



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

Re: **Worthington Steel Co**
OHR000017897
Fulton County
DMWM, NWDO
Notice of Violation/Partial Return to
Compliance/Request for
Additional Information

June 21, 2013

Ms. Elaine Veth
Worthington Steel Company
6303 County Road 10
Delta, Ohio 43515

Dear Ms. Veth:

Thank you for accompanying Brad Mitchell, Annette DeHavilland, and me during the Ohio Environmental Protection Agency's (Ohio EPA's) May 30, 2013, focused hazardous waste tank compliance evaluation inspection (CEI) of Worthington Steel Co's (WS's) facility located in Delta, Ohio. We inspected WS to determine its compliance with Ohio's hazardous waste tank regulations as found in Ohio Administrative Code (OAC) rule 3745-52-34 and OAC rule 3745-66-90 through 3745-66-100. A compact disk containing all photos from the May 30, 2013, CEI has been enclosed for your files. Specific photos from that disk have been referenced in this letter and have been printed and enclosed as well.

This letter will explain the new violation we observed, general concerns we have after the May 30, 2013, focused CEI, your compliance with previously cited violations outlined in my most recent Notice of Violation (NOV) dated March 28, 2013, and additional information needed to determine compliance. Ohio EPA received a response to the March 28, 2013, NOV on May 2, 2013. This response included a cover letter and tank assessment and certification documents.

All tank assessment and certification documentation for the three hazardous waste tanks was reviewed by Ohio EPA's Central Office. WS's compliance with Ohio's hazardous waste tank rules and regulations is described below. Please note that WS has not abated all originally listed violations and that WS has been found to be in violation of an additional citation.

The following is a summary of the violations observed after review of WS's tank certification documentation, the focused CEI, and the facility's compliance with respect to each violation. In an attempt to streamline this letter, details concerning previously abated violations or general concerns which have been addressed in previous correspondence have been omitted. In order to correct these violations you must do the following and send me the required information **within 14 days of your receipt of this letter**. Please note that any additional submitted documentation concerning the tank assessment must include the certification statement found in OAC rule 3745-50-42(D) as outlined below.

Violations:

1. OAC rule 3745-66-92(A), Design and installation of new tank system or components:

"Owners or operators of new tank systems or components must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator must obtain a written assessment reviewed and certified by a qualified, professional engineer in accordance with paragraph (D) of rule 3745-50-42 of the Administrative Code attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste."

WS failed to have the following tank assessment documentation as outlined in OAC rule 3745-66-92 (A):

- a. A written assessment reviewed and certified by a qualified professional engineer in accordance with paragraph (D) of rule 3745-50-42 of the Administrative Code attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste (WS needs to have a professional engineer review the drawings and calculations and certify the information is designed properly.) **Abated on May 2, 2013.**
- b. Abated on February 25, 2013.
- c. A certified assessment as described above which includes a determination by a corrosion expert concerning components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water (WS failed to provide information regarding the ancillary structures (i.e. pipes) from the point of generation to the tank and from the tank to the disposal point.) **Abated on May 2, 2013.**
- d. A certified assessment as described above which includes a determination of design or operational measures that will protect the tank system against potential damage for underground tank system components that are likely to be affected by vehicular traffic (WS failed to provide information regarding the ancillary structures (i.e. pipes) from the point of generation to the tank and from the tank to the disposal point.) **Abated on May 2, 2013.**
- e. Abated on February 25, 2013.
- f. Abated on February 25, 2013.
- g. Abated on February 25, 2013.

On May 2, 2013, Ohio EPA received documentation that the written tank assessments (both previously submitted and submitted in the May 2, 2013, response) were reviewed and certified by a qualified professional engineer. Therefore, portion a of this violation is considered abated on May 2, 2013. Please note that any additional documentation concerning the tank assessments submitted in the future must include the certification statement found in OAC rule 3745-50-42(D).

On May 2, 2013, WS provided information that the pipe from the production line to the tank containment area is made of fiberglass epoxy resin. Therefore, portion c of this violation is considered abated on May 2, 2013.

On May 2, 2013, WS submitted documentation that Bailey Oxides LLC (BOL) owns the portion of the piping from the hazardous waste tank containment area to BOL's property and therefore, WS is not responsible for meeting the hazardous waste tank rules and regulations for the portions of the pipes that BOL owns. Please refer to photos 80 and 81 which have been enclosed and show the point of BOL's ownership by the hazardous waste tank containment area. Additionally, at this time BOL has included the pipeline that runs from the hazardous waste tank containment area at WS to the BOL property in BOL's variance application, indicating that BOL maintains these pipes. If this situation changes in the future and BOL no longer maintains the pipelines running from the hazardous waste tank containment area to BOL's property and these lines are used to transport hazardous waste, then WS may be responsible for complying with the applicable hazardous waste rules and regulations regarding these pipes. Portion d of this violation is considered abated on May 2, 2013.

