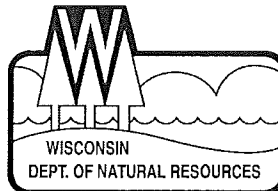


US EPA ARCHIVE DOCUMENT



May 9, 2012

Mr. Larry Wilson
Senior Project Manager
Tyco Marinette Project
800 Water Street
Marinette, WI 54143

File Ref: FID # 438039470

SUBJECT: Class 1 Plan Modification Determination for the
Storage and Treatment of Arsenic Contaminated Sediment
Menominee River Sediment Removal Project
Adjacent to Tyco Fire Products LP Facility
1 Stanton Street, Marinette, Wisconsin
WDNR BRRTS # 02-38-000011
EPA # WID 006 125 215

Dear Mr. Wilson:

The Wisconsin Department of Natural Resources (the Department) has reviewed the hazardous waste class 1 modification request submitted by Tyco's consultant, CH2M Hill dated March 18, 2013 and modified on April 23, 2013. Modifications to the Department's July 3, 2012 remediation variance approval and subsequent August 24, 2012 hazardous waste variance plan modification are being requested to address a number of changes to the treatment and storage of dredge materials from the Menominee River.

This plan modification determination approves a number of proposed changes which are summarized below and, where applicable, a reference to the relevant condition of this plan modification is included.

- Dry ferric will be used as new reagent for soft sediment treatment. Due to the limited supply of this reagent, Tyco will also use liquid ferric sulfate for the treatment of soft sediment when the dry ferric supply is exhausted or unavailable.
- The allowable size of the oversize debris pile will be allowed to increase from 300 cubic yards to 400 cubic yards. (Condition 7)
- Bins curing and storing treated dredge materials will be increased in volume to 2,700 cubic yards and must be operated with one-foot of freeboard. The maximum volume of treated dredge material per individual bin will be 2,100 cubic yards.(Condition 6)
- Testing on the treated dredge materials will be modified. Increased testing is required for the initial treatment of soft sediment using either dry ferric or liquid ferric and SCM using liquid ferric. (Conditions 4 and 5)

- Conditions 4 and 5 of this plan modification make reference to the revised SOP for treated sediment bin sampling which specifies how subsamples will be collected from the treated sediment storage bins.
- Bin 11 (easternmost bin in the sediment storage area) will be modified to accommodate unloading of the fresh dredged material removed from the South Channel.
- Condition 8 requires three follow-up items to be submitted within 30 days of the date of this letter, including the following:
 1. Update a plan sheet to show dry ferric storage and eliminate the sodium hypochlorite and ash storage areas.
 2. Provide an up-to-date SPCC plan for the Menominee River Sediment Removal Project.
 3. Provide an SOP and the updated contractor specifications to minimize fugitive air emissions. This SOP must address all activity, including ways to avoid fugitive emissions during decontamination activities. This SOP should address Conditions 30 and 31 of the July 3, 2012 hazardous waste variance.

This letter serves notice that the Department is issuing a determination to approve the above stated modifications to the storage and treatment process for the dredged sediment and debris.

If you have any questions regarding this letter or the attached remediation variance, please contact Kristin DuFresne in Green Bay at 920-662-5443 or at kristin.dufresne@wisconsin.gov.

Sincerely,



Roxanne N. Chronert, Team Supervisor
Northeast Region Remediation & Redevelopment Program

ec: Jeff Danko, CH2MHill
Mike Mikulka, U.S. EPA – Region 5
Ed Lynch, DNR – WA/5
Mark Gordon, DNR – RR/5
Robert Rosenberger, DNR – Peshtigo
Jim Zellmer, DNR – NERH
David Panofsky, DNR – WA/5
Steve Galarneau, DNR – WT/3
Jim Killian, DNR – WT/3
Cheryl Bougie, DNR – NERH
Kristin DuFresne - NERH

**BEFORE THE STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**CLASS 1 LICENSE MODIFICATION
FINAL DETERMINATION
TYCO SAFETY PRODUCTS
US EPA ID # WID 006 125 215**

FINDINGS OF FACT

The Department finds that:

