

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Other

N067731274

FACILITY: Steelcase Inc.- Kentwood Complex		SRN / ID: N0677
LOCATION: 5353 Broadmoor Avenue SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Lynn Zimmerman		ACTIVITY DATE: 09/09/2015
STAFF: Denise Plafcan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: PCE Section 2 Kentwood West announced scheduled inspection Compliant		
RESOLVED COMPLAINTS:		

Denise Plafcan (DP) met with Lynn Zimmerman, the corporate environmental contact and since he is located in another building, he was notified during the inspection of the Wood Plant (Section 6) that the inspection of Kentwood West manufacturing plant (KWW) Section 2 was going to be conducted. The purpose of this PCE inspection was to determine compliance with ROP No. MI-ROP-N0677-2015 Section 2, and AQD rules and regulations. There was a recent PTI issued, PTI No. 79-15, which is a Source-Wide PSD Opt-out permit containing limitations for Section 3 of the ROP, the coal fired boiler. Facility wide compliance with PTI No. 79-15 was determined by AQD inspector Steve Lachance when he conducted the PCE of Section 3 of the ROP.

Prior to entering the facility, DP did not note any unusual operating conditions or odors. DP briefly met with Lynn and Mike Carter, Plant Manager, and explained the purpose of the inspection and provided a copy of the Environmental Inspection Brochure.

KWW manufactures and powder coats metal parts for desks and large case goods. Due to lean manufacturing they focus on production of a specific order from the time they receive the order to out the door. They use local steel and inventory only a few days out so very little raw material and end product inventory is stored on site. There are now 5 powder coat lines. The newest line, line no. 5, is extremely compact, does not use any automated applicators and has 4 manual applicators in a very small foot print. The facility does not have any liquid coating or adhesive operations. EUKWW-SOLVENTSHEET no longer uses solvent but instead uses felt pads so this emission unit no longer has any emissions. Machining operations consist of stamping, forming, cutting, bending, welding, etc. of the metal sheets as they come off of the rolls. All of the metal manufacturing operations are exempt under Rule 285(l)(vi)(B). Any emissions from the machining operations are filtered through Torit dust collectors or released inside the plant.

Standard language reporting requirements are not listed individually and have been removed from this compliance inspection report since all reporting is being completed and submitted as required. Compliance Certification reporting is documented in MACES. Any sections or conditions designated as NA or Not Applicable have also been removed from this compliance inspection report.

EMISSION UNIT SUMMARY TABLE

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))
EUKWW-NESHAPRRRR	This group consists of emission units subject to the Metal Furniture NESHAP Subpart RRRR
EUKWW-RULE287	This group consists of Rule 201 exempt emission units pursuant to Rule 287(c).
EUKWW-RULE290	This group consists of Rule 201 exempt emission units pursuant to Rule 290.
EUKWW-COLDCLEANER	This group consists of miscellaneous cold cleaners installed after 1979 pursuant to Rule 281 (h).
EUKWW-SOLVENT	Final assembly and basic area solvents.
EUKWW-SOLVENTSHEET	Sheet line solvent usage. No longer being used at the plant

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))
EUKWW-MT-EMG-GEN	Maintenance emergency generator, exempt from Rule 201 pursuant to Rule 282(b(ii)).
EUKWW-ADHWELD	Adhesive usage, weld area.

EUKWW-MT-EMG-GEN
EMISSION UNIT CONDITIONS
DESCRIPTION

On-site, stationary, diesel-fired internal combustion engine for emergency/backup electric generation as specified in 40 CFR Part 63, Subpart ZZZZ ("Reciprocating Internal Combustion Engine (RICE) Maximum Achievable Control Technology (MACT)). This unit is classified as an existing emergency stationary RICE with a site rating of more than 500 brake HP at a major source of HAP emissions as stated in 40 CFR 63.6590(b)(3)(iii).

The facility purchases Ultra-low sulfur diesel fuel (15 ppm by weight sulfur), which provides for compliance with the permit's sulfur-in-fuel restriction. The MSDS is attached to the complete FCE since the same fuel is used at all locations. While this is a named source per 40 CFR 63, Subpart ZZZZ, it would only be subject to further regulation upon modification or reconstruction.

FLEXIBLE GROUP SUMMARY TABLE

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGKWW-NESHAPRRRR	This group consists of emission units subject to the Metal Furniture NESHAP Subpart RRRR.	EUKWW-NESHAPRRRR EUKWW-RULE287 EUKWW-RULE290 EUKWW-SOLVENT EUKWW-SOLVENTSHEET
FGKWW-RULE287(c)	This group consists of Rule 201 exempt emission units pursuant to Rule 287	EUKWW-NESHAPRRRR EUKWW-RULE287
FGKWW-RULE290	This group consists of Rule 201 exempt emission units pursuant to Rule 290.	EUKWW-NESHAPRRRR EUKWW-RULE290 EUKWW-SOLVENT EUKWW-SOLVENTSHEET EUKWW-ADHWELD
FGKWW-COLDCLEANERS	This group consists of miscellaneous cold cleaners installed after 1979 and subject to Rule 281 (h).	EUKWW-COLDCLEANER

FGKWW-NESHAPRRRR
FLEXIBLE GROUP CONDITIONS

Each new, reconstructed, and existing affected source engaged in the surface coating of metal furniture, as identified within 40 CFR, Part 63, Subpart RRRR, 63.4881(a) to (c). Surface coating is defined by 40 CFR 63.4881 as the application of coating to a substrate using, for example, spray guns or dip tanks. Metal furniture is defined in 40 CFR 63.4881(a)(2). The affected source includes the collection of all items listed in 40 CFR 63.4882(b)(1) through (4). Since the plant only uses powder coating this subpart is not applicable in accordance with 40 CFR 63.4881(2)(c)(1). This table has been deleted from this inspection report.

