To: DelRosario, Ross[delrosario.rosauro@epa.gov]
Cc: David.Klatt@CH2M.com[David.Klatt@CH2M.com]; 'Sarah Meyer'[smeyer@naturalrt.com]
From: Prasad, Narendra M
Sent: Thur 5/9/2013 4:31:57 PM
Subject: FW: North Station - update to water table well installation approach
IBS Well Install Decision Tree 130509.pdf

Ross,

We accepted the rewording as suggested and attached a revised diagram.

Regarding the other comments, well construction details are in the USEPA-approved SOPs for the Multi-Site Program. For example, SOP SAS-05-03 states that 2 feet of sand will be placed on top of the filter pack to prevent intrusion of overlying grout material. For the shallow wells, hydrated bentonite will be used to fill annular space, not grout, so the additional 2 feet of sand is not necessary and shallow wells can be constructed as outlined in the diagram. Notes have been added to the diagram with seal details for shallow and deep wells. Similarly, well cap/flush mounting/finishing will be performed according to the same SOP. Well construction details are recorded during installation on the well installation log (template in the SOP).

A quick response would be appreciated as the field team will begin drilling Monday or Tuesday next week and they will be installing wells.

Thanks,

Naren

Naren M. Prasad, P.E., MPH, LEED AP

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Providing support for Integrys Energy Group, Integrys Energy Services, Integrys Transportation Fuels, Michigan Gas Utilities, Minnesota Energy Resources, North Shore Gas, Peoples Gas, Upper Peninsula Power Company and Wisconsin Public Service.

From: DelRosario, Ross [mailto:delrosario.rosauro@epa.gov]
Sent: Wednesday, May 08, 2013 7:48 AM
To: Prasad, Narendra M
Cc: David.Klatt@CH2M.com
Subject: FW: North Station - update to water table well installation approach

Naren,

See attached. Please revise accordingly and submit revised diagram to our office. Thanks.

Ross

From: David.Klatt@CH2M.com [mailto:David.Klatt@CH2M.com]
Sent: Tuesday, May 07, 2013 1:10 PM
To: DelRosario, Ross
Cc: Erik.Spande@CH2M.com
Subject: FW: North Station - update to water table well installation approach

Hi Ross,

Erik Spande reviewed the decision tree and added some comment boxes directly to the attached PDF. Generally speaking, the approach appears reasonable. However, we suggest some

modifications and clarifications as noted in the PDF. I believe the comments are pretty self explanatory.

If NRT needs clarifications, I suggest that they could directly contact Erik at the number listed below, if it's OK with you.

Thanks,

Dave

David Klatt

Project Manager

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From: Klatt, David/CHC
Sent: Monday, May 06, 2013 8:51 AM
To: Spande, Erik/CHC
Subject: FW: North Station - update to water table well installation approach

From: Prasad, Narendra M [mailto:NMPrasad@integrysgroup.com]
Sent: Thursday, April 25, 2013 10:19 AM
To: 'DelRosario, Ross'
Cc: Klatt, David/CHC; 'Sarah Meyer'; Wilson, Doyle
Subject: North Station - update to water table well installation approach

Ross,

Since approval of the North Station Site-Specific Work Plan we have fine-tuned our approach for the installation of well nests in subsequent PGL work plans. These adjustments are illustrated in the attached "Decision Tree" which was actually submitted with the Hough and Crawford Group II work plans. This is based on our field observations of site geology and hydrogeology.

The primary changes between the North Station Work Plan and the attached decision tree are:

1) Decision tree specifies minimum fill thickness (6 feet) required for installing water table wells

2) Decision tree specifies well screen length options

The additional details were added to the decision tree to provide field teams with guidance on when it is appropriate to install water table wells. These shallow wells will monitor groundwater

elevations and quality in surface fill that, in some cases, may only be seasonally saturated. Groundwater in the surface fill is likely perched and has greater probability of exhibiting the presence of MGP residuals, if present, compared to deeper groundwater in the clay unit.

Groundwater in the clay unit is likely hydraulically separated from perched groundwater in the shallow fill. Piezometers installed deeper in the silty clay are intended to establish the vertical extent of MGP residuals in groundwater.

Please let me know if you have any question or would like to discuss.

Thanks,

Naren

Naren M. Prasad, P.E., MPH, LEED AP

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From: Sarah Meyer [mailto:smeyer@naturalrt.com]
Sent: Wednesday, April 24, 2013 5:09 PM

To: Prasad, Narendra M
Subject: North Station - update to water table well installation approach

Naren-

I would like to update our water table well installation approach at North Station slightly based on what we have proposed since North Station SSWP was approved. We can discuss, but I wanted to get this to you in writing so you could look it over. And if you agree that we should make North Station consistent, then we should probably let EPA know the following:

Sarah L. Meyer

Senior Scientist

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