

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B541781551

FACILITY: DW-National Standard-Niles, LLC		SRN / ID: B5417
LOCATION: 1631 Lake Street, NILES		DISTRICT: Kalamazoo
CITY: NILES		COUNTY: BERRIEN
CONTACT: Mike Ford, EH&S Coordinator		ACTIVITY DATE: 01/12/2022
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On January 12, 2022 AQD staff (Matt Deskins) went to conduct an unannounced inspection of the DW - National Standard Company (NSC)(SRN: B5417) in Niles, Berrien County. The purpose of the investigation was to determine the facilities compliance with state and federal air regulations as well as the terms and conditions of their AQD air permit No. PTI 22-09B and Consent Order (CO) No. 1-2009. NSC is an opt-out facility for Hazardous Air Pollutants (HAPs). The CO had been entered into for not keeping the proper records for some equipment as well as not doing all the things stated in their Malfunction Abatement Plan (MAP) that had been discovered during previous inspections. Staff departed the district office at approximately 9:40 a.m.

NOTE: The following paragraph is a brief summary of the facilities operations as they had been historically documented in past inspections:

NSC main business involves the use of carbon steel cable. They also used to use stainless steel cable but no longer. They receive the carbon steel cable on reels of various diameters from suppliers. The diameters they purchase depends on what NSC customers request. The first step after they get the carbon steel cable is to wash it in various acid baths and other solutions to clean it. It is then uncoiled automatically into cone machines or draw machines where the steel cable is drawn down to achieve the desired diameter if needed. Throughout this process a drawing compound lubricant is used. After this process is complete it used to head to other stations for any specialty processes such as galvanizing, copper plating, nickel plating, etc. to be applied to it. However, the only specialty process done now is galvanizing of the cable. The cable is then coated with an anti-corrosion material prior to being coiled back onto metal reels, wood reels, or stems for delivery to the customer.

Staff arrived at NSC at approximately 10:50 a.m. At the gated entrance staff had to call in to announce who they were and after doing so, staff was told to proceed to the main office area located in the middle of the building whose door had an awning over it. Staff proceeded to the office area and began signing in. Staff then introduced them self to an employee working behind the glass of the reception area and asked if Brian Stewart (EH&S Manager) or John Calhoun (EH&S Specialist) were available. They were with whom staff had met with during the previous inspection. The employee said she that Brian was no longer with the company and John recently retired. She said staff would probably need to meet with Mike Ford who was the new EH&S Manager and contacted him.

Mike came out to greet staff several minutes later and was accompanied by Kristin Pelizza who was with their Corporate EH&S out of Chicago. Staff introduced

them self and stated the purpose of the visit. Mike mentioned that he just took over the EH&S duties back in May of 2021 and said he wasn't totally familiar with the air requirements yet, but Kristin said that she was. Staff then asked if we could all sit down in a conference room to go over current facility operations along with going over the permit's emission units to see what is still present. During staff's previous inspection back in 2018, numerous emission units had been removed from the facility. They said that would be fine and led staff into the facility and back to a conference room. Once in the conference room, staff exchanged business cards with them both. They then asked what staff would like to go over. Staff asked Kristin and/or Mike to look over the permit's emission units and verify what was still present and what was not. According to Kristin, no new equipment has been added and if anything, things have been getting removed. She then looked over the emission unit table of the permit and the following is what staff was told with regards to them in order of listing.

EU#1 Line – Removed

EU#4 Line – Removed

EU#74 Line – Removed

EUGALVANIZER - Still in Use

EUCLEANHOUSE-N – Still in Use but they no longer use Hydrofluoric Acid

EUBOILER 1, EUBOILER 2, EUBOILER 3 – Two of these are still present but are not used and have been disconnected. They had replaced the use of the 3 boilers with another Cleaver Brooks Boiler that was installed in 2018. It is only fired on natural gas and is rated at 6,123,000 btus/hr. Staff mentioned that the new boiler looked to be installed under the AQD PTI Exemption Rule 336.1282(2)(a). However, staff mentioned that they should be aware of and had told John during the previous inspection that there were Federal Boiler MACT regulations that apply to certain boilers or steam generating units at major (40 CFR Part 63 Subpart DDDDD) and minor (40 CFR Part 63 Subpart JJJJJJ) sources of HAPs. Kristin mentioned that she was aware of them but thanked staff for mentioning it.

