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OFFICE OF AIR QUALITY
FIELD INSPECTION REPORT

SOURCE: Matthew-Warren, Inc.
LOCATION: P.O. Box 7008
CITY: Logansport, Indiana 46947
COUNTY: Cass
Telephone: 574-722-8232

PLANT ID NUMBER: 017-00022
INSPECTION BY: David Rice
INSPECTION DATE: 10/20/15
TIME IN: 7:00am TIME OUT: 12:00pm
INSPECTION DATE: 10/21/15
TIME IN: 6300am TIME OUT: 9:00am
REPORT DATE: 10/21/15
REPORTED BY: David Rice

COMPLAINT INVESTIGATION: NO COMPLAINT NUMBER: NA

ATTAINMENT _X_ NONATTAINMENT __: SO2__CO__ 03__ NO2__ PM__ PM10__ PM2.5__

PERMIT TYPE: FESOP

CHECK IF APPLICABLE: NSPS __ NESHAP __ PSD __ OTHER (EXPLAIN) __

PERSONS/TITLE INTERVIEWED: Ken Schnettler, Mfg. Eng. Mgr. (kschnettler@mw-ind.com)

OBJECTIVE(S): Compliance Monitoring Strategy __ Commitment _X_
Multimedia Screening __ Surveillance __
Complaint __ Other __

Announced Inspection __ Unannounced Inspection _X_

Were all relevant documents reviewed prior to the inspection: YES If no, explain:

DESCRIPTION OF SOURCE: Stationary steel spring manufacturing facility.

BACKGROUND: This source was last inspected March 7, 2012. No violations were noted during the inspection.

Second Renewal of FESOP (26357) was issued August 5, 2008; and Administrative Amendment (28382) was issued September 11, 2009.

PROCESS DESCRIPTION/FINDINGS/OBSERVATIONS:

D.1 1. Process Description: Painting.

2. Equipment: 4 Segments for coating.

3. Pollutants emitted: NOx __PM __PM10 __CO __SO2 __HAPS _X_ VOCs __

4. Control Equipment: For each piece of control equipment:

Control Equipment	Exhaust to:
None	NA

5. Applicable Rules: 326 IAC 2-8-4(1), (3), and (9); 8-1-2; and 8-1-4.

6. Observations:

Emission Limits/Standards	**REQUIREMENTS:** **D.1.1**: (a) High 12 month rolling total of total input usage of any single HAP delivered to identified surface coating operations, including HAP usage for clean-up, to be less than 9.7 tons. (b) High 12 month rolling total of input usage of combined HAPs delivered to applicators identified, including combined HAP usage for clean up, to be less than 24.7 tons. **FINDINGS:** **D.1.1**: (a)) The high 12 month rolling total of total input usage of any single HAP delivered to identified surface coating operations, including HAP usage for clean-up, was 1 ton. (b) The high 12 month rolling total of input usage of combined HAPs delivered to applicators identified, including combined HAP usage for clean up, was 1 ton. **REQUIREMENTS:** **D.1.2**: A Preventive Maintenance Plan is required. **FINDINGS:** **D.1.2**. The Preventive Maintenance Plan was reviewed. It was found to be satisfactory.
Preventive Maintenance Plan	Prepared: YES Available on Site: YES Adequate: YES
Stack Testing	None
Compliance Determination	**REQUIREMENTS:** **D.1.3**: Compliance with HAP usage limitations in condition D.1.1 to be determine pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a). **FINDINGS:** **D.1.3**: Compliance with HAP usage limitations in condition D.1.1 is being determine pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a). **REQUIREMENTS:** **D.1.4**: High 12 month rolling total of single HAP usage and total combination of HAP usage, to demonstrate compliance with condition D.1.1, to be demonstrated within 30 days of the end of each month. **FINDINGS:** **D.1.4**: The high 12 month rolling total of single HAP usage and total combination of HAP usage, to demonstrate compliance with condition D.1.1, was being demonstrated within 30 days of the end of each month.
Compliance Monitoring	None

D.2 1. Process Description: Parts preparation.

