

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

B541728042

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 Manager		ACTIVITY DATE: 12/11/2014
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On December 11, 2014 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 air use permit number PTI 22-09 and Consent Order No. 1-2009. NSC is an opt-out facility. Staff departed the district office at approximately 9:55 a.m.

Staff arrived at NSC at approximately 11:05 a.m. NSC has a guard house out front and staff stated who they were and the purpose of the visit. Staff mentioned that they met with John Calhoun (EH&S Manager) during the last inspection and the guard mentioned that he thought John was in today. The guard then had staff sign in and staff was allowed to proceed to the office area. Staff entered the office area and proceeded to sign in again. Staff then introduced them self to an employee working behind the glass of the reception area and asked if John Calhoun was available. She contacted John and said he would be out shortly to meet with staff. Several minutes later John and Eric Rodebaugh (New EH&S Manager) came to greet staff. Staff introduced them self and stated the purpose of the visit. Staff then gave Eric a copy of the DEQ's "Environmental Inspection Brochure" and a business card. 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. Staff said after that they would like to walk through and check out plant operations. John and Eric then led staff to an office where they could converse. The following is a summary of staff's discussions with John and Eric.

According to Eric, he just started at the facility about two months ago and will be handling the management side of EH&S responsibilities with John still handling the day to day things of their operations. Staff then asked if anything has changed with their operations since staff's last inspection to which the reply was no, and that their business still revolves around carbon and stainless steel wire/cable. They said that business has still been good and that they are looking to add another galvanizing line from a facility in Colorado that is closing down. Staff noted that they recently submitted a PTI application for it. John said that they are still working 24 hours a day seven days a week and employ approximately 150 employees (both hourly and salaried). Staff then asked if they had added or removed any equipment contained in the permit. They said that they hadn't although the #74 line is still shutdown and is being slowly dismantled. They went on to say that they still have the three boilers but only having been using one. They said that one of the boilers has been down for maintenance. Staff made them aware of the new Federal Boiler MACT regulations that apply to major and minor source of HAPs and John and Eric mentioned that they didn't think the regulation applied to them. Staff said that it might not and just wanted to

make them aware of it because although the AQD isn't delegated to enforce it currently, the EPA could. Staff then asked to review records and then took a tour of plant operations. Most of the records were kept in John's office, some are kept out in the plant, and some were kept by the waste water treatment plant operator (Bob Hames).

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.

**PLEASE NOTE:** Since the facility hasn't changed any of their processes and the emission unit descriptions below appear to be accurate on what each process the wire goes through, staff will not go into a lot of detail since they've been described in previous inspection reports as well. Also, the facility had dismantled some emission units that were there in the past and are no longer in use.

**SPECIAL CONDITIONS OF PTI NO. 22-09**

**The following conditions apply to: EU#1LINE**

**DESCRIPTION:** Equipment is used to clean and coat wire and to bake on the coating, and includes the following: 450-gallon caustic bath; Rinse 1; 338-gallon nitric acid bath; Rinse 2; 380-gallon satin glide bath; air wipe; and dryer. Bath sizes are approximate.

Flexible Group ID: FGFACILITY

**POLLUTION CONTROL EQUIPMENT:** NA

**AQD Comment:** This emission unit actually has a wet scrubber as pollution control equipment. In the MAP they are required to monitor the recirculation pump meter, make up flow meter, and the right and left magnahelic gauges on a weekly basis. The facility has records showing they are doing this and the readings appear to be within the proper ranges specified in the MAP (See Attached).

**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*	EU#1LINE	SC VI.1	R 336.1702(a)
* 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 5.6 tons of VOC. According to John, they still are using any solvents (mineral spirits) in this process.

**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 VOC emission rate from EU#1LINE 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 336.1702(a))

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: EU#4LINE

**DESCRIPTION:** This emission unit makes stainless steel wire. It includes a nitric acid bath and an electric annealer, followed by branching lines. One branch includes two coating tanks (SS2 & SS3) and a gas dryer, and the other branch includes sulfuric acid, nickel, copper sulfate, and coating (SS2) baths and a dryer. Each dryer has a heat input capacity of 90,000 BTU/hr.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Nitric acid	58.5 ppmv <sup>1</sup>	Test protocol	The nitric acid bath in EU#4LINE	GC 13	R 336.1901

AQD Comment: COMPLIANCE. We have not requested any testing to date.

