

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B541745236

FACILITY: DW-National Standard-Niles, LLC		SRN / ID: B5417
LOCATION: 1631 Lake Street, NILES		DISTRICT: Kalamazoo
CITY: NILES		COUNTY: BERRIEN
CONTACT: John Calhoun , EH&S Specialist		ACTIVITY DATE: 07/18/2018
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On July 18, 2018 AQD staff (Matt Deskins) went to conduct an unannounced inspection of the DW - National Standard Company (NSC) 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 9:30 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 and stainless steel cable. They receive the 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 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. Throughout this process a drawing compound lubricant is used. After this process is complete it heads to other stations for any specialty processes such as galvanizing, copper plating, nickel plating, etc. to be applied to it. 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 10:45 a.m. At the gated entrance staff had to call in to announce who they were and after doing so, staff was allowed in. 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 Eric Rodebaugh (EH&S Manager) was available. Eric and John Calhoun (EH&S Specialist) was whom staff had met with during the previous inspection. The employee said she didn't know an Eric and nobody by that name worked there currently. She then referred staff to Brian Stewart (New EH&S Manager) whom she then contacted.

Brian came out to greet staff several minutes later. Staff introduced them self and stated the purpose of the visit. Brian then led staff back to his office and he then went on got John Calhoun. Staff gave them both business cards and mentioned what the inspection would entail. John and Eric then asked staff where they would like to start. Staff mentioned they would first like to ask some general questions about current plant operations and then go over the requirements of their PTI and the Malfunction Abatement Plan (MAP) which are both contained in the Consent Order. The CO was in effect for a period of 5 years which ended in February of 2014. During the previous inspection staff had made them aware that it

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could be terminated upon the company's written request to the department. Staff mentioned this again to Brian and John. John said that he had told upper management about it after staff's last inspection, but apparently they must not have looked into it. Staff mentioned that it's still in effect until it has been terminated. John and Brian said that they understood and will talk to management again about it. Staff then started asking questions about their current operations and the following is a summary of staff's discussions with John and Brian.

Staff asked if they had added or removed any equipment contained in the permit since staff was last there in 2014. Staff then pulled out the permit and started going through the various emission units with them. According to John and Brian, the EU#1Line, Eu#4Line, and EU#74Line have all been removed. They said that they no longer do any stainless steel cable and that they quit production of it back in August 2017. They said all they do now is Galvanized and Bright (non-coated carbon steel) cable now. They said that they still have the two Galvanizers but only the #1 unit is used. They said that the #2 unit was only used for about a year and a half after it was installed and then they mothballed it. They said that unless things dramatically change, it will not be used again. They said that all the bath tanks are empty on it and they have basically been using it for spare parts for the #1 unit. Staff then asked about the boilers and they said that they still have the three boilers but those will be removed within a month and replaced by a smaller unit. Brian said that they only need steam for the Cleaning House process now. Staff had mentioned to John during the previous inspection that there were new Federal Boiler MACT regulations that could apply to certain boilers or steam generating units at major (40 CFR Part 63 Subpart DDDDD) and minor source (40 CFR Part 63 Subpart JJJJJJ) of HAPs. Staff then asked about the Cone Machines that draw the wire down. Brian and John said that they still have them but they will be getting rid of those within the year. They said that they are hardly used now except for fulfilling the remainder of a government contract. They said once that once the contract is finished they will no longer use them and they will be removed.

Staff then asked about employee numbers and hours of operation. John said that they are still working 24 hours a day seven days a week but shift times vary. He said that they currently employ 94 hourly, 38 salaried, and 2 to 4 temporary employees. He said that business had been slow but was starting to pick up a little bit again. Staff then asked to review records and later took a tour of plant operations. Most of the records were kept in John's office and some were kept by the waste water treatment plant operator.

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 included the permit requirements for any equipment that has been dismantled and removed.

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: COMPLIANCE. The AQD hasn't taken any samples to date and records that the company keeps indicate it to be under this amount 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: 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 (See Attached Spreadsheet for example of how they record it). Staff recorded bath readings of 115, 110, and 112 degrees 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: COMPLIANCE. The facility is doing this (See Attached Spreadsheet for example of how they record it).

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: COMPLIANCE. The facility is doing this (See Attached Spreadsheet for example of how they record it).

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 145 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 10% by weight ¹	At any time	HF bath in EUCLEANHOUSE-N	SC VI.2	R 336.1224, R 336.1225

AQD Comment: COMPLIANCE. John said the facility no longer uses 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: COMPLIANCE. The facility is doing this (See Attached Spreadsheet for example of how they record it).

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: COMPLIANCE. John said that they don't use hydrofluoric acid anymore and that this bath was part of the stainless steel cable process.

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 hasn't been used in about 3 years and will probably not be

used again. Staff verified during the plant walk through that all the process tanks associated with it were empty and it wasn't in operation.

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
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

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: COMPLIANCE. The facility was currently operating only one unit and as mentioned earlier, these units are supposed to be replaced by one smaller unit within a month.

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(I)(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 highest 12-month rolling emissions amount at 0.1 tons of VOC. As mentioned earlier, these machines are hardly used anymore and will be removed within a year.

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: COMPLIANCE. The facility is tracking how much they use which is hardly anything since these machines aren't used much now. 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 their consultant (Fishbeck) set up for them 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 EUHCLTANK1 is a recovery tank. They actually 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: 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: 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 1.0 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: 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 their consultant (Fishbeck) had set up for them years ago 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 mentioned to John and Brian that they might want to mention to management to look into re-calculating their PTE since they've removed a lot of equipment and will be removing even more in the future. They might be able to prove that they are true minor source now instead of having the opt-out permit. Staff also reiterated they should mention to them about the CO as well. 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 DeR

DATE 7-20-18

SUPERVISOR MA 7/20/2018

