

Prysby, Mike (DEQ)

From: Matta, Samir <SFMatta@lan-inc.com>
Sent: Wednesday, March 26, 2014 2:22 PM
To: Prysby, Mike (DEQ); Busch, Stephen (DEQ); Arduin, Jim (DEQ)
Cc: Daugherty Johnson; Brent Wright (bwright@cityofflint.com)
Subject: Bray Road Alternative Separation Concepts.
Attachments: Piling Concept 3-24-14 (2).pdf - Adobe Acrobat.pdf; MC-3500 Chamber from ADS StormTech System.pdf

Hi All,

As requested, the following two concepts are being discussed with the City and ultimately with the contractor to see which one is more in line with the project budget and can be accomplished in a timely matter. The attached concept shows sheet piling being proposed which will be terminated at the designated height needed to achieve a 2' freeboard along the alignment highlighted in RED.

The other concept which we discussed on the phone will entail using a light weight storm chamber (see attachment) fastened to a 4x8 plywood sheeting, attached together, with a geotextile fabric along the back side to follow the same alignment as the sheet piling option. It will be placed directly on the existing lime sludge in front of the disposal area for separation.

Please review, let me know if you have any questions and we can further discuss on Monday.

Thanks.

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 Senior Project Manager



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**Flint WTP Improvements
Bray Road Lime Sludge Lagoon
MDEQ Comments
March 21, 2014**

1. The placement of the proposed liner and berm fails to establish physical separation between the lime sludge collection area and concrete fill area. For complete separation of these areas, the berm needs to be constructed down to native soil.

As proposed, this appears to constitute the first step towards a "cap-in-place" of the existing materials. If waste is left in place within the berm, the city will be required to construct the berm to meet Part 115 cap requirements. In addition, long term groundwater monitoring, financial assurance, closure and post closure plans will be required.

2. Please provide a residuals management plan for the lime sludge collection area. In addition to removal of new lime sludge produced, the plan must also include the gradual removal of existing lime sludge.
3. The working depth of the lime sludge collection area does not appear to meet 10-States Standard's minimum depth of 5 feet. The available volume appears to be 60,000 cubic yards based on 2.6 feet of working depth. Please confirm this. What is the surface area of the lagoon? Please provide a basis of design that includes the amount of lime sludge produced at average day demand and the available days of storage at this production rate. These parameters will need to be used towards developing the residuals management plan. Finally, an acceptable residuals management plan is needed for us to consider a deviation from the 10-State Standards guidelines.
4. An effluent sampling point needs to be provided for decant water.