2. OAC rule 3745-66-93(C)(1), Containment and detection of releases: "Secondary containment systems must be...constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure..."

WS failed to provide information on the secondary containment system which shows the system has sufficient strength and thickness to prevent failure.

On May 2, 2013, Ohio EPA received documentation that the concrete liner/sealant used in the secondary containment system for the three hazardous waste tanks is adequate to handle an "intermittent splash or spill" of up to 190 degree Fahrenheit and a complete tank rupture of waste of up to 180 degrees Fahrenheit. WS also submitted documentation to show the actual temperature of the spent pickle liquor waste to be around 159 degrees Fahrenheit. Therefore, the liner of this system is found to be sufficient.

Please note that part of WS's description of the cooling of the hazardous waste prior to storage in the hazardous waste tank farm includes cooling which takes place in the orange spent acid tank. If this orange spent acid tank is removed from the line, then the temperature of the hazardous waste being stored in the tank farm may be altered and may need to be re-evaluated.

This violation is considered abated on May 2, 2013.

3. OAC rule 3745-66-93(C)(2)-Abated on February 25, 2013.
4. OAC rule 3745-66-93(C)(4)-Abated on February 25, 2013.

5. **OAC rule 3745-66-93(E)(1), Containment and detection of releases:** External liner systems must meet the requirements outlined in OAC rule 3745-66-93(E).

WS failed to provide documentation that the hazardous waste tanks secondary containment system meets the requirements outlined in OAC rule 3745-66-93(E) as described below:

- a. Abated on February 25, 2013.
- b. Abated on February 25, 2013.
- c. Abated on February 25, 2013.
- d. WS failed to provide documentation that the external liner is provided with an impermeable coating that is compatible with the stored waste. (WS has not provided enough information about the chemicals stored in the tank to determine if the Ceilcote 2500 is compatible with the stored waste.) **Abated May 2, 2013.**

On May 2, 2013, Ohio EPA received documentation that the concrete liner/sealant used in the secondary containment system for the three hazardous waste tanks is adequate to handle an "intermittent splash or spill" of up to 190 degree Fahrenheit and a complete tank rupture of waste of up to 180 degrees Fahrenheit. WS also submitted documentation to show the actual temperature of the spent pickle liquor waste to be around 165 degrees Fahrenheit. Therefore, the liner of this system is found to be sufficient.

Please note that part of WS's description of the cooling of the hazardous waste prior to storage in the hazardous waste tank farm includes cooling which takes place in the orange spent acid tank. If this orange spent acid tank is removed from the line, then the temperature of the hazardous waste being stored in the tank farm may be altered and may need to be re-evaluated.

This violation is considered abated on May 2, 2013.

6. **OAC rule 3745-66-93(F), Containment and detection of releases:** "Ancillary equipment must be provided with full secondary containment..."

WS failed to have a certified written assessment of the ancillary equipment (piping from the point of generation to the tank and from the tank to the point of disposal).

Ohio EPA received documentation on February 25, 2013, that refers the reader/reviewer to design drawings that include information on the ancillary equipment. However, such design drawings were not submitted to Ohio EPA. During the May 30, 2013, tank inspection, Ohio EPA observed all ancillary equipment for the tank system. At the time of the inspection, all ancillary equipment in question was provided with secondary containment.

Therefore, this violation is considered abated on May 30, 2013.

7. **OAC rule 3745-66-93(C)(3), Containment and detection of releases:** "Secondary containment systems must be... Provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within twenty-four hours..."

WS failed to provide documentation on the secondary containment system which shows it is provided with a leak detection system designed to detect a leak within 24 hours.

Based upon the information submitted on May 2, 2013, and Ohio EPA's tank inspection on May 30, 2013, WS cannot detect a leak from the bottom of the tank within 24 hours.

In order to abate this violation, WS must submit documentation that shows proposed modifications to the tank system that will allow for leak detection within 24 hours as required in OAC rule 3745-66-93(C)(3).

Additional Violation

After inspecting the tank system on May 30, 2013, an additional violation has been noted.

1. **OAC rule 3745-66-93(E)(1), Containment and detection of releases:** External liner systems must meet the requirements outlined in OAC rule 3745-66-93(E).