FGKWW-METALLIQUID

This group consists of applicable operations that apply adhesives and liquid coating to metal furniture and are subject to Rule 610 and 40 CFR Part 60 Subpart EE. Since the plant only uses powder coating, the conditions of FGKWW-METALLIQUID are not applicable and the remainder of this table has been deleted from this compliance inspection report.

FGKWW-RULE 287(c)

Currently, there aren't any emission units exempt from Rule 201 pursuant to Rules 278 and 287(c). The conditions of FGKWW-RULE 287(c) are not applicable and the remainder of this table has been deleted from this inspection report.

FGKWW-RULE290

Currently there aren't any emission units exempt from Rule 201 pursuant to Rules 278 and 290. The conditions of FGKWW-RULE290 are not applicable and the remainder of this table has been deleted from this inspection report.

FGKWW-COLDCLEANERS

The two cold cleaners at KWW are considered new since they were installed in 1988. One of the cleaners is 3 feet by 1 foot and is a dip tank. The second is 4 feet by 2 feet and is a closed tank. Both units had correct operational instructions posted on the lid of the tanks. All degreasers / cold cleaners observed were Rule 201 exempt by Rule 281(h) are less than 10 square feet surface area,

Based on the physical inspection of the building and equipment this PCE appears to be in compliance with ROP No. MI-ROP-N0677-2015 Section 2 and applicable AQD rules and regulations.

NAME *Dominic Plagca*

DATE *9.29.15*

SUPERVISOR *PAB*

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Other

N067730457

FACILITY: Steelcase Inc.- Kentwood Complex		SRN / ID: N0677
LOCATION: 5353 Broadmoor Avenue SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Lynn Zimmerman ,		ACTIVITY DATE: 08/04/2015
STAFF: Steve Lachance	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: PCE for Energy Center Portion of Facility, including provisions of PTI # 79-15.		
RESOLVED COMPLAINTS:		

SL conducted an inspection of the Steelcase Kentwood Complex' Energy Center on Tuesday, August 4, 2015. Weather conditions were mixed/partly cloudy, about 75-80F and with westerly winds at about 10-15 mph. Prior to arriving on-site, SL observed the facility's main stack for visible emissions from 60th Street (south of the property.) No visible emissions were observed. Note, Visible Emissions were also assessed during the afternoon of June 26, 2015 from this same position, with no visible emissions noted from the Energy Center stacks.

Requirements for the Energy Center are included in Renewable Operating Permit (ROP) No. MI-ROP-N0677-2014 and recent "opt out" Permit to Install PTI No.79-15. The Energy Center is "Section 3" of the ROP, and the Energy Center fuel use limitations in PTI No. 79-15 maintain the source's status as "minor" for future NSR/PSD Permitting.

The Energy Center has four boilers. The Energy Center provides steam and power to the Steelcase Kentwood Complex. Boiler 1 fires natural gas and has a rated capacity of 30,000 lb./hr. Boilers 2 and 3 fire both coal and natural gas and have rated capacities of 40,000 lb./hr and 80,000 lb./hr., respectively. Boiler 4 fires natural gas and has a rated capacity of 80,000 lb./hr, which is derated to 70,000 lb./hr. Boilers 2 and 3 have a common stack and share Continuous Emissions Monitoring Systems for NOx, SO2, diluent and flow.

The boilers are subject to the Major Source Boiler MACT (40 CFR 63, Subpart DDDDD.) The compliance date for this rule is 1/31/16. Applicable requirements have been rolled into the renewed ROP. Boilers 1 and 4 are "Gas 1" Units per this rule, while Boilers 2 and 3 are "Solid Fuel Stoker" boilers.

The backup/emergency diesel generator (EUEC-DIE-GENER) is subject to 40 CFR 63 Subpart ZZZZ MACT standards for RICE, and would be further regulated by this rule upon modification or reconstruction of this equipment.

SL arrived on-site at about 1 PM. The facility was represented during the inspection by Lynn Zimmerman, Boiler Supervisor Mr. Bill Bosch and boiler operator "Jeff". No visible emissions, odors, or fugitive dust conditions were noted upon entry to the Energy Center property.

Regulated equipment, as summarized in Section 3 of ROP No. MI-ROP-N0677-2014, include the following:

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUEC-BOILER1	Natural gas-fired Boiler # 1 has a maximum heat input rate of 43.2 mmBtu/hr and a maximum steam production rate of 30,000 lb/hr. Emissions are not controlled.	09-01-1963/NA	FGEC-NATGASBOILERS
EUEC-BOILER2	Coal-fired Boiler #2 has a maximum heat input capacity of 48 mmBtu/hr and a maximum steam production rate of 40,000 lb/hour. Particulate matter emissions are controlled by cyclones and a baghouse.	12-01-1983/NA	FGEC-BOILERS2&3 FGEC-BOILERS2&3CAM FGEC- StokersCoalSolidFuel
EUEC-BOILER3	Coal-fired Boiler #3 has a maximum heat input capacity of 96 mmBtu/hr and a maximum steam production rate of 80,000 lb/hr. Particulate matter emissions are controlled by cyclones and a baghouse.	06-02-1982/NA	FGEC-BOILERS2&3 FGEC-BOILERS2&3CAM FGEC- StokersCoalSolidFuel
EUEC-BOILER4	Natural gas-fired Boiler # 4 has a maximum heat input rate is 90 mmBtu/hr and a maximum steam production rate of 70,000 lb/hr. Emissions are not controlled.	12-01-1983/NA	FGEC-NATGASBOILERS
EUEC-COALHANDLING	This emission group consists of the coal and ash handling equipment. Particulate matter emissions are controlled by dust suppression and internally vented baghouses.	09-01-1983/NA	NA
EUEC-DIE-GENER	On-site, stationary, diesel-fired internal combustion engine for emergency backup electric generation. This unit is identified as an existing, backup/emergency use unit subject to 40 CFR 63, Subpart ZZZZ ("Reciprocating Internal Combustion Engine {RICE} MACT"). Emissions are not controlled.	10-04-1983/NA	NA
EUEC-RULE290	This group consists of emission units subject to Rule 290.	NA	FGEC-RULE290
EUEC-COLD CLEANER	This group consists of miscellaneous cold cleaners.	After July 1, 1979/NA	FGEC-COLDCLEANERS

