges). I believe this is the best approach as well and we will pursue this for now.

Item 2
I agree the drainage area may be influenced by construction activities at some point during the closure of Pond D and could result in a hit should the area not be protected.

Item 3
We'll see how the Outfall 010 compares to the toe drain entering the inlet to see if there are in fact wide variations in the qualities since we'll be sampling next week. This can be used as a contingent plan.

Sincerely,

Scott C. Quinlan, PE
Director – Energy Water Resources Engineering and Planning

GAI Consultants, Inc.
500 Cranberry Woods Drive, Cranberry Township, PA 16066
D 412.399.5385 <image015.png> | **M** 412.584.4508 | **F** 724.770.2011 |
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<image022.png>

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From: Kenneth Roller (Services - 6) [mailto:kenneth.roller@dom.com]
Sent: Thursday, January 07, 2016 6:57 PM
To: Scott Quinlan <s.quinlan@gaiconsultants.com>
Cc: Michael A Glagola (Generation - 34) <michael.a.glagola@dom.com>; Dale L Johnson (Generation - 34) <Dale.L.Johnson@dom.com>; John Glover <jglover@gloverconstruction.com>; Doug Wight (Generation - 34) <doug.wight@dom.com>; Michael J Winters (Generation - 34) <Michael.J.Winters@dom.com>; John Klamut <J.Klamut@gaiconsultants.com>; John DeBarbieri <J.DeBarbieri@gaiconsultants.com>
Subject: RE: Pond D Toe Drain Sampling Results

Scott,

The data for the toe drain look good and suggest that we would be OK not relocating the toe drain if this was the only contribution to the discharge. However, I believe that there is a good chance that we will not be able to comply with the limits on Outfall 010 due to the stormwater component, which, based on my experience, will probably contain zinc and probably nickel at concentrations above the limits. Typically DEQ doesn't apply limits to stormwater discharges, and the limits on Outfall 010 wouldn't have been applied if it consisted of stormwater only. I discussed this with DEQ and worked with them to include a new condition I.A.15 in the permit. This condition applies to the stormwater-only portion of Outfall 010 and becomes effective should we make a successful demonstration to DEQ confirming that all groundwater contributions to the Outfall 010 discharge have been removed (see new condition I.F.23 below). In addition to the stormwater component to Outfall 010 there may also be a contribution of pollutants from the sediment that has

accumulated in the discharge pipe that could result in permit limit violations with or without stormwater (we are going to test this out with the sampling next week).

There are a couple of ways that we could possibly comply with the limits:

1. <!--[if !supportLists]--><!--[endif]-->As I see it, separating the toe drain from the stormwater would probably be the cleanest long-term option that would answer almost every concern expressed about the discharge. We would need to be able to make the demonstration in I.F.23 to make this worthwhile.

2. <!--[if !supportLists]--><!--[endif]-->We could also test the combined stormwater/toe drain discharge and get a better handle on whether the combined discharge would meet the limits. This could be risky, especially given all of the work that is going on in the drainage area at the toe of Pond D.

3. <!--[if !supportLists]--><!--[endif]-->There is one other option that I thought of, which would be to ask DEQ to approve sampling of the toe drain-only (i.e., where it enters the riser box) as the point of compliance for Outfall 010. This makes sense to me since the limits on Outfall 010 were developed for this portion of the discharge. I discussed this briefly with DEQ before the holidays and they said it seemed doable, and that they could probably do it without modifying the permit. They did say that some type of demonstration would be necessary to show that under dry weather conditions there was no significant difference between the toe drain and the discharge from the pipe.

I'm not sure this is the response you wanted. I'm in favor of path 1 as long as we can make the demonstration in I.F.23.

Ken

23. Outfall 010 Groundwater (Toe Drain) Removal and Re-designation to S107.
Upon successful demonstration to and written approval from DEQ confirming that all groundwater contributions to the Outfall 010 discharge have been removed, the requirements of Part I.A.15 of this permit shall become effective and supersede the requirements of Part 1.A.8. The groundwater contributions include both the infiltration through the earthen berm as well as groundwater diverted around the impoundment. Should the permittee separate and remove all groundwater contributions to the discharge, then the discharge would be comprised of only industrially influenced stormwater. Stormwater-only discharges from this outfall would be designated as Outfall S107 and governed by the requirements of Part 1.A.15, Part I.E and Part I.F18. Should the permittee pursue separation of the groundwater contributions to the discharge, a demonstration plan shall be submitted to DEQ for review and approval. This demonstration plan shall consider, at a minimum: observations of the outfall during dry-weather with variable antecedent precipitation conditions to confirm no discharge; seasonal wet-weather conditions to include potential inflow and infiltration contributions; other information as appropriate, such as design schematics, to support a conclusion that groundwater contributions have been removed from the discharge.

