

Ashford, Stephen (DEQ)

From: Jim Redding <JRedding@rowepsc.com>
Sent: Tuesday, August 21, 2012 2:35 PM
To: Ashford, Stephen (DEQ)
Cc: Bloemker, Jon (DEQ)
Subject: RE: Lake Huron Intake Project

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

PERMIT NO.

W 122056

AUG 21 '12

SLA

EXAMINED AND APPROVED FOR COMPLIANCE
WITH ACT 399, P.A. 1976

DEQ COPY

Hi Steve,

Regarding your questions,

1. The County plans to provide the ability to back flush the intake; however, these provisions are planned to be incorporated into the pump station piping design. Having two intake cribs will enable us to supply water in the event one is damaged by a boat collision or lost by icing.
2. We don't believe that corrosion of the hardware will be a problem. Underwater, there is typically less available oxygen so corrosion occurs very slowly. Warren Green indicated that a recent video inspection of the Saginaw-Midland intakes showed that the hardware was in good condition. One intake was installed in 1947 and the other in 1994. Warren indicated that hardware on the 1994 intake still has paint on it. The paint specified for our project is a high quality 2 part epoxy. Also, the design for the crib is based on 20% of the strength of the hardware, so substantial loss by corrosion would be needed before there will be an impact to the integrity of the crib.
3. There is a reference in the specification regarding how the timber is to be grade-stamped if the timber will be stained or visible, but we will not be putting a coating or stain on the timber.

If there are other questions, please let me know. Thanks.

Jim Redding

Rowe Professional Services Company

810-869-5166

jredding@rowepsc.com

From: Ashford, Stephen (DEQ) [<mailto:ASHFORDS@michigan.gov>]**Sent:** Tuesday, August 21, 2012 10:28 AM**To:** Jim Redding**Cc:** Bloemker, Jon (DEQ)**Subject:** RE: Lake Huron Intake Project

Jim,

I have completed my review of the Lake Huron Water Supply Initiative Intake design and Junction Chamber. I have the following questions:

1. The top of crib 1 is 10 to 12 feet below the water surface. The top of crib 2 is 16 to 18 feet below the water surface. This raises two concerns. The first concern for crib 1 one is whether larger boats will run into the crib. The second concern for both cribs is whether both will plug with frazil ice at the same time. Question: Does the design include intake back flush capability?
2. Specification section 05550, "Bolts, Anchor Bolts, Expansion Anchors, and Concrete Inserts" indicates that submerged non-stainless steel metal parts will receive epoxy coating at a minimum. I am concerned that these coatings will not last 50 years. What is your opinion?
3. Specification section 06130 "Heavy Timber Construction" indicates that the timber on the intake will be stained or have a natural finish applied. Are these finishes NSF approved?

Please respond in writing. If we need to talk prior to the written response, give me a call.

Stephen L. Ashford, P.E. District Engineer
 Resource Management Division
 Department of Environmental Quality
 Saginaw Bay District Office
 989-894-6261 (office)
 989-891-9213 (fax)

From: Jim Redding [<mailto:JRedding@rowepsc.com>]

Sent: Monday, August 20, 2012 5:16 PM

To: Ashford, Stephen (DEQ)

Subject: RE: Lake Huron Intake Project

Sounds good.

From: Ashford, Stephen (DEQ) [<mailto:ASHFORDS@michigan.gov>]

Sent: Monday, August 20, 2012 5:15 PM

To: Jim Redding

Subject: RE: Lake Huron Intake Project

Got them Jim; I will review both tomorrow Lord willing!

Thanks,

Stephen L. Ashford, P.E. District Engineer
 Resource Management Division
 Department of Environmental Quality
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 989-891-9213 (fax)

From: Jim Redding [<mailto:JRedding@rowepsc.com>]

Sent: Monday, August 20, 2012 4:57 PM

To: Ashford, Stephen (DEQ)

Subject: Lake Huron Intake Project

Steve,

Attached are two specifications which I did not include in the permit application package.

- Section 05550 Bolts, Anchor Bolts, Expansion Anchors, and Concrete Inserts
- Section 06130 Heavy Timber Construction

These describe the materials used to construct the intake cribs.

Let me know if there are questions. Thanks.

Jim Redding