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
FGEC-BOILERS2&3	This group consists of Boilers # 2&3. Boiler #2 has a maximum heat input capacity of 48 mmBtu/hr and a maximum steam production rate of 40,000 lb/hour. Boiler #3 has a maximum heat input capacity of 96 mmBtu/hr and a maximum steam production rate of 80,000 lb/hr.	EUEC-BOILER2 EUEC-BOILER3
FGEC-BOILERS2&3CAM	This group consists of the 40 CFR 64 requirements for a Compliance Assurance Monitoring (CAM) plan for particulate matter emissions from EUEC-BOILER2 and EUEC-BOILER3. Other requirements for these boilers are addressed in FGEC-BOILERS2&3.	EUEC-BOILER2 EUEC-BOILER3
FGEC-RULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUEC-RULE290
FGEC-COLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281 (h) or Rule 285(r)(iv). New cold cleaners were placed into operation on or after July 1, 1979.	EUEC-COLDCLEANER

And...

FGEC-STOKERSCOAL/ SOLIDFUEL	Existing stokers designed to burn coal/solid fossil fuel; Major Source Boiler MACT Requirements per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in § 63.6 (i).	EUEC-BOILER2 EUEC-BOILER3
FGEC-NATGASBOILERS	Existing natural gas (Gas1) Major Source Boiler MACT Requirements per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).	EUEC-BOILER1 EUEC-BOILER4

SL announced his intention to inspect the Energy Center relative to applicable air us requirements at this time. SL provided copies of the DEQ's "Environment Inspections: Rights and Responsibilities" brochure and the new, Boiler MACT card.

Steelcase representatives indicated that only Boiler 2 was operating. Control room data indicated that it was operating at about 21-23% feed capacity (about 5 kpph steam production) during the inspection. The boilers are under-utilized based on diminished plant demands on this campus. The following sections discuss findings for each regulated Emission Unit/Flexible Grouping.

EUEC-BOILER1

Not in operation at the time of the inspection, and rarely utilized based on campus steam needs. Fuel oil capability has been removed (removal of storage tank in 2009), and so this boiler now burns natural gas only. Compliance with applicable SO₂ limits is assured on natural gas.

EUEC-BOILER4

Not in operation at the time of the inspection, and rarely utilized based on campus steam needs. Fuel usage records were readily available and natural gas metering equipment was observed.

FGEC-BOILERS2&3

Per the above-referenced report, Boilers #2 and #3, comprising this flexible group, provide the majority of the campus' energy needs. These units share CEMS and COMS, which provide the basis for compliance with applicable emission limits:

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirement
1. SO ₂	227.86 pounds per hour ²	Based on a 24-hour period of operating hours, as determined at the end of each calendar day	FGEC- BOILERS2&3 (The limit applies to combined boiler operations.)	SC VI.3-VI.8 (CEMS)	40 CFR 52.21
2. SO ₂	1.60 pounds per million Btu heat input per boiler ²	Based on a 24-hour period of operating hours, as determined at the end of each calendar day	EUEC-BOILER2 EUEC-BOILER3 (This limit applies to each boiler.)	SC VI.3-VI.8 (CEMS)	40 CFR 52.21
3. NO _x	0.60 pound per million Btu heat input per boiler ²	Based on a 24-hour period of operating hours, as determined at the end of each calendar day	EUEC-BOILER2 EUEC-BOILER3 (This limit applies to each boiler.)	SC VI.2 & VI.4-VI.8 (CEMS)	40 CFR 52.21
4. Opacity	10% ²	Per 6-minute period	FGEC- BOILERS2&3 (The limit applies to combined boiler operations.)	SC VI.1 & VI.6-VI.8 (COMS)	R 336.1301(1) (c)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirement
5. Particulate Matter	0.05 pound per million Btu heat input per boiler ²	At all times, as verifiable through any requested stack testing	EUEC-BOILER2 EUEC-BOILER3 (The limit applies to each individual boiler.)	GC 13-15 (Any requested stack test; CAM based on COMS; see FGEC-BOILERS2&3CAM))	40 CFR 52.21

At the time of the inspection, the following values for Boiler #2 were observed in the Control Room:

Opacity:0.5% (6-minute average)

21-23% coal feed rate (producing 5000 pph steam)

NOx: 0.55 lb/mmBtu instantaneous; current daily value of 0.54; limit for daily average =0.6

SOx: 0.47 lb/mmBtu instantaneous; current daily value of 0.45; limit for daily average = 1.6

SL viewed trend graphs over the last 13 hours or so, and these indicated generally very steady conditions for each monitored parameter. (Exceptions were CEMS/COMS calibration and minor load adjustments; load adjustments are based on plant demand or NOx emissions; the operator confirmed that NOx is the defining variable for compliant operation of this boiler.)