EUHCLTANK31 – Still in Use

EUHCLTANK15 – Still in Use

Cone Machines – Still Present but haven't been used in a few months.

EUGALVANIZER2 – Not in use and is being used for parts when needed for the other EUGALVANIZER.

After looking over the emission units, staff then asked Mike and Kristin if they were aware of the Consent Order that had been issued back in 2009 and could have been voided/terminated back in 2014. Staff mentioned that they had told Brian and John about it during the previous inspection(s) but nothing was ever followed up with in terms of requesting it's termination. Kristin said she recalls the CO and will definitely follow up on the matter. Staff then went over the permit and the records required to be kept. Due to the COVID pandemic and instructions to limit our time at facilities, staff asked Kristin if she could e-mail the records to staff. She said she

would do that and did so later that day. Staff then asked some general questions about current operations and the following is a summary of that brief discussion.

According to Mike and/or Kristin, the facility is still operating 24 hours a day seven days a week and that they currently employ 117 employees. They said that business had been slow but was starting to pick up.

Staff then went on a tour of the facility and the following lists the facilities permit special conditions (which are also contained in the Consent Order) and their compliance status with them. The following will also mention MAP requirements where appropriate. NOTE: Staff did not include the permit requirements for any equipment that had been dismantled and totally removed from the facility.

The following conditions apply to: EUGALVANIZER

DESCRIPTION: Galvanizes wire, and includes the following: 700-gallon low-temperature lead bath; 700-gallon high-temperature lead bath; water curtain quench; water rinse; three hydrochloric acid baths, 400 gallons each (approximate concentrations 14%, 18%, and 20%); water rinse; 380-gallon flux bath; 4,000-gallon zinc bath; pad wipes; nitrogen wipes; quench tubes; 300-gallon Galfan flux bath; 1,200-gallon Galfan bath; nitrogen wipes; quench tubes; quench bath; and 300-gallon wax bath. Bath sizes are approximate.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Hydrochloric acid (HCl) concentration in the bath	20% by weight ¹	According to method	Any HCl bath in EUGALVANIZER	SC VI.1	R 336.1224, R 336.1225

AQD Comment: Appears to be in COMPLIANCE. The AQD hasn't taken any samples to date and records that the company keeps indicate all three HCL baths are under this limit when they test it.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The temperature of any HCl bath in EUGALVANIZER shall not exceed a maximum of 70 degrees C.¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. 70 degrees Celsius converts to 158 degrees Fahrenheit which is what their temperature gauges measure in. Records reviewed by staff indicate compliance with the limits. Staff recorded bath readings of 123, 129, and 130 degrees for the 3 HCL baths during the inspection.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall monitor and record, in a satisfactory manner, the HCl concentration of each HCl bath in EUGALVANIZER each time the concentration is adjusted.¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. The facility is doing this.

2. The permittee shall monitor and record, in a satisfactory manner, the temperature of each HCl bath in EUGALVANIZER once each shift that the HCl bath is operated.¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. The facility is doing this.

The following conditions apply to: EUCLEANHOUSE-N

DESCRIPTION: Equipment is used to clean carbon and stainless steel rod, and includes the following: 8,000-gallon hydrofluoric acid bath; 8,000-gallon sulfuric acid 2PIN bath; 12,000-gallon sulfuric acid 3PIN bath; spray rinse; dip rinse; activator bath; two 6,000-gallon zinc phosphate baths; dip rinse; 6,000-gallon borax bath; 6,000-gallon APEX (potassium sulfate) bath; 6,000-gallon lime bath; and dryer. Bath sizes are approximate.

NOTE: During the inspection staff noted that all parameters as listed in the MAP for this unit were within their listed limits. Staff noted the 3PIN bath's temperature was 147 degrees F, the 2PIN bath was 147 degrees F, and the scrubber flow was approximately 1.5 gallons a minute.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: Demister for the acid baths

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Hydrofluoric acid (HF)	Maximum concentration	At any time	HF bath in EUCLEANHOUSE -N	SC VI.2	R 336.1224, R 336.1225

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
	10% by weight ¹				

AQD Comment: Appears to be in COMPLIANCE. Kristin and Mike said that they still don't use any hydrofluoric acid.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall monitor and record, in a satisfactory manner, the temperature of the sulfuric acid 2PIN bath and the temperature of the sulfuric acid 3PIN bath in EUCLEANHOUSE-N once each shift that each bath is operated.¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. The facility is doing this.