WS failed to provide documentation that the hazardous waste tanks secondary containment system meets the requirements outlined in OAC rule 3745-66-93(E) as described below:

- a. WS failed to maintain the external liner to be free of cracks or gaps. During the May 30, 2013, focused CEI, Ohio EPA observed that areas of the external liner were compromised. For example, please refer to photos 41 and 42 which have been enclosed that show the compromised external liner.
- b. Due to the liquid in the sump at the time of the inspection, it could not be determined if the sump pit was free of cracks or gaps. Please refer to photo 79 which has been enclosed.

In order to abate portion a of this violation, WS must repair the external liner system and provide documentation to Ohio EPA that shows the external liner system is not compromised and does not contain any cracks or gaps in the liner. In order to abate portion b of this violation, WS must provide documentation that the sump is free of cracks and gaps. All submitted documentation needs to meet all requirements outlined in OAC rule 3745-66-93(E).

Please note that Ohio EPA observed a drain pipe that runs along the bottom of the secondary containment up against the containment wall. The polypropylene mat under the tanks also runs directly up to the secondary containment wall and under the pipe as well.

This does not allow for anyone to check the joint that forms from the secondary containment wall and floor intersection to ensure no cracks are in the secondary containment. Please refer to photo 48 which has been enclosed. Based upon previously submitted documentation, a water stop is in place at this joint and the secondary containment floor is continuous. Ohio EPA recommends that WS ensure this joint is being inspected for cracks and gaps.

Additional Information to determine compliance:

1. **New hazardous waste tank:** During the May 30, 2013, focused CEI, Ohio EPA observed an orange tank labeled "spent acid tank" which is located next to the last hydrochloric acid tank in the process line. WS considers this orange tank a process tank or "swing tank" and not a hazardous waste tank because the potential exists for WS to utilize the spent acid in the orange tank in the production line. However, discussions with the WS operator, Matt Thourot, revealed that WS rarely uses spent acid from the orange tank in the production line, if ever. Discussions with Erwin Laska, plant engineer, revealed that the spent acid in the orange tank is used in the production line only when "major outages" occur, which is only once per year on average. Based upon the information provided to Ohio EPA during the inspection, this orange tank is considered a hazardous waste tank.

In order to determine WS's compliance with the hazardous waste tank rules and regulations for this orange spent acid tank, please submit the tank assessment and certification documentation which documents WS's compliance with OAC rule 3745-52-34 and OAC rule 3745-66-90 through 3745-66-100. If WS decides to remove this tank from the line, then please describe the proposed new waste system set-up.

2. **Tank discoloration:** During the May 30, 2013, focused CEI, Ohio EPA observed the outside of each of the three hazardous waste tanks were discolored. Please refer to photo 13 and 48 which have been attached. This discoloration suggests that each tank has had an overflow of hazardous waste at some point. Please describe when these overflows occurred, how often they occur, why they occur, and procedures taken to clean-up the waste and stop the re-occurrence of this type of event.
3. **Wall discoloration:** During the May 30, 2013, focused CEI, Ohio EPA observed the outside walls surrounding the three hazardous waste tanks were discolored. Please refer to photo 81 which has been attached. This discoloration suggests that hazardous waste has somehow gotten outside of the secondary containment area and onto the surrounding walls. Please describe exactly what happened to produce this discoloration, when the event(s) occurred, how often they occur, why they occur, and procedures taken to clean-up the waste and stop the re-occurrence of this type of event.

WS needs to immediately take the necessary measures to return to compliance with Ohio's environmental laws. Within 14 days of receipt of this letter, WS is requested to provide documentation to this office including the steps taken to abate the violations cited above.

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Documentation of steps taken to return to compliance includes written correspondence, updated policies, and photographs, as appropriate, and may be submitted via the postal service or electronically to kara.reynolds@epa.state.oh.us.

Please be advised that violations cited above will continue until the violations have been properly abated. Failure to comply with Chapter 3734 of the Ohio Revised Code and rules promulgated thereunder may result in a civil penalty of up to \$10,000 per day for each violation. It is imperative that you return to compliance. If circumstances delay the abatement of violations, WS is requested to submit written correspondence of the steps that will be taken by date certain to attain compliance.

