Singerman, Joel

From: Miller, John Y (DEC) <john.miller@dec.ny.gov>
Sent: Thursday, September 2, 2021 3:17 PM
To: Tsiamis, Christos; Van Rossem, Patrick J.
Cc: Prophete, Andrew A.; Hess, Juliana/NYC; Carr, Brian; Brown, Janet E (DEC); Eaton, Daniel J (DEC); Singerman, Joel; Garbarini, Doug
Subject: Re: Citizen's Former MGP Site- New Bulkhead Closure Concept and EPA Comment Responses

Hi Christos.

With receipt of your below email confirming EPA's approval of the Citizen MGP Remedial Design Addendum No. 6, the NYSDEC will now proceed with approval of the design modification.

Thanks

John B. Miller, P.E.
NYSDEC
Division of Environmental Remediation
625 Broadway, 12th floor
Albany, NY 12233-7014
Phone: (518) 402-9589

From: Tsiamis, Christos <Tsiamis.Christos@epa.gov>
Sent: Thursday, September 2, 2021 2:08 PM
To: Miller, John Y (DEC) <john.miller@dec.ny.gov>; Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Cc: Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>; Hess, Juliana/NYC <Juliana.Hess@jacobs.com>; Carr, Brian <Carr.Brian@epa.gov>; Brown, Janet E (DEC) <janet.brown@dec.ny.gov>; Eaton, Daniel J (DEC) <daniel.eaton@dec.ny.gov>; Singerman, Joel <Singerman.Joel@epa.gov>; Garbarini, Doug <Garbarini.Doug@epa.gov>
Subject: RE: Citizen's Former MGP Site- New Bulkhead Closure Concept and EPA Comment Responses

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Hi John.

Yes, we reviewed the design addendum No. 6 submitted for the citizen's wall and we concluded that it reflects the concept, for the bulkhead construction at the entry of the gas tunnel, that was presented and discussed during the July conference call between EPA, NYSDEC, National Grid and contractors. EPA has already provided approval for proceeding with that design. Here, I reiterate that approval.

I trust that this is what you were looking for. Please confirm.

Thank you.

Christos

From: Miller, John Y (DEC) <john.miller@dec.ny.gov>
Sent: Wednesday, September 1, 2021 11:39 AM
To: Tsiamis, Christos <Tsiamis.Christos@epa.gov>; Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Cc: Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>; Hess, Juliana/NYC <Juliana.Hess@jacobs.com>; Carr, Brian <Carr.Brian@epa.gov>; Brown, Janet E (DEC) <janet.brown@dec.ny.gov>; Eaton, Daniel J (DEC) <daniel.eaton@dec.ny.gov>; Singerman, Joel <Singerman.Joel@epa.gov>; Garbarini, Doug <Garbarini.Doug@epa.gov>
Subject: RE: Citizen's Former MGP Site- New Bulkhead Closure Concept and EPA Comment Responses

Hi Christos,

The request last week was related to the approval of the Citizens MGP Remedial Design Addendum No. 6 which was submitted by Arcadis on August 16th.

The NYSDEC has reviewed the addendum and is prepared to approve the modified design for the bulkhead closure. Before I do that I wanted to confirm you received the addendum since I know you were out on vacation at that time. It sounds like you are probably ok with it, but I am just making sure.

Thanks

John B. Miller, P.E.
NYSDEC
Division of Environmental Remediation
625 Broadway, 12th floor
Albany, NY 12233-7014
Phone: (518) 402-9589

From: Tsiamis, Christos <Tsiamis.Christos@epa.gov>
Sent: Wednesday, September 1, 2021 10:30 AM
To: Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Cc: Miller, John Y (DEC) <john.miller@dec.ny.gov>; Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>; Hess, Juliana/NYC <Juliana.Hess@jacobs.com>; Carr, Brian <Carr.Brian@epa.gov>; Brown, Janet E (DEC) <janet.brown@dec.ny.gov>; Eaton, Daniel J (DEC) <daniel.eaton@dec.ny.gov>; Singerman, Joel <Singerman.Joel@epa.gov>; Garbarini, Doug <Garbarini.Doug@epa.gov>
Subject: FW: Citizen's Former MGP Site- New Bulkhead Closure Concept and EPA Comment Responses

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Pat,

During the call last week, a request was made for written approval by EPA to proceed with the design of the Citizen's site bulkhead around the Grid gas tunnel. My July 20, 2021 e-mail below provided approval.

Please let me know if you have any further questions.