2. The permittee shall monitor and record, in a satisfactory manner, the HF concentration in the HF bath, the sulfuric acid concentration in the sulfuric acid 2PIN bath, and the sulfuric acid concentration in the sulfuric acid 3PIN bath in EUCLEANHOUSE-N each time the concentration is adjusted.¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. Kristin and Mike said that they don't use hydrofluoric acid anymore and that this bath was part of the stainless steel cable process back in the day.

The following conditions apply to: EUGALVANIZER2

NOTE: Staff did not ask for any records regarding this emission unit. As mentioned previously, staff was told that it is no longer used and is only used for parts for the other Galvanizer line and this was confirmed during the plant tour.

DESCRIPTION: Galvanizes wire, and includes the following: 700-gallon low-temperature lead bath; 700-gallon high-temperature lead bath; water quench; 1200-gallon hydrochloric acid bath (approximate concentration 14% to 18%); water rinse; 380-gallon flux bath; 4,000-gallon zinc bath; gas gravel wipe utilizing hydrogen sulfide and propane; a second 380-gallon flux bath; nitrogen wipes; a second water quench; and 300-gallon wax bath. Bath sizes are approximate.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Hydrochloric acid (HCl) concentration in the bath	18% by weight ¹	According to method	Any HCl bath in EUGALVANIZER2	SC VI.1	R 336.1224, R 336.1225

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The temperature of any HCl bath in EUGALVANIZER2 shall not exceed a maximum of 140 degrees F.¹ (R 336.1224, R 336.1225)

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall monitor and record, in a satisfactory manner, the HCl concentration of each HCl bath in EUGALVANIZER2 each time the concentration is adjusted.¹ (R 336.1224, R 336.1225)

2. The permittee shall monitor and record, in a satisfactory manner, the temperature of each HCl bath in EUGALVANIZER2 once each shift that the HCl bath is operated.¹ (R 336.1224, R 336.1225)

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBOILERS	Three Cleaver Brooks Model CB428-400 natural gas-fired boilers used to generate steam, each rated at 16.738 MMBTU/hr. The boilers originally were able to burn No. 6 fuel oil, but can no longer do so.	EUBOILER1, EUBOILER2, EUBOILER3

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCONEMACHINES	The "cone machines" draw stainless steel wire down to very small diameters.	Not named individually
FGHCLTANKS	Hydrogen chloride storage tanks	EUHCLTANK31, EUHCLTANK15
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	All equipment at the facility

NOTE: As mentioned previously, two of the three Cleaver Brooks listed below are still present at the facility but have been disconnected. A new smaller unit rated at 6,123,000 btu's/hr replaced them and is only fired on natural gas. It could be installed under the AQD PTI Exemption mentioned previously.

The following conditions apply to: FGBOILERS

DESCRIPTION: Three Cleaver Brooks Model CB428-400 natural gas-fired boilers used to generate steam, each rated at 16.74 MMBTU/hr. The boilers originally were able to burn No. 6 fuel oil, but can no longer do so.

Emission Units: EUBOILER1, EUBOILER2, EUBOILER3

POLLUTION CONTROL EQUIPMENT: NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. Applicant shall not operate more than two boilers at one time. (R 336.1205)

AQD Comment: Appears to be in COMPLIANCE. As mentioned previously, two of the three Cleaver Brooks listed in the permit are still present at the facility but have been disconnected.

The following conditions apply to: FGCONEMACHINES

DESCRIPTION: All "cone machines" at the facility. Each "cone machine" draws stainless steel wire down to very small diameters. The use of drawing compound results in VOC emissions.

Emission Units: The cone machines are not named individually, since individual machines are exempt under R 336.1285(l)(i).