From: Scott Quinlan [mailto:s.quinlan@gaiconsultants.com]
Sent: Thursday, January 07, 2016 12:02 PM
To: Kenneth Roller (Services - 6)
Cc: Michael A Glagola (Generation - 34); Dale L Johnson (Generation - 34); John Glover; Doug Wight (Generation - 34); Michael J Winters (Generation - 34); John Klamut; John DeBarbieri
Subject: RE: Pond D Toe Drain Sampling Results

Ken:

Could you give me a "regulatory" confirmation that our design premise of intercepting the toe-drain flows and then allowing the isolated storm-water flows to continue to discharge to the river is acceptable? If this is the case, I believe that we can coordinate a quick interception plan for discharge of toe drain flows to pond D with PGE and Glover . In the future, this interception sump can then be converted to a permanent pump station to PWC. Let me know when you get a chance. Thanks.

Sincerely,

Scott C. Quinlan, PE
Director – Energy Water Resources Engineering and Planning

GAI Consultants, Inc.
500 Cranberry Woods Drive, Cranberry Township, PA 16066
T 724.770.2011 | **D** 412.399.5385 <image015.png> | **M** 412.584.4508 |
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From: Michael A Glagola (Generation - 34) [mailto:michael.a.glagola@dom.com]
Sent: Thursday, January 07, 2016 7:39 AM
To: Scott Quinlan <s.quinlan@gaiconsultants.com>
Cc: Dale L Johnson (Generation - 34) <Dale.L.Johnson@dom.com>; John Glover <jglover@gloverconstruction.com>; Doug Wight (Generation - 34) <doug.wight@dom.com>; Michael J Winters (Generation - 34) <Michael.J.Winters@dom.com>; Kenneth Roller (Services - 6) <kenneth.roller@dom.com>
Subject: RE: Pond D Toe Drain Sampling Results

Scott,

The results look good for the toe-drain. Based on the pending permit though we will have to redirect this flow back to the D pond. Would you be able to come up with a quick design that is agreed to by PGE so Glover Construction can install. I think we will have a little time after the water board meeting to implement, but we will need to move as quickly as possible.

Thanks,

Mike Glagola

Mike Glagola
Dominion Resources Services, Inc.
5000 Dominion Blvd.

Glen Allen, VA 23060
Tel: 804 273-2362
Cell: 804 513-8219

From: Scott Quinlan [mailto:s.quinlan@gaiconsultants.com]
Sent: Wednesday, December 23, 2015 2:02 PM
To: Kenneth Roller (Services - 6); Jason E Williams (Services - 6); Amelia H Boschen (Services - 6)
Cc: Michael A Glagola (Generation - 34); John Klamut; John DeBarbieri; Dylan Stow
Subject: RE: Pond D Toe Drain Sampling Results

Ken:

As requested, the table has been edited and a copy attached for your use. We will continue to update the table as additional sampling data is received. Let me know if you need anything else. Thanks.

Sincerely,

Scott C. Quinlan, PE
Director – Energy Water Resources Engineering and Planning

GAI Consultants, Inc.
500 Cranberry Woods Drive, Cranberry Township, PA 16066
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From: Kenneth Roller (Services - 6) [mailto:kenneth.roller@dom.com]
Sent: Tuesday, December 22, 2015 8:26 PM
To: Scott Quinlan <s.quinlan@gaiconsultants.com>; Jason E Williams (Services - 6) <Jason.E.Williams@dom.com>; Amelia H Boschen (Services - 6) <amelia.h.boschen@dom.com>
Cc: Michael A Glagola (Generation - 34) <michael.a.glagola@dom.com>; John Klamut <J.Klamut@gaiconsultants.com>
Subject: RE: Pond D Toe Drain Sampling Results

Scott,

I think we should change the title of the table to "Possum Point Toe Drain compared with Draft Limits for Outfall 010". I think we should also change the column heading "Pond D Outfall 010" to "Pond D Toe Drain". Outfall 010 consists of both the toe drain and stormwater, and these data are for the toe drain only.

Ken

From: Scott Quinlan [mailto:s.quinlan@gaiconsultants.com]
Sent: Tuesday, December 22, 2015 4:31 PM
To: Kenneth Roller (Services - 6); Jason E Williams (Services - 6); Amelia H Boschen (Services - 6)
Cc: Michael A Glagola (Generation - 34); John Klamut
Subject: Pond D Toe Drain Sampling Results

All:

As discussed during our call today, I have attached the initial round of sampling results for your review. Contact me if you have any questions. Thanks.

Sincerely,

Scott C. Quinlan, PE
Director – Energy Water Resources Engineering and Planning

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500 Cranberry Woods Drive, Cranberry Township, PA 16066
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