2. Equipment: 27 grinders, 9 shot peen units, 2 abrasive saws, and 1 powder coating application system.

3. Pollutants emitted: NOx __PM _X_PM10 _X_CO __SO2 __HAPS __ VOCs __

4. Control Equipment: For each piece of control equipment:

Control Equipment	Exhaust to:
Dust Collectors and Baghouses	Atmosphere

5. Applicable Rules: 326 IAC 2-8-4-1, (3), and (9); 2-8-5(a)(1); and 6-2-3.

6. Observations:

Emission Limits/Standards	**REQUIREMENTS:** **D.2.1**: (1) PM10 emissions from each segment GP101, GP102, and GP103 not to exceed 1.72 lbs./hr. after controls. (2) PM10 emissions from segment GP104 not to exceed 4.77 lbs./hr. after controls. (3) PM10 emissions from each segment GP105 and GP202 not to exceed 0.58 lbs./hr. after controls. (4) PM10 emissions from segment GP201 not to exceed 2.35 lbs./hr. after controls. **FINDINGS:** **D.2.1**: (1) There was no evidence observed indicating that PM10 emissions from each segment GP101, GP102, and GP103 exceeded 1.72 lbs./hr. after controls. (2) There was no evidence observed indicating that PM10 emissions from segment GP104 exceeded 4.77 lbs./hr. after controls. (3) There was no evidence observed indicating that PM10 emissions from each segment GP105 and GP202 exceeded 0.58 lbs./hr. after controls. (4) There was no evidence observed indicating that PM10 emissions from segment GP201 exceeded 2.35 lbs./hr. after controls.

Emission Limits/Standards (Continued)	(6) There was no evidence observed indicating that PM emissions from shot grinding and shot peening exceeded 2.35 lbs./hr, when operating at process weight rate of 0.437 ton/hr. for segment GP201. (7) There was no evidence observed indicating that PM emissions from shot grinding and shot peening exceeded 0.58 lbs./hr, when operating at process weight rate of 0.055 ton/hr. for segment GP202. **REQUIREMENTS:** **D.2.3**: The dry cartridge filter controlling PM emissions from powder coating application system (280PC01) to be operated per Manufacturer's specifications. **FINDINGS:** **D.2.3**: There was no evidence observed indicating that the dry cartridge filter controlling PM emissions from powder coating application system (280PC01) was not operated per Manufacturer's specifications. **REQUIREMENTS:** **D.2.4**: A Preventive Maintenance Plan is required. **FINDINGS:** **D.2.4**: The Preventive Maintenance Plan was reviewed. It was found to be satisfactory.
Preventive Maintenance Plan	Prepared: YES Available on Site: YES Adequate: YES
Stack Testing	None
Compliance Determination	**REQUIREMENTS:** **D.2.5**: (a) Baghouse controlling PM emissions from grinding and shot peen operations (GP101, GP102, GP103, GP104, GP105, GP201, and GP202) to be operating when grinding and shot peening. (b) In the event bag failure observed in multi-compartment baghouse, if operations to continue for 10 days or more after failure observed and before failed units replace or repaired, to promptly notify IDEM, OAQ of expected date failed units will be replaced or repaired. (c) Integral cartridge filter to be operating whenever powder coating application system (280PC01) operating

Compliance Determination (Continued)	**FINDINGS:** **D.2.5**: (a) There was no evidence observed indicating that the baghouse controlling PM emissions from grinding and shot peen operations (GP101, GP102, GP103, GP104, GP105, GP201, and GP202) was not operating when grinding and shot peening. (b) There was no evidence observed indicating that the baghouse has failed. (c) There was no evidence observed indicating that the Integral cartridge filter was not operating whenever powder coating application system (280PC01) operated
Compliance Monitoring	**REQUIREMENTS:** **D.2.6**: VE of stack exhaust to be observed once per day during normal daylight operations when GP101, GP102, GP103, GP104, GP105, GP201, and GP202 operating and exhausting to atmosphere by a trained employee **FINDINGS:** **D.2.6**: VE of stack exhaust were observed once per day during normal daylight operations when GP101, GP102, GP103, GP104, GP105, GP201, and GP202 operating and exhausting to atmosphere by a trained employee **REQUIREMENTS:** **D.2.7**: To record pressure drop across baghouses 125X30, 125X31, 533X05, 125X32, 123H04, 230X23, and 230X240 at least once per day. The acceptable pressure drop range is:

Baghouse	Acceptable Pressure Drop
125X30	1.0 – 1.5 inches
125X31	1.2 – 1.7 inches
533X05	0.8 – 1.3 inches
125X32	1.8 - 2.6 inches
123H04	2.5 – 4.0 inches
230X23	0.6 – 1.1 inches
230X240	0.8 – 1.3 inches

Pressure drop gauges to be calibrated or replaced at least once every 6 months.