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	9.0 tpy	12-month rolling time period*	FGCONEMACHINES	SC VI.2	R 336.1205
* 12-month rolling time period as determined at the end of each calendar month					

AQD Comment: Appears to be in COMPLIANCE. Records reviewed by staff indicate the most recent 12-month rolling emissions amount at 4.61 tons of VOC.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall monitor and record, in a satisfactory manner, the amount of drawing compound used in FGCONEMACHINES, in gallons, and the VOC content of the drawing compound, in pounds per gallon, on a monthly basis. (R 336.1205)

AQD Comment: Appears to be in COMPLIANCE. The facility is tracking how much they use. They use products they refer to as AD-7 and AD-7MV and they are mixed together at a 50:50 ratio. AD-7 has a density of 6.95 pounds per gallon and a VOC content of 85%. AD-7MV has a density of 7.45 pounds per gallon and VOC content of 50%.

2. The permittee shall calculate the VOC emission rate from FGCONEMACHINES monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205)

AQD Comment: Appears to be in COMPLIANCE. They have an excel spreadsheet that they use and it appears easy to understand.

The following conditions apply to: FGHCLTANKS

DESCRIPTION: Hydrogen chloride storage tanks, each about 5,000 gallons capacity.

Emission Units: EUHCLTANK31, EUHCLTANK1

NOTE: EUHCLTANK 31 is a storage tank that contains 31% HCL and EUHCLTANK15 is a recovery tank and they both exhaust through the wet scrubber. Staff noted

during the inspection that the flow through the Eductor and Tower of the scrubber were within the parameters of the MAP as well as were the make-up flow and pressure drop.

POLLUTION CONTROL EQUIPMENT: EUHCLTANK31 exhausts through a wet scrubber

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall monitor and record, in a satisfactory manner, the number of transfers of material to FGHCLTANKS on a monthly basis. ¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. The facility is monitoring and recording this.

2. The permittee shall keep, in a satisfactory manner, all monthly records of the number of transfers to FGHCLTANKS, as required by SC VI.1, on file at the facility and make them available to the Department upon request. ¹ (R 336.1224, R 336.1225)

AQD Comment: Appears to be in COMPLIANCE. The facility is doing this and they record them on a computer spreadsheet.

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT:

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Each individual HAP	Less than 9 tpy	12-month rolling time period*	FGFACILITY	SC VI.1	R 336.1205
2. All HAPs combined	Less than 22.5 tpy	12-month rolling time period*	FGFACILITY	SC VI.1	R 336.1205
* 12-month rolling time period as determined at the end of each calendar month					

AQD Comment: Appears to be in COMPLIANCE. Records reviewed by staff indicate the highest individual HAP as HCL with emissions of up to 0.7 tons per year and aggregate HAPS of up to 0.9 tons per year. It appears that the only HAPs now are HCL and Lead.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall store all cleaning solvents in closed containers when not in use, and shall capture all waste cleaning and purge solvents and shall store them in closed containers. The permittee shall dispose of all waste cleaning and purge solvents in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1205, R 336.1702(a))

AQD Comment: Appears to be in COMPLIANCE. The facility appears to be doing this and staff didn't note any issues during the inspection.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall calculate the individual HAP and combined HAPs emission rates from FGFACILITY monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205)

AQD Comment: Appears to be in COMPLIANCE. They have an excel spreadsheet that they use and it appears easy to understand.

FACILITY COMPLIANCE STATUS: The facility appears to be in COMPLIANCE with the requirements of PTI No. 22-09B, the MAP, and Consent Order No. 1-2009 at the present time. Staff had forgotten to mention it earlier in this report, but Kristin mentioned that they would be looking to update their PTI to reflect the current equipment and operations at the facility. Staff had then mentioned that while doing that they might want to look into re-calculating their PTE. They might be able to prove that they are true minor source now instead of having the opt-out permit and staff had mentioned the pros and cons of possibly doing that. Staff also reiterated they should look into terminating the CO as well. Staff mentioned that that the CO explains how to request its termination, but if they couldn't find the CO, then they should contact staff and staff would either get them a copy of it or list what is required. They said that they would do that. Staff thanked them both for their time and departed the facility at approximately 12:35 p.m.

NAME Matt Dah

DATE 1-19-22

SUPERVISOR RIL 1/24/22