Should you have any questions, please feel free to call me at (419) 373-3065. **Please send all correspondence within 14 days of receipt of this letter, to Ohio EPA, Northwest District Office, Attn: Kara Reynolds, 347 North Dunbridge Road, Bowling Green, Ohio 43402.**

Sincerely,

Kara Reynolds

Kara Reynolds
Environmental Specialist
Division of Materials and Waste Management

/cg

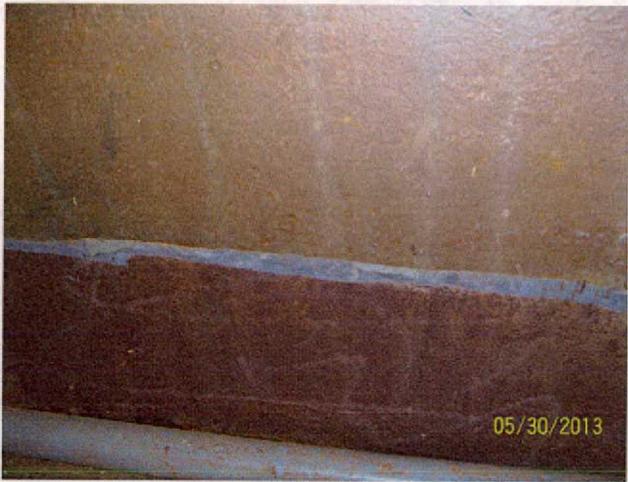
Enclosures

pc: Colleen Weaver, DMWM, NWDO (with printed photos)
Kara Reynolds, DMWM, NWDO (with printed photos)
Lisa Gifford, DMWM, NWDO (without attachments)

ec: Brad Mitchell, DMWM, CO (with printed photos)
Colleen Weaver, DMWM, NWDO (with printed photos)

NOTICE:

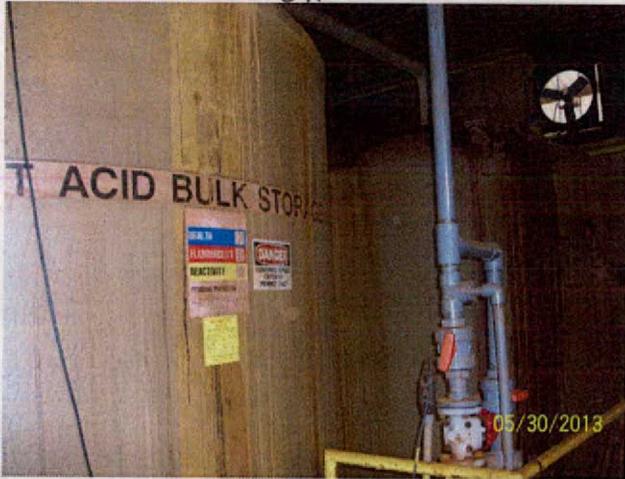
Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with all applicable regulations.



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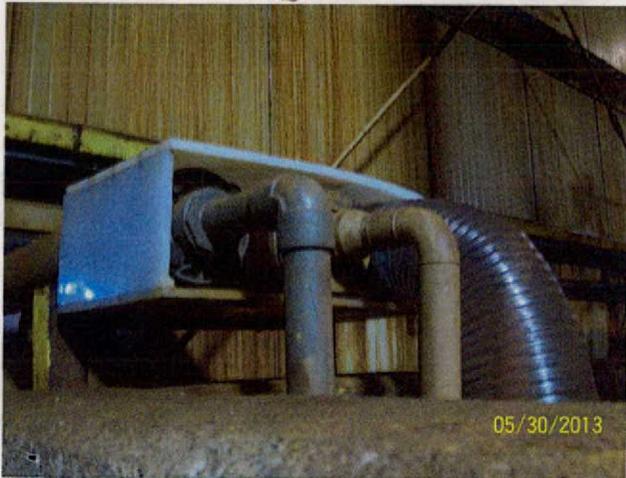
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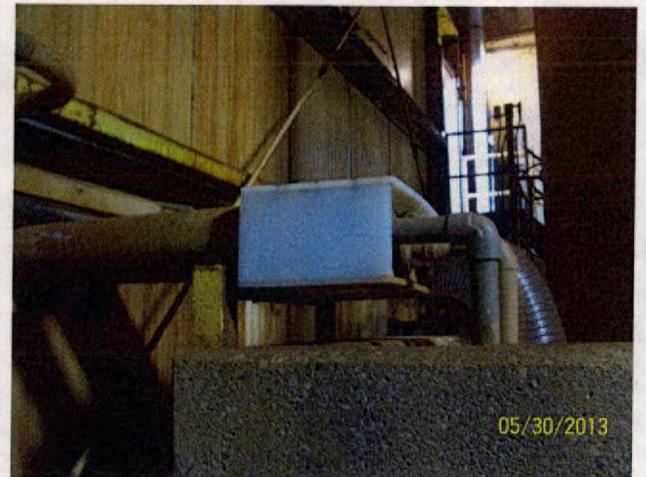
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