Sincerely,

Christos Tsiamis
Senior Project Manager
New York Remediation Branch
USEPA, Region 2
New York, NY

From: Tsiamis, Christos
Sent: Tuesday, July 20, 2021 4:46 PM
To: Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Cc: Miller, John Y (DEC) <john.miller@dec.ny.gov> (john.miller@dec.ny.gov) <john.miller@dec.ny.gov>; Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>; Hess, Juliana/NYC <Juliana.Hess@jacobs.com>; Carr, Brian <Carr.Brian@epa.gov>
Subject: RE: Citizen's Former MGP Site- New Bulkhead Closure Concept and EPA Comment Responses

Pat,

Thank you for arranging the presentation, today, that allowed us to get more information on the proposed new approach for the closure of the Public Place bulkhead at the gas shaft location.

This is to let you know that EPA approves the concept, for the closure of the bulkhead, that was presented in the attachments of your e-mail below and was discussed in further detail during today's conference call. However, as I discussed, although we agree with the concept from a structural point of view, we still have concerns that a preferential path still remains for upland contamination to leak into the canal and compromise the canal remedy. This, we believe, is something that could be addressed separately.

In the interest of completing the bulkhead work at Public Place, following this approval, please provide EPA and its contractor (copied here) a detailed 65% (or higher completion) design for our review and approval.

Sincerely,

Christos Tsiamis
Senior Project Manager
New York Remediation Branch
USEPA, Region 2
New York, NY

From: Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Sent: Wednesday, July 14, 2021 4:05 PM
To: Tsiamis, Christos <Tsiamis.Christos@epa.gov>
Cc: Miller, John Y (DEC) <john.miller@dec.ny.gov> (john.miller@dec.ny.gov) <john.miller@dec.ny.gov>; Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>
Subject: Citizen's Former MGP Site- New Bulkhead Closure Concept and EPA Comment Responses

Christos,

This e-mail follows up our telephone conversation from yesterday when we discussed the status of the Citizen's bulkhead closure design in the area of the gas tunnel. We appreciate the input that you provided on the soft shoreline concept via the May 4, 2021 email below, and during the May 11, 2021 conference call between USEPA, the NYSDEC and National Grid. Based on USEPA's input, our team continued to review the bulkhead closure approach near the existing gas transmission tunnel shaft and we have developed an alternative to the previously proposed soft shoreline concept. This alternative concept includes installing a new sheet pile wall along the Gowanus Canal in front of the existing gas transmission tunnel shaft and leaving the remainder of the new bulkhead barrier wall at full design height. Draft drawings illustrating the alternative closure concept are attached to this email.

For completeness, also please find the attached responses and supporting information in response to USEPA's input on the soft shoreline concept. These responses are being provided here because they provide information that is also relevant to the new bulkhead closure concept. The responses to USEPA's comments include the following:

- A summary of the background and basis for reviewing alternative closure approaches including the soft shoreline bulkhead closure concept in response to question #1 below.
- Responses to USEPA comments on the soft shoreline concept.
- Tables, figures, logs, and similar supporting information referenced in the responses to USEPA comments.

As discussed we are interested in reviewing the new alternative concept with you and your team and we are available for a conference call on Thursday of this week or Tuesday of next week to discuss any initial comments or questions that you may have. Thanks.

Pat

917 572 4075

From: Tsiamis, Christos <Tsiamis.Christos@epa.gov>
Sent: Tuesday, May 11, 2021 10:49 AM
To: Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Cc: Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>
Subject: EXT || FW: Citizen's Former MGP Site- Information Requested For the Conceptual Soft Shoreline Alternative Near the Gas Tunnel

Pat,

In the comments that I had sent you, we referenced certain attachments which, I believe, were not attached in my original comments e-mail. Here then are the two attachments mentioned in the comments.

Let me know if you have any questions.

Thank you.

Christos

From: Tsiamis, Christos
Sent: Tuesday, May 4, 2021 12:51 PM
To: Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Cc: Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>
Subject: RE: Citizen's Former MGP Site- Information Requested For the Conceptual Soft Shoreline Alternative Near the Gas Tunnel

Pat,

We have reviewed the proposed approach and we have a number of concerns. We have provided specific comments in the attached document. Here, I would like to outline EPA's three major concerns:

1. A clear rationale has not been provided as to why a soft, sloped shoreline, with cut-off sheet piles below the existing sheet pile elevation, would be the most effective means of protecting the tunnel shaft and preventing upland tar contamination from seeping into the remediated canal.
2. It appears that the structural stability, in the long term, of the proposed configuration has not been adequately evaluated and serious concerns of future movement of the structure, as explained in our comments, are a concern.
3. The proposed configuration would not effectively prevent site tar contamination from escaping to the canal through conduits around the tunnel shaft. To ensure protectiveness of the canal remedy, a more comprehensive approach would have to include stabilization of the tar sources at depth in the upland area surrounding the tunnel.