1. Tyco International, Inc. (Tyco) is the legal owner and operator of Tyco Safety Products – Ansul, Inc. (Ansul) located at 1 Stanton Street in Marinette, Wisconsin.
2. On May 22, 2012, CH2M Hill submitted a remediation variance request for the storage and treatment of arsenic contaminated sediment dredged from the Menominee River. Once dredged, the sediment would be screened and transferred to the hopper of the pug mill via conveyors. The sediment would be mixed with chemicals in the pug mill, resulting in a waste that no longer exhibits the arsenic toxicity characteristic and meets solid waste landfill standards.
3. On July 3, 2012, the Department issued a hazardous waste remediation variance conditional approval for the May 22, 2012 variance request.
4. Tyco began dredging operations in the Turning Basin on July 10, 2012.
5. On July 20, 2012, CH2M Hill, on behalf of Tyco, submitted a Class 1 variance request for the process change discussed on July 19, 2012. The modification request stated that the proposal did not involve any changes to the chemicals used in the treatment of the arsenic contaminated sediment. The modification request also stated that one of two pug mills will be used to treat the sediment.
6. On August 24, 2012, the Department issued a Class 1 Plan Modification addressing the installation of a second pug mill and the management of large debris. The Department received the \$400 plan review fee on October 29, 2012.
7. On October 19, 2012, the Department sent an email to Tyco and its representatives stating that the Department was not approving the proposed pilot to mix dry ferric in an offloading bin with a backhoe.
8. On February 4, 2013, the Department received a copy of the "Dredged Material Treatability Study Results, Tyco Fire Products LP Menominee River Sediment Removal Project, Marinette, Wisconsin," prepared by CH2MHill on behalf of Tyco.
9. EPA, the Department, Tyco and its representatives met in Madison, Wisconsin on February 26, 2013 to discuss the treatability study and items anticipated to be included with a future plan modification request.

10. On March 4, 2013, the Department provided EPA comments on the February 1, 2013 treatability study. On March 6, 2013, EPA provided Tyco with comments on the February 1, 2013 treatability study which included the Department's comments. Tyco responded to EPA comments on March 14, 2013.
11. On March 20, 2013, the Department received a Hazardous Waste Variance Modification Request dated March 18, 2013 from CH2MHill on behalf of Tyco.
12. EPA, the Department, Tyco and its representatives met in Madison, Wisconsin on March 22, 2013 to discuss a number of items with the dredging and sediment treatment on the Menominee River, including the March 18, 2013 plan modification request. The \$400.00 plan review fee associated with the hazardous waste variance plan modification request was received by the Department on March 26, 2013.
13. EPA and the Department provided comments to Tyco and its representatives on the March 18, 2013 plan modification request.
14. On April 26, 2013, the Department received a report dated April 23, 2013 "Response to EPA Comments on the 'Hazardous Waste Variance Modification Request, Tyco Fire Products LP Menominee River Sediment Removal Project, Marinette, WI.' "
15. On May 3, 2013, the Department received via email a revised SOP for "treated sediment bin sampling."

CONCLUSIONS OF LAW

1. The Department has promulgated chs. NR 660 to 679, Wis. Adm. Code, establishing minimum requirements for hazardous waste management under the authority of ch. 291, Wis. Stats.
2. The Department has authority pursuant to s. 289.30(6), Wis. Stats., and s. NR 670.042(1), Wis. Adm. Code, to issue a hazardous waste operating license and approve a class 1 modification to a license or plan of operation.
3. Condition 15 of the Department's July 3, 2012 remediation variance approval states that any changes in hazardous waste storage or treatment activities not identified in the *Hazardous Waste Remediation Variance Request* dated May 12, 2012 shall be submitted as a Class 1 modification subject to Department review and approval in accordance with s. NR 670.042(1), Wis. Adm. Code.

DETERMINATION AND CONDITIONS

Based on the foregoing Findings of Fact and Conclusions of Law, the Department hereby approves the March 18, 2013, class 1 modification and the additional modifications submitted on April 23, 2013, under s. NR 670.042(1), Wis. Adm. Code, and the conditions set forth as follows:

1. This approval is based on the information available to the Department as of the date of this approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this

activity. Likewise, the Department accepts proposals to modify approvals, as provided for in state statutes and administrative codes.