FINDINGS:

D.2.7: Pressure drops for the baghouses noted are being recorded each day when the unit is operating. These records were found to be complete and up-to-date. All recorded pressure drops were within the limits noted except 125 X 31. There were several recorded pressure drops below the 1.2 inches limit; i.e., 1.0 inches. Exceeding the range is not a violation. Not taking corrective action is the violation, and no corrective actions were taken. This is a **violation of permit condition D.2.7.**

The pressure gauges are calibrated at least once every 6 months.

Compliance Monitoring (Continued)	**REQUIREMENTS:** **D.2.8**: (a) For single compartment baghouses controlling emissions from a continuous process, if bag failure observed, failed unit and associated process to be shut down immediately until failed unit repaired or replaced. (b) For single compartment baghouses controlling emissions from a batch process, if bag failure observed, feed to process to be shut down immediately until failed unit repaired or replaced. **FINDINGS:** **D.2.8**: (a) This subpart does not apply. The process is not continuous. (b) The process is batch, and there was no evidence observed indicating that bag failure has occurred.
Record Keeping	Are required records on site: YES Type of records checked: Daily VE record and daily pressure drop records. Dates or amounts of records checked: From 3/1/12 to 10/21/15. **REQUIREMENTS:** **D.2.9**: (a) To maintain daily record of VE notations of grinding and shot peen operations noted to demonstrate compliance with condition D.2.6. (b) To maintain daily record of pressure drop of baghouses noted during normal operation when venting to atmosphere to demonstrate compliance with condition D.2.7. **FINDINGS:** **D.2.9**: (a) Daily records of VE notations of grinding and shot peen operations noted are being maintained, and compliance is being demonstrated with condition D.2.6. (b) Daily records of pressure drop of baghouses noted during normal operation when venting to atmosphere are being maintained, and compliance is being demonstrated with condition D.2.7 except as noted earlier.
Reporting	None

7. Compliance Status: During the inspections, violations of D.2.7 were noted.

8. Additional Comments: Mr. Schnettler pointed out that the acceptable pressure drop range for 125 X 31 (in the past) was the same as the range for 125 X 30; i.e., 1.0 to 1.5. He is going to look into the possibility of changing the acceptable range to 1.0 to 1.5 for 125 X 31.

D.3 1. Process Description: Insignificant activities.

2. Equipment: 1 natural gas-fired controlled pyrolysis cleaning furnace; brazing equipment, cutting torches, soldering equipment, and welding equipment; grinding and machining equipment; 1 degreaser; 4 parts degreasing operations; and 1 nylon spraying operation

3. Pollutants emitted: NOx __PM _X_PM10 _X_CO __SO2 __HAPS __ VOCs _X_

4. Control Equipment: For each piece of control equipment:

Control Equipment	Exhaust to:
Thermal Oxidizer (Pyrolysis Cleaning Furnace)	Atmosphere
Fabric Filters, Scrubbers, Mist Collectors, Wet Collectors, and Electrostatic Precipitators (Grinding & Machining Operations)	Atmosphere
Cartridge Filter (Nylon Spraying Operation)	Atmosphere

5. Applicable Rules: 326 IAC 2; 2-8-4-1; 4-2-2; 8-3-2; 5-1; and 6-3-2.

6. Observations:

Emission Limits/Standards	**REQUIREMENTS:** **D.3.1**. (a) Pyrolysis Cleaning Furnace to consist of primary and secondary chambers or equivalent. (b) Pyrolysis Cleaning Furnace to be equipped with primary burner unless burning only wood products. (c) To comply with 326 IAC 2 and 5-1. (d) Pyrolysis Cleaning Furnace to be maintained, operated, and burn waste per manufacturer's specifications or an operation maintenance (O/M) plan as specified in subsection (c). (e) Pyrolysis Cleaning Furnace not to emit PM in excess of 0.5 lb./1,000 lbs. of dry exhaust gas under standard conditions corrected to 50% excess air for incinerators with a maximum solid waste capacity less than 200 lbs./hr. (f) If any requirements of subdivision (a) through (e) are not met, owner or operator to stop charging incinerator until adjustments are made that address the underlying cause of the deviation. (g) Incinerator exempt from subdivision (e) if subject to a more stringent PM emission limit in 40 CFR 52 Subpart P, Indiana SIP. (h)(1) O/M plan must be designed to meet PM emission limitation specified in subsection (e) and include the procedures and list of wastes as noted. (h)2) The operator to review the O/M plan before initial implementation of the O/M plan and annually thereafter.