Once you have provided responses to our comments and concerns, we would be happy to convene a meeting to discuss future action.

Sincerely,

Christos Tsiamis
Senior Project Manager
New York Remediation Branch
USEPA, Region 2
New York, NY

From: Van Rossem, Patrick J. <Patrick.VanRossem@nationalgrid.com>
Sent: Tuesday, April 13, 2021 4:21 PM
To: Tsiamis, Christos <Tsiamis.Christos@epa.gov>
Cc: Prophete, Andrew A. <Andrew.Prophete@nationalgrid.com>
Subject: Citizen's Former MGP Site- Information Requested For the Conceptual Soft Shoreline Alternative Near the Gas Tunnel

Hi Christos,

It was good talking with you yesterday about our request for a conference call with National Grid and NYSDEC to discuss the proposed soft shoreline alternative for the Citizens bulkhead area around the National Grid natural gas transmission tunnel shaft on Citizens Parcel II. As you requested, I am providing you information in this email and attachments to help describe the soft shoreline concept that is proposed for this area, and the attachments include supporting photographs and draft drawings. The photographs show the existing tunnel shaft, the concrete "collar" that overhangs the top of the shaft, and also the space that we want to close between the new bulkhead and the sides of the tunnel shaft to prevent the loss of fill material from the upland area behind the bulkhead.

The natural gas transmission tunnel was constructed in 1924 and contains active cast iron and steel gas lines that provide critical gas supply to the Red Hook area of Brooklyn. Following the installation of the last steel king piles immediately adjacent to the tunnel shaft in May of 2020, real-time movement monitoring indicated that the tunnel shaft experienced both horizontal and vertical displacement. Between May and October 2020, approximately 0.4 inches of horizontal displacement (towards the canal) and approximately 0.5 inches of vertical displacement (settlement) were

measured at the optical monitoring points mounted on the tunnel shaft. The settlement is likely related to consolidation of soils around the tunnel shaft following the installation of the king piles near the shaft. In the fall of 2020, other settlement was observed across the canal at the National Grid Citizens Gate Station during the pile driving activities for the new Gate Station bulkhead.

Considering the age of the critical gas facilities in the tunnel and the observed movement of the existing tunnel shaft, any additional activity around the tunnel shaft poses significant safety and service interruption concerns. Based on that, we decided to evaluate alternatives for completing this area of the bulkhead because the existing grouting based approach for this area has the potential to displace or consolidate subsurface soils immediately adjacent to and/or below the shaft, and potentially cause additional movement of the tunnel shaft. The grouting approach also would require additional physical removal and/or modification of the concrete collar that is attached to the tunnel shaft which also has the potential for affecting the stability of the tunnel shaft. The poor soil conditions surrounding the existing tunnel shaft and the proximity of the Bond-Lorraine Street sewer (located immediately behind/north of the existing tunnel shaft) also present additional limitations on the options and the ability to stabilize/support the shaft itself to help prevent future movement.

We evaluated several conceptual alternatives for the area around the tunnel shaft, and the evaluation lead to the soft shoreline concept depicted in the attached draft drawings (plan view, profile view, and representative sections are provided). This concept generally involves sloping back the land immediately behind the bulkhead on each side of the existing tunnel shaft to reduce the soil loading and cutting down the bulkhead piling itself at or slightly below mean sea level to relieve groundwater mounding and the resulting hydraulic load supported by the bulkhead. The concept also includes sheet piling on the canal side of the tunnel shaft between the two last king piles. Permeable treatment media (AquaGate or similar) would be used as fill material within the tidal zone of the soft shoreline behind the bulkhead to address dissolved-phase constituents in groundwater. In addition, armoring (in the form of riprap-filled gabion baskets) would be included along the restored slope to prevent erosion from tidal forces. The soft shoreline concept: (1) would address the spaces between the new bulkhead and the sides of the existing tunnel shaft (preventing the loss of fill material from behind the bulkhead); (2) minimizes future work on/adjacent to the existing tunnel shaft to reduce the potential to cause additional movement/settlement; and (3) does not restrict the anticipated future Gowanus Canal Superfund Site remediation activities in the canal adjacent to the tunnel.

As discussed, we are interested in scheduling a conference call about this after you finish reviewing the information in this e-mail. Please let me know if you have any questions, or would like any additional information. Thanks.

Pat

Patrick J. Van Rossem
Principal Program Manager
National Grid
Site Investigation & Remediation Dept.
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(917) 572-4075 Mobile

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