2. Nothing in this conditional approval shall relieve the owner or operator of the legal obligation to comply with applicable federal, state and local requirements.
3. Except as may be expressly provided below, no other conditions in the July 3, 2012 remediation variance approval operation approval or the August 24, 2012 remediation variance plan modification approval are affected by this determination.
4. Condition 14 of the July 3, 2012 Hazardous Waste Variance shall be rescinded and replaced by the following: "At the initiation of the treatment of soft sediment with dry ferric; at the initiation of the treatment of soft sediment with liquid ferric or other approved reagents; and at the initiation of the treatment of SCM with liquid ferric; the following sampling and analysis of treated dredged material shall be conducted on the initial 4,200 cubic yards of treated material until these initial volumes have all samples confirmed with a TCLP value less than 5 mg/L for arsenic:
 - a. For each of the first 4,200 cubic yards of the above treatment scenarios, 1 sample shall be collected for every 300 cubic yards of material treated, for a maximum of 14 samples per 4,200 cubic yard of treated dredge material. Each of the samples will be composited from representative treated sediment per the most recent, approved SOP – Treated Sediment Bin Sampling.
 - b. The following analysis shall be conducted in accordance with the 2006 Quality Assurance Project Plan (QAPP) and amendments on each composite sample:
 - i. TCLP arsenic;
 - ii. Total arsenic;
 - iii. pH; and
 - iv. Paint filter."
5. Condition 19 of the July 3, 2012 Hazardous Waste Variance shall be rescinded in full and replaced with the following: "All treated material shall be tested for TCLP arsenic and the required Subtitle D landfill parameters (paint filter test, etc.) prior to shipment off-site at the rate of 1 composite sample every 500 cubic yards or about 5 samples per full staging bin. The 1 composite sample every 500 cubic yards cannot be implemented until the initial volumes of treated sediment (per Condition 4 of this Hazardous Waste Remediation Variance Plan Modification) have all samples confirmed with a TCLP value less than 5 mg/L for arsenic. Each sample shall be composited in a manner described in Condition 4 of this Hazardous Waste Variance Plan Modification (above) and in accordance with the most recent, approved SOP – Treated Sediment Bin Sampling."
6. Condition 6 of the July 3, 2012 Hazardous Waste Variance shall be rescinded in full and replaced with the following: "Each storage bin shall contain no more than 2,100 cubic yards of treated dredge material at one time. The storage bins shall be operated with a minimum freeboard of one foot from the top of the storage bin side wall. The structural and containment integrity of the bins shall be maintained at all times or until decommissioning is complete."
7. Condition 4 of the August 24, 2012 Class 1 Plan Modification Determination for the Storage and Treatment of Arsenic Contaminated Sediment, Menominee River Sediment Removal Project shall be rescinded in full and replaced with the following: "Treatment of dredged material, including hazardous waste sediment and debris, shall only occur in the two pug mills. After dredging,

untreated sediment shall only be stored in the barge while it is secure to shore. Sediment that has been treated, but is waiting for re-treatment, shall be stored in any of the 11 storage bins located on asphalt pavement in the former salt vault area and the 8th Street Slip. Untreated debris shall be stored either in the northwest corner of the processing area or in one 12' x 30' debris barge secured to shore or in a storage bin that does not contain treated or untreated sediment. The total quantity of untreated debris stored on-site and on the barge shall not exceed 400 cubic yards."

8. Bin 11 (easternmost bin in the sediment storage area) will be modified to accommodate unloading of the fresh dredged material removed from the South Channel.
9. Within 30 days of the date of this plan modification, Tyco shall provide the Department with the following:
 - a. An updated plan sheet showing dry ferric storage and other site updates, including elimination of sodium hypochlorite and ash storage areas.
 - b. An up-to-date spill prevention, control and countermeasure (SPCC) plan for the dredge material handling, treatment and storage (including all reagents and treated sediment) areas.
 - c. A standard operating procedure (SOP) and updated contractor specifications to minimize fugitive air emissions from all aspects of handling, treatment, hauling, loading and unloading, and decontamination. This SOP shall address Conditions 30 and 31 of the July 3, 2012 hazardous waste variance.

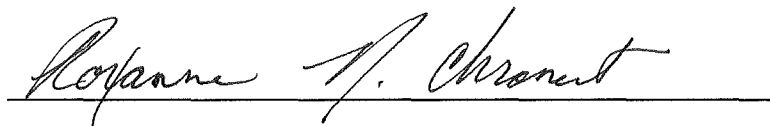
NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the Department to file your petition with the appropriate circuit court and serve the petition on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: 05-09-2013

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
FOR THE SECRETARY



Roxanne N. Chronert, Team Supervisor
Northeast Region Remediation & Redevelopment Program