Both Mr. Zimmerman and "Bill" again acknowledged the mature, reliable state of the current CEMS. The CEMS last passed a Relative Accuracy Test Audit last November. I requested calibration info for the CEMS; this day's "Daily Calibration Report" (**Attachment A**) indicates that each system "passed" the day's calibrations, and so observed CEMS values are considered valid.

Daily Reports" for Opacity, NOx and SOx for this day (**Attachment B**) indicate steady operation and recorded compliance with the above applicable emissions limits.

A similar report for June 26, 2015 (**Attachment C**) indicates the same for that "random" date, but for which Visible Emissions were documented as "none."

The required log of all CEMS adjustments, etc. is maintained electronically and was readily available. There had been no adjustments since June. While these CEMS were installed voluntarily, they are operated per Part 60 standards. All calibrations were available and timely passed, there were no recorded periods of excess emissions in this time frame, and

the monitors' availability (% Operating Time available) are acceptable per the following, as summarized from the attached "Monthly Uptime Reports" for each monitor, each month. See **Attachment D**:

June	July	August-015	
SO2	99.58	100	100
NOx	99.58	100	100
CO2	99.58	100	100

These boilers are subject to Compliance Assurance Monitoring (CAM) for PM. CAM is based on Continuous Opacity Monitoring System (COMS). The facility's CAM Plan is contained in FGEC-BOILERS2&3CAM, which includes the following conditions:

1. The permittee shall utilize COMS-recorded opacity as an indicator of the proper functioning of the baghouse particulate control. The appropriate range of opacity defining proper functioning of the baghouse particulate control is 0-10% opacity. **(40 CFR 64.6(c)(1)(i and ii))**
2. The permittee shall continuously record opacity; six-minute average values shall be based on 24 or more equally spaced instantaneous opacity measurements per six-minute period. **(40 CFR 64.6(c)(1)(iii))**
3. The permittee shall complete daily zero and calibration tests; conduct necessary preventative maintenance and demonstrate adequate performance through an annual monitor audit. **(40 CFR 64.6(c)(1)(iii))**
4. An excursion will occur if opacity in excess of 10% is recorded for a duration exceeding two hours. **(40 CFR 64.6(c)(2))**
5. The permittee shall conduct all required monitoring per the facility's CAM Plan and otherwise satisfy the requirements specified in 40 CFR 64.7 through 40 CFR 64.9. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
6. The permittee shall properly maintain the monitoring systems, including maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**
7. The required monitoring systems shall collect data for all required intervals when the emission unit is operating. **(40 CFR 64.7(c))**
8. The permittee shall restore operation of the emission unit, control device, and associated pollutant capture system equipment to normal/compliant operation as quickly as possible in response to any noted exceedance or excursion. **(40 CFR 64.7(d))**
9. The permittee shall promptly notify AQD for the need to modify the CAM Plan if it is found to be inadequate and shall submit a proposed modification to the ROP if necessary. **(40 CFR 64.7(e))**

Based on review of COMS data, discussions with Steelcase personnel, and required semi-annual reporting, CAM appears to be properly implemented for these units. COMS availability has been acceptable, and no excursions/exceedances have been identified.

SL reviewed the last required ROP Reports (for the period ending 12/31/14; Annual and Semi-Annual Deviations and Certification, CAM Excursions and CAM Monitor Down-time) and found no actionable items for Section 3 (Energy Center) in these reports.

EUEC-COALHANDLING

No visible emissions were observed to be associated with this equipment (but active loading was not taking place at the time of the inspection.) The coal conveyor, room and enclosure were notably "clean" and had been recently hosed down. No issues associated with this equipment were identified.

EUEC-DIE-GENER

This small (75 kW) gen-set is diesel-fired. The facility purchases Ultra-low sulfur diesel fuel (15 ppm by weight sulfur), which provides for compliance with the permit's sulfur-in-fuel restriction. Documentation of diesel purchases had previously been provided; this documentation fulfills the requirements Appendix 3-3.1. While this is a named source per 40 CFR 63, Subpart ZZZZ, it would be subject to further regulation only upon modification or reconstruction.

FGEC-RULE290

This table had been included in the ROP so as to simply avoid any future need to modify the permit upon installation of such equipment.

FGEC-COLDCLEANERS

One regulated unit was observed. It was closed while not in use, with procedures properly posted. The machine does not use heating or agitation for parts cleaning. The same solvent as previously documented is still in use; an MSDS for the Safety Kleen Solvent 150 had been previously supplied to this office.

PTI No. 79-15

This permit creates Material Limits and Associated Emission Limits that establish the source as a whole as a synthetic minor source for any future NSR/PSD permitting. The important limits are :

Coal 28,000 tpy
Natural Gas 471 mmcf/yr

These will maintain emissions at or below:

NOx <225 tpy
SOx < ~~1225~~ tpy

225 SL

The permit further requires records to be maintained and compiled on a monthly basis to demonstrate compliance with these on a 12-month rolling basis. Records are required to be available by the end of each calendar month, for the previous month.

SL was a bit early with this inspection, since the permit was only issued in July, and records for that month are not required until the end of the current month. But SL requested records for June (as maintained already for the ROP), and SL believes that all the elements for "PTI 79-15 records" are available; the presentation might need to be slightly tweaked.

The attached "Corporate Environmental" report for June, 2015 (**Attachment E**) already totals NOx and SOX based on fuels used and MAERS emission factors. Daily Records from the Powerhouse capture Fuels Used (**Attachment F**); and These are further compiled into Powerhouse Stat Reports (**Attachment G**.) SL verified that these seem internally consistent

and also consistent with the facility's EI2014 MAERS submittal (reviewed by SL in March.) SL noted one apparent discrepancy; Why were reported NOx and SOx emissions higher (and different) than "normal" on June 13, 2015? (See **Attachment E**.) This uncovered a typo (**Attachment H**) that the facility was able to track down and remedy this same day. While the values portrayed in **Attachment E** for 6/13/15 are still compliant with emission limits, SL conveyed the importance of knowing where the data comes from and wariness for instrumental or human error.