Emission Limits/Standards (Continued)	(h)(3) O/M plan to be readily available to operator. (i) The manufacturer's specifications or O/M plan for the incinerator must be available for review upon request. **FINDINGS:** **D.3.1**: (a) Pyrolysis Cleaning Furnace consisted of primary and secondary chambers. (b) Pyrolysis Cleaning Furnace was equipped with primary burner. (c) There was no evidence observed indicating that Matthew-Warren was not complying with 326 IAC 2 and 5-1. (d) There was no evidence observed indicating that the Pyrolysis Cleaning Furnace was not being maintained, operated, and burn waste per manufacturer's specifications and O/M Plan. (e) There was no evidence observed indicating that the Pyrolysis Cleaning Furnace emitted PM in excess of 0.5 lb./1,000 lbs. of dry exhaust gas under standard conditions corrected to 50% excess air for incinerators with a maximum solid waste capacity less than 200 lbs./hr. (f) There was no evidence observed indicating that any requirements of subdivision (a) through (e) were not met. (g) Matthew-Warren is aware that the incinerator is exempt from subdivision (e) if subject to a more stringent PM emission limit in 40 CFR 52 Subpart P, Indiana SIP; however, the SIP is not more stringent. (h)(1) O/M plan was designed to meet PM emission limitation specified in subsection (e) and included the procedures and list of wastes as noted. (h)2) There was no evidence observed indicating that the operator did not review the O/M plan before initial implementation of the O/M plan and annually thereafter. (h)(3) O/M plan was readily available to operator. (i) The manufacturer's specifications or O/M plan for the incinerator was available for review upon request. **REQUIREMENTS:** **D.3.2**: (a) Cleaner to be equipped with cover. (b) Cleaner to be equipped with facility for draining cleaned parts. (c) Cover to be closed whenever parts are not being handled in cleaner. (d) Cleaned parts to drain for at least 15 seconds or until dripping ceases.

Emission Limits/Standards (Continued)	(e) To have a permanent, conspicuous label summarizing operation requirements. (f) Waste solvent to be stored in closed container, and waste solvent not to be disposed of or transferred in such a manner that greater than 20% of waste solvent (by weight) can evaporate to atmosphere. **FINDINGS:** (a) Cleaners are equipped with cover. (b) Cleaners are equipped with facility for draining cleaned parts. (c) Covers are closed whenever parts are not being handled in cleaners. (d) Cleaned parts are allowed to drain for at least 15 seconds or until dripping ceases. (e) Each cleaner has a permanent, conspicuous label summarizing operation requirements. (f) There was no evidence observed indicating waste solvent was not being stored in closed container, and there was no evidence observed indicating that waste solvent was being disposed of or transferred in such a manner that greater than 20% of waste solvent (by weight) can evaporate to atmosphere. **REQUIREMENTS:** **D.3.3**: Pursuant to 326 IAC 6-3-2, the allowable PM emissions rate from any process not already regulated by 326 IAC 6-1 or any NSPS, and which has a maximum process weight rate less than 100 lbs./hr. not to exceed 0.551 lbs./hr. **FINDINGS:** **D.3.3**: There was no evidence observed indicating that the PM emissions rate exceeded 0.551 lbs./hr.
Preventive Maintenance Plan	None
Stack Testing	None
Compliance Determination	**REQUIREMENTS:** **D.3.4**: To operate integral thermal oxidizer for the pyrolysis cleaning furnace and control VOC emissions from the facility at all times pyrolysis cleaning furnace is operating. **FINDINGS:** **D.3.4**: There was no evidence observed indicating that the integral thermal oxidizer for the pyrolysis cleaning furnace was not operating at all times the pyrolysis cleaning furnace was operating.

Compliance Monitoring	None.
Record Keeping	None.
Reporting	None.

7. Compliance Status: During the inspections, no violations were noted.

8. Additional Comments: The vapor pressure of the solvent is 0.05 mm Hg as measured at 20 degrees Centigrade.

GENERAL SOURCE ISSUES:

1. Does the permit accurately represent the emission units observed: YES
2.
3. Have violations been documented by photographs? NO

4. Were Pollution Prevention Opportunities discussed: NO

5. Per the source, are they required to have a Risk Management Plant: NO

   If yes, does the source have a plan?

   Have the employees been trained?

ADDITIONAL COMMENTS:

Annual Compliance Certification (B.9): The 2014 Annual Compliance Certification was submitted in a timely manner.

Quarterly Deviation and Compliance Monitoring Reports (C.17): Required reports have been submitted in a timely manner.