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV#4VENT	16 <sup>1</sup>	47.3 <sup>1</sup>	R 336.1901

AQD Comment: Compliance. The stack appears to meet the requirements above.

**The following conditions apply to: EU#74LINE**

**AQD COMMENT: THIS EMISSION UNIT IS NO LONGER IN USE. SOME OF THE EQUIPMENT IS STILL THERE BUT THEY WOULD HAVE TO REDO THE WHOLE LINE TO MAKE IT FUNCTIONAL AGAIN, SO ALL THE REQUIREMENTS BELOW ARE NON-APPLICABLE AT THE PRESENT TIME.**

**DESCRIPTION:** This emission unit makes carbon and steel wire. The copper (west) section has caustic, hydrochloric acid, copper sulfate, and coating (741) tanks and a gas dryer. The copper free (east) section has two coating tanks (741 & 742), a cold cleaner (mineral spirits), and a gas dryer. Each dryer has a heat input capacity of 1.5 MMBTU/hr.

**Flexible Group ID: FGFACILITY**

**POLLUTION CONTROL EQUIPMENT:** Two wet scrubbers

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Hydrogen chloride (HCl)	0.05 lb/hr <sup>1</sup>	According to method	EU#74LINE	GC 13, SC IV.1	R 336.1225

2. The visible emission from EU#74LINE shall not exceed 0% opacity. (R 336.1301)

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EU#74LINE unless both scrubbers in EU#74LINE are installed, maintained, and operated in a satisfactory manner. (R 336.1224, R 336.1225, R 336.1910)
2. The permittee shall equip and maintain each scrubber in EU#74LINE with a liquid flow indicator. (R 336.1910)

**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 liquid flow rate for each scrubber in EU#74LINE each shift that EU#74LINE operates. (R 336.1910)

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged

unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV#74LINESCRUB1	20 <sup>1</sup>	35 <sup>1</sup>	R 336.1225
2. SV#74LINESCRUB2	20 <sup>1</sup>	35 <sup>1</sup>	R 336.1225

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 <sup>1</sup>	According to method	Any HCl bath in EUGALVANIZER	SC VI.1	R 336.1224, R 336.1225

AQD Comment: COMPLIANCE. We have not requested any testing to date.

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The temperature of any HCl bath in EUGALVANIZER shall not exceed a maximum of 70 degrees C.<sup>1</sup> (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). Staff recorded bath readings of 114, 101, and 106 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.<sup>1</sup> (R 336.1224, R 336.1225)

AQD Comment: 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.<sup>1</sup> (R 336.1224, R 336.1225)

AQD Comment: COMPLIANCE. The facility is doing this (See Attached).

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.

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 <sup>1</sup>	At any time	HF bath in EUCLEANHOUSE-N	SC VI.2	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 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.<sup>1</sup> (R 336.1224, R 336.1225)

AQD Comment: COMPLIANCE. The facility is doing this (See Attached).

- 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.<sup>1</sup> (R 336.1224, R 336.1225)

AQD Comment: COMPLIANCE. The facility is doing this although John said they still don't need to do it much for the HF bath because they still hardly use it. John said that the bath is mainly for stainless steel.

### 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 one and was one down for maintenance. They never operate more than two and that would typically just be in the winter time.

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 highest 12-month rolling emissions amount at 0.6 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: COMPLIANCE.** Records for the calendar year indicate that they've used 114 gallons each of a product to date they refer to as AD-7 and AD-7MW 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-7MW 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, EUHCLTANK15

**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. <sup>1</sup> (R 336.1224, R 336.1225)

**AQD Comment:** COMPLIANCE. The facility is monitoring and recording this. John said that they get 2 to 3 deliveries per month.

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. <sup>1</sup> (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 indicate the

highest individual HAP as HCL with emissions up to 1 ton per year and aggregate HAPS up to 8.7 tons per year.

### 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) set up for them and it appears easy to understand.

**FACILITY COMPLIANCE STATUS:** The facility appears to be in COMPLIANCE with the requirements of PTI No. 22-09, the MAP, and Consent Order No. 1-2009 at the present time. The CO was in effect for a period of 5 years which ended in February of 2014. Staff made Eric and John aware that it could be terminated upon the company's written request to the department. Staff departed the facility at approximately 1:15 p.m.

NAME Matt Dahn

DATE 12-16-14

SUPERVISOR MA 12/16/2014