Operation levels, as portrayed in MAERS EI2014 and in values observed in these documents are well below those allowed by PTI No. 79-15.

BOILER MACT DISCUSSION

The Boiler MACT (40 CFR 63, Subpart DDDDD for major sources) has a future compliance date of 1/31/16, and so a compliance inspection is not really in order at this time. The facility has provided notifications that Boilers 1 and 4 are "Gas1" units, while Boilers 2 and 3 are "Stoker/Solid Fuel/Coal" units. Requirements for each category are included as Flexible Groups in the current ROP.

Required Energy Assessments and tune-ups are due by the compliance date. The Coal units are subject to emission limits and therefore have testing requirements, too. As discussed with facility personnel, it is likely that coal-firing will cease before the Boiler MACT compliance date, and only "Gas1" units will be operated thereafter. This would ease testing requirements and any difficulties in complying with MACT emission limits for the coal-fired boilers.

ROP Maintenance Issues and Questions

As discussed, the facility is faced with the following ROP maintenance issues:

Incorporation of new PTI No. 79-15 into the ROP;

Deletion of Boiler MACT "Coal" requirements if Units 2 and 3 are properly retired or certified as Gas1 units (per removal of coal, coal-feeding ability, restriction through permitting, etc.)

Also, the utility of a Fall 2014 RATA for Units 2 and 3 CEMS, if the units will no longer be burn coal, was questioned. This is a fair question, but the basis for complying with NOx and CEMS emission limits while burning coal is the use of a properly QA'd CEMS. There are no other monitoring provisions included in the permit. SL did refer the facility to Ms. Kajiya-Mills of AQD-TPU based on her familiarity with the nuances of Part 60 CEMS; and introduced this as a discussion item with Supervisor HH. Further discussion among all parties is possible.

SUMMARY

Based on observations during the on-site inspection; review of requested records; review of previously submitted reports; proper QA/QC of the required CEMS; visible emissions observations; and certification of performance relative to the ROP, SL considers the facility to be in compliance with air use rules, regulations and the requirements of Section 3 of ROP No. MI-ROP-N0677-2014, as well as the "opt-out" fuel limitations in PTI No. 79-15.

Attachments

A: Daily Calibration Report for 8/4/15

B: Daily Emission Reports for 8/4/15 (partial)

C: Daily Emission Report for 6/26/15

D: Monthly Uptime Reports for CEMS; June, July August (partial), 2015

E: Corporate Environmental Summary Report, Daily Emissions for June 2015

F: Reading Review Screens from June 2015 (Daily Fuel Use and Operations)

G: Powerhouse Summaries (Various parameters by week and month)

H: Reading Review Screen with typographical entry error for 6/13/15

NAME 

DATE 8/6/15

SUPERVISOR 

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Other

N067731095

FACILITY: Steelcase Inc.- Kentwood Complex		SRN / ID: N0677
LOCATION: 5353 Broadmoor Avenue SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Lynn Zimmerman		ACTIVITY DATE: 09/09/2015
STAFF: Denise Plafcan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: PCE Section 5 (non-manufacturing) Announced scheduled inspection Compliant		
RESOLVED COMPLAINTS:		

Denise Plafcan (DP) met with Lynn Zimmerman, the corporate environmental contact and since he is located in another building, he was notified during the inspection of the Wood Plant (Section 6) that the inspection of Kentwood Non-Manufacturing (KW) Section 5 was going to be conducted. The extent of this inspection includes the shipping or truck bay. The purpose of this PCE inspection was to determine compliance with ROP No. MI-ROP-N0677-2015 Section 5, and AQD rules and regulations. There was a recent PTI issued, PTI No. 79-15, which is a Source-Wide PSD Opt-out permit containing limitations for Section 3 of the ROP, the coal fired boiler. Facility wide compliance with PTI No. 79-15 was determined by AQD inspector Steve Lachance when he conducted the PCE of Section 3 of the ROP.

Prior to entering the facility, DP noted no unusual operating conditions or odors. Lynn and DP were met by Jo Robinson and Dennis Tebout. DP explained the purpose of the inspection and provided a copy of the Environmental Inspection Brochure. Randy also joined the inspection and Jo, Dennis and Randy were all escorts on the inspection. The truck bay area is very clean and well organized. They have added Auxiliary Power Units (APU) to the vehicles which allow them to run the truck's engine when parked or idling without turning on the big engine. There are 2 cold cleaners and one emergency engine on site. The emergency engine was on a mezzanine with only a ladder for access so the inspection was conducted from the ground floor.

Standard language reporting requirements are not listed individually and have been removed from this compliance inspection report since all reporting is being completed and submitted as required. Any sections or conditions designated as NA or Not Applicable have also been removed from this compliance inspection report. Compliance Certification reporting is documented in MACES.