Equipment/Control Operating Status

Equipment	Control	Stack	Parameter	Limit	Operating Status
Segment SCP101 Plant 1	None	S101A S101C S101D	none	none	Operating
Segment SCP102 Plant 1	None	S102A S102B	none	none	Operating
Segment SCP103 Plant 1	None	S103A S103B	none	none	Operating
Segment SCP201 Plant 2	None	No ID	none	none	Idle
Segment SCP301 Plant 3	None	No ID	none	none	Idle
Automatic Grinder Tooling Dept. Plant 1	Baghouse 125X030		none	none	Operating
Grinder 125F21 Dept. 122 Plant 1	Dust Collector GP101		none	none	Idle
Grinder 125F77 Dept. 122 Plant 1	Dust Collector GP101		none	none	Idle
Shot Peen Dept. 122 Plant 1	Dust Collector 533X005 (GP103)		none	none	Idle

Equipment	Control	Stack	Parameter	Limit	Operating Status
2 Grinders Dept. 125 Plant 1	Dust Collector 125X30 (GP101)				1 operating 1 idle
4 Grinders Dept. 125 Plant 1	Dust Collector 125X031 (GP102)				1 operating 1 idle
10 Grinders Dept. 125 Plant 1	Dust Collector 125X032 (GP104)				Idle
2 Hand Grinders Dept. 125 Plant 1					Idle
Shot Peen 123H004 Dept. 119 Plant 1	Dust Collector	Vents inside			Idle
4 Shot Peens Shot Peening Dept. Plant 1	Baghouse 533X005 (GP103)				Idle
Grinder Dept. 123 Plant 1	Dust Collector 125X032 (GP104)				idle
Shot Peen 127H001 Dept. 127 Plant 1	Dust Collector 533X005 (GP103)				Idle
3 Grinders Dept. 127 Plant 1	Dust Collector 125X032 (GP104)				Idle
1 Chamfer Dept. 127 Plant 1	Dust Collector 125X032 (GP104)				Idle
Shot Peen 533H011 Hot Coil Dept. Plant 2	Dust Collector 230X024 (GP202)				Idle
Shot Peen 30H12 Hot Coil Dept. Plant 2	Dust Collector 230X024 (GP202)				Operating
2 Spring Presses Hot Coil Dept. Plant 2					Idle
2 hand grinders Hot Coil Dept. Plant 2	Dust Collector 233X023 (GP201)				Idle
2 Abrasive Saws Hot Coil Dept. Plant 2	Drum Dust Collector				Idle
Powder Coating Application System 280PC01 Plant 6	Dry Filter				Operating

Equipment	Control	Stack	Parameter	Limit	Operating Status
Pyrolysis Cleaning Furnace 280J003 Plant 6	Integral Thermal Oxidizer				idle
Belt Sander Plant 3	Dust Collector	Vents insde			Idle
Drill Presses, Cutting Saws, and Lathes Tool & Dye Shop Plant 3					idle
Blanchard Wet Grinder 340F027 Tool & Dye Shop Plant 3					idle
Wet Surface Grinder Tool & Dye Shop Plant 3					idle
2 Surface Grinders Tool & Dye Shop Plant 3					Idle
Cutoff Saw Tool & Dye Shop Plant 3					Idle
5 Grinders Tool & Dye Shop Plant 3	Dust Collector				Idle
Bead Blast Unit 340H002 Tool & Dye Shop Plant 3	Dust Collector				Idle
Shot Peen Unit 550H01 Plant 5	Dust Collector 550X01				idle
Shot Peen Unit 550H02 Plant 5	Dust Collector 550X02				idle
Wet Grinder 125F041 Plant 1 (1st floor)	Dust Collector				Idle
Grinder 122F11 Dept. 22	Dust Collector 122X01				Idle
Grinder 122F04 Dept.22	Dust Collector 122X01				Idle
Shot Peen 230H001 Hot Coil Dept. Plant 2	Dust Collector 230X002				Idle
Degreaser Plant 1 (1st floor)					idle

Equipment	Control	Stack	Parameter	Limit	Operating Status
2 Degreasers Plant 1 (basement)					Idle
Degreaser Plant 2					idle
Degreaser Plant 3					Idle
Nylon Spraying Operation Plant 3	Cartridge Filter				Idle

CONCLUSIONS: Violations of permit condition D.2.7were noted during the inspections.

RECOMMENDATIONS: An Inspection Summary/Violation letter will be issued.

ADDITIONAL COMMENTS: Mr. Schnettler's mailing address is 500 East Ottawa Street, P.O. Box 7008, Logansport, Indiana 46947.

ATTACHMENTS: None.

cc: David Rice, Office of Air Quality