EMISSION UNIT SUMMARY TABLE

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUKW-RULE287	This group consists of Rule 201 exempt emission units pursuant to Rule 287.	FGKW-RULE287(c)
EUKW-RULE290	This group consists of Rule 201 exempt emission units pursuant to Rule 290.	FGKW-RULE290
EUKW-COLDCLEANER	This group consists of miscellaneous cold cleaners installed after 1979 Rule 201 exempt pursuant to Rule 281 (h).	FGKW-COLDCLEANERS
EUKW-MT-EMG-GEN-FLT-NG	Maintenance emergency generator, exempt from Rule 201 pursuant to Rule 282(b(i)).	FGKW-MT-EMG-GEN

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUKW-MT-EMG-GEN-CDC1	Maintenance emergency generator, exempt from Rule 201 pursuant to Rule 282(b(ii)).	CDC Building and equipment is no longer owned by Steelcase. Therefore this equipment was not part of this compliance inspection.
EUKW-MT-EMG-GEN-CDC2	Maintenance emergency generator, exempt from Rule 201 pursuant to Rule 282(b(ii)).	
EUKW-MT-EMG-GEN-CDC3	Maintenance emergency generator, exempt from Rule 201 pursuant to Rule 282(b(ii)).	
EUKW-MT-EMG-GEN-PDC	Maintenance emergency generator, exempt from Rule 201 pursuant to Rule 282(b(ii)).	

FLEXIBLE GROUP SUMMARY TABLE

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGKW-MT-EMG-GEN	This group consists of maintenance emergency generators exempt from Rule 201 pursuant to Rule 282(b(i or ii)).	EUKW-MT-EMG-GEN-FLT-NG
FGKW-RULE287(c)	This group consists of Rule 201 exempt emission units pursuant to Rule 287(c)	EUKW-RULE287
FGKW-RULE290	This group consists of Rule 201 exempt emission units pursuant to Rule 290.	EUKW-RULE290
FGKW-COLDCLEANERS	This group consists of miscellaneous cold cleaners installed after 1979 Rule 201 exempt pursuant to Rule 281 (h).	EUKW-COLDCLEANER

FGKW-MT-EMG-GEN

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

On-site, stationary, natural gas and diesel-fired internal combustion engines for emergency/backup electric generation. These units are identified as existing, units subject to 40 CFR Part 63, Subpart ZZZZ ("Reciprocating Internal Combustion Engine {RICE} MACT").

Emission Units: EUKW-MT-EMG-GEN-FLT-NG, EUKW-MT-EMG-GEN-PDC

The facility purchases Ultra-low sulfur diesel fuel (15 ppm by weight sulfur), which provides for compliance with the permit's sulfur-in-fuel restriction. The MSDS is attached to the complete FCE since the same fuel is used at all locations. While this is a named source per 40 CFR 63, Subpart ZZZZ, it would be subject to further regulation only upon modification or reconstruction.

FGKW-RULE287(c)

Currently there aren't any emission units exempt from Rule 201 pursuant to Rules 278 and Rule 287(c). The conditions of FGKWW-RULE287(c) are not applicable and the remainder of this table has been deleted from this inspection report.

FGKW-RULE290

Currently there aren't any emission units exempt from Rule 201 pursuant to Rules 278 and 290. The conditions of FGKWW-RULE290 are not applicable and the remainder of this table has been deleted from this inspection report.

**FGKW-COLDCLEANERS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION - Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979. There are only 2 cold cleaners at the truck terminal, included in KW, which are considered new since they were installed in 1988. The two cleaners are 1 foot by 2 feet and use compliant solvents, Safety Kleen the same material used at all of the other plants (see MSDS attached to the FCE table). All cold cleaners were labeled with appropriate operating instructions and closed at the time of the inspection.

Based on the physical inspection of the building and equipment this PCE appears to be in compliance with ROP No. MI-ROP-N0677-2015 Section 5, AQD rules and regulations.

NAME *Denise Pappas*

DATE *9-29-15*

SUPERVISOR *PAB*

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

N067731275

FACILITY: Steelcase Inc. - Kentwood Complex		SRN / ID: N0677
LOCATION: 5353 Broadmoor Avenue SE, KENTWOOD		DISTRICT: Grand Rapids
CITY: KENTWOOD		COUNTY: KENT
CONTACT: Lynn Zimmerman ,		ACTIVITY DATE: 09/02/2015
STAFF: Denise Plafcan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: PCE Section 6 announced scheduled inspection Compliant		
RESOLVED COMPLAINTS:		

Denise Plafcan (DP) and Kaitlyn DeVries met with Lynn Zimmerman, the corporate environmental contact and Karen Andrus, the plant engineer to conduct an announced scheduled inspection. Since Lynn is located in another building, he was notified the day before the inspection of the Wood Plant (Section 6). The purpose of this PCE inspection was to determine compliance with ROP No. MI-ROP-N0677-2015 Section 6, and AQD rules and regulations. There was a recent PTI issued, PTI No. 79-15, which is a Source-Wide PSD Opt-out permit containing limitations for Section 3 of the ROP, the coal fired boiler. Facility wide compliance with PTI No. 79-15 was determined by AQD inspector Steve Lachance when he conducted the PCE of Section 3 of the ROP.

Since the last inspection there haven't been any major changes to the plant itself. They recently sold the Corporate Development Center (CDC), which was part of Section 5 of the ROP and were issued PTI 79-15 which is a PSD Opt-out permit placing limits on the coal fired / natural gas fired boiler. The company is now looking at resubmitting the stationary source determination request and having the Wood Plant classified as a separate entity. They would like to have the PTI application in by November 2015 and DP explained it would need the 75 day comment period whether as the PTI or as the new ROP. Once the separate stationary source is finalized the Wood Plant would get a new SRN and could be a minor source for HAPs and VOCs. However, the wood plant would still be subject to Title V permitting because of the once- in always-in policy of the Wood Furniture NESHAP.

Standard language reporting requirements are not listed individually and have been removed from this compliance inspection report since all reporting is being completed and submitted as required. Compliance Certification reporting is documented in MACES. Stack vent dimensions and height were not evaluated as part of this compliance inspection and those conditions were removed from this compliance inspection summary. Any sections or conditions designated as NA or Not Applicable have also been removed from this compliance inspection report. FGWOOD-NATGASBOILERS was not evaluated for compliance as the effective date of the regulation is January 2016. No testing or sampling were required as part of this compliance inspection and those requirements were removed from this report.

EMISSION UNIT SUMMARY TABLE

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
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Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUWOOD-HIGHVOL	<p>Parts are loaded onto a flat belt and conveyed through the system. Stain and Wipe Stain booths utilize dry filters to control particulate emissions. Washcoat, Tiecoat and Topcoat booths use water wash to control particulate emissions. The High-Volume Flat Line consists of five sections. They are:</p> <ol style="list-style-type: none"> 1. Stain. In this section, coatings are applied using both manual and automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 2. Washcoat. In the Washcoat section, coatings are applied using automatic air assisted airless HVLP applicators. A flash tunnel and oven follow the booth. Coating, flash and cure VOC emissions are exhausted either uncontrolled directly to the outdoor air or, when necessary to meet emission limits, through an RTO control device. 3. Wipe Stain. In this section, coatings are applied with automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 4. Tiecoat. In the Tiecoat section, coatings (known as both tie coats or sealers) are applied using automatic air assisted airless applicators. A flash tunnel and oven follow the booth. Coating, flash and cure VOC emissions are exhausted either uncontrolled directly to the outdoor air or, when necessary to meet emission limits, through an RTO control device. 5. Topcoat. In this section, coatings are applied using automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 	<p>FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH FGWOOD-SEALERS</p>

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUWOOD-LOWVOL	<p>Parts are loaded onto a flat belt and conveyed through the system. Stain and Wipe Stain booths utilize dry filters to control particulate emissions. Washcoat, Tiecoat and Topcoat booths use water wash to control particulate emissions. The Low-Volume Flat Line consists of five sections. They are:</p> <ol style="list-style-type: none"> 1. Stain. In this section, coatings are applied using both manual and automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 2. Washcoat. In the Washcoat section, coatings are applied using automatic air assisted airless HVLP applicators. A flash tunnel and oven follow the booth. Coating, flash and cure VOC emissions are exhausted either uncontrolled directly to the outdoor air or, when necessary to meet emission limits, through an RTO control device. 3. Wipe Stain. In this section, coatings are applied using both manual and automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 4. Tiecoat. In the Tiecoat section, coatings (known as both tie coats or sealers) are applied using automatic air assisted airless applicators. A flash tunnel and oven follow the booth. Coating, flash and cure VOC emissions are exhausted either uncontrolled directly to the outdoor air or, when necessary to meet emission limits, through an RTO control device. 5. Topcoat. In this section, coatings are applied using automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 	FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH FGWOOD-SEALERS
EUWOOD-WORKSURFACE	<p>Four coating booths, associated flash tunnels and UV ovens. Booth 1 and 2 are staining operations with manual HVLP with dry filter system. Booth 3 uses manual HVLP guns to apply coatings with dry filter system. Booth 4 is a Venjakob spray booth with automatic airless HVLP guns to apply sealer/topcoat with dry filter system. An electrically heated infrared follows each booth.</p>	FGWOOD-NESHAPJJ FGWOOD-FINISH FGWOOD-FACILITY FGWOOD-RULE290

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUWOOD-ROLL	<p>The roll coat line is a conveyORIZED series of roll coat applications, curing lamps and sanding operations. This is a method of applying finishing materials to flat surfaces by passing the surface between rollers, one or both of which are coated with the material. The materials utilized convert to 100% solids upon curing. The emissions from the roll coat line are exhausted through stacks.</p>	<p>FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH</p>
EUWOOD-HANG	<p>Parts are loaded onto an overhead conveyor for transport through the system. All booths utilize dry filters to control particulate emissions. The Hang Line consists of five sections. They are:</p> <ol style="list-style-type: none"> 1. Stain. In this section, coatings are applied using both manual and automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 2. Washcoat. In the Washcoat section, coatings are applied using manual HVLP applicators. A flash tunnel and oven follow the booth. Coating, flash and cure VOC emissions are exhausted either uncontrolled directly to the outdoor air or, when necessary to meet emission limits, through an RTO control device. 3. Wipe Stain. In this section, coatings are applied using manual applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 4. Tiecoat. In the Tiecoat section, coatings (known as both tie coats or sealers) are applied using manual HVLP and automatic electrostatic applicators. A flash tunnel and oven follow the booth. Coating, flash and cure VOC emissions are exhausted either uncontrolled directly to the outdoor air or, when necessary to meet emission limits, through an RTO control device. 5. Topcoat. In this section, coatings are applied using both manual and automatic applicators. VOC emissions are exhausted uncontrolled to the outdoor air. 	<p>FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH FGWOOD-SEALERS</p>

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUWOOD-SPECIALS	The specials area consists of two manual dry filter exhaust spray booths and a batch oven. The function of the special area is to repair parts damaged during manufacture or handling, and to provide the facilities for finishing furniture not suited for the other lines. All finish steps requiring heat will use the batch oven. All booths have a dry filter exhaust system to capture particulate. The emissions from the Specials area are exhausted through stacks.	FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH
EUWOOD-OFFLINE	The off-line area consists of two manual spray booths. The emissions from the off-line booths are exhausted through stacks.	FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH
EUWOOD-ADHESIVE	In this operation various veneer species (cherry, walnut, etc.) are inspected for grade, trimmed, and assembled into sheets to adhere to core board that is cut to size. Only the veneer splicing operation is directly vented through the stack.	FGWOOD-NESHAPJJ FGWOOD-FACILITY FGWOOD-FINISH
EUWOOD-RULE287	This group consists of Rule 201 exempt emission units pursuant to Rule 287(c).	FGWOOD-RULE287(c)
EUWOOD-RULE290	This group consists of Rule 201 exempt emission units pursuant to Rule 290.	FGWOOD-RULE290
EUWOOD-WOODWORK	This group consists of woodworking equipment. Control equipment includes seven baghouses DC-1, DC-3, DC-5, DC-7 rated at 61,000 scfm and DC-2, DC-4 and DC-8 rated at 81,000 scfm.	FGWOOD-FACILITY FGWOOD-WOODWORKING FGWOOD-CAMUNITS
EUWOOD-BOILER1	This group consists of a 20.4mm BTU natural gas burning boiler.	FGWOOD-FACILITY FGWOOD-NATGASBOILERS
EUWOOD-BOILER2	This group consists of a 20.4mm BTU natural gas burning boiler.	FGWOOD-FACILITY FGWOOD-NATGASBOILERS
EUWOOD-DIESELGEN	This group consists of an emergency diesel generator.	FGWOOD-FACILITY
EUWOOD-COLDCLEANER	This group consists of miscellaneous cold cleaners installed after 1979 Rule 201 exempt pursuant to Rule 281(h).	FGWOOD-COLDCLEANERS

EUWOOD-DIESELGEN

EMISSION UNIT CONDITIONS

DESCRIPTION

On-site, stationary, diesel-fired internal combustion engine for emergency/backup electric generation specified in 40 CFR Part 63, Subpart ZZZZ ("Reciprocating Internal Combustion Engine {RICE} MACT"). T

unit is classified as an existing emergency stationary RICE with a site rating of more than 500 brake HP a major source of HAP emissions and considered exempt as stated in 40 CFR 63.6590(b)(3)(iii).

The facility purchases Ultra-low sulfur diesel fuel (15 ppm by weight sulfur), which provides for compliance with the permit's sulfur-in-fuel restriction. The MSDS is attached to the complete FCE since the same fuel used at all locations. While this is a named source per 40 CFR 63, Subpart ZZZZ, it would only be subject to further regulation upon modification or reconstruction.

FLEXIBLE GROUP SUMMARY TABLE

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGWOOD-NESHAPJJ	This group consists of any emission units that are subject to the requirements of 40 CFR 63.800, Subpart JJ, Wood Furniture NESHAP.	EUWOOD-HIGHVOL EUWOOD-LOWVOL EUWOOD-ROLL EUWOOD-HANG EUWOOD-SPECIALS EUWOOD-OFFLINE EUWOOD-ADHESIVE EUWOOD-WORKSURFACE EUWOOD-RULE287 EUWOOD-RULE290
FGWOOD-NATGASBOILERS	Existing natural gas (Gas1) Major Source Boiler MACT Requirements per 40 CFR Part 63, Subpart DDDDD. These existing boilers or process heaters must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).	EUWOOD-BOILER1 EUWOOD-BOILER2
FGWOOD-FACILITY	This group consists of natural gas boilers nos. 1 & 2, the two regenerative thermal oxidizers, the air make-up units, all finish ovens, all door heaters, emergency diesel generator and miscellaneous natural gas combustion sources.	EUWOOD-HIGHVOL EUWOOD-LOWVOL EUWOOD-ROLL EUWOOD-HANG EUWOOD-SPECIALS EUWOOD-OFFLINE EUWOOD-ADHESIVE EUWOOD-WOODWORK EUWOOD-BOILER1 EUWOOD-BOILER2 EUWOOD-DIESELGEN EUWOOD-WORKSURFACE EUWOOD-RULE287 EUWOOD-RULE290
FGWOOD-FINISH	This group consists of any emission units that are associated with the production of wooden office furniture.	EUWOOD-HIGHVOL EUWOOD-LOWVOL EUWOOD-ROLL EUWOOD-HANG EUWOOD-SPECIALS EUWOOD-OFFLINE EUWOOD-ADHESIVE EUWOOD-WORKSURFACE EUWOOD-RULE290
FGWOOD-SEALERS	This group consists of the Washcoat and Tiecoat portions of EUWOOD-HIGHVOL, EUWOOD-LOWVOL EUWOOD-HANG.	EUWOOD-HIGHVOL EUWOOD-LOWVOL EUWOOD-HANG
FGWOOD-RULE287(c)	This group consists of Rule 201 exempt emission units pursuant to Rule 287(c).	EUWOOD-RULE287

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGWOOD-RULE290	This group consists of Rule 201 exempt emission units pursuant to Rule 290.	EUWOOD-RULE290 EUWOOD-WORKSURFACE
FGWOOD-WOODWORKING	This group consists of woodworking equipment. Control equipment includes seven baghouses DC-1, DC-3, DC-5, DC-7 rated at 61,000 scfm and DC-2, DC-4 and DC-8 rated at 81,000 scfm. There isn't a DC-6	EUWOOD-WOODWORK
FGWOOD-CAMUNITS	This flexible group consists of emission units that subject to Compliance Assurance Monitoring (CAM).	EUWOOD-WOODWORK
FGWOOD-COLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUWOOD-COLDCLEANER

FGWOOD-NESHAPJJ

FLEXIBLE GROUP CONDITIONS DESCRIPTION

This flexible group consists of all equipment at the stationary source including equipment covered by NSR permits, grandfathered equipment, and exempt equipment involved in surface coating of wooden furniture and that meet the requirements in 40 CFR Part 63, Subpart JJ, 63.8 and are thereby subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Wood Furniture.

Emission Units: EUWOOD-HIGHVOL, EUWOOD-LOWVOL, EUWOOD-ROLL, EUWOOD-HANG, EUWOOD-SPECIALS, EUWOOD-OFFLINE, EUWOOD-ADHESIVE, EUWOOD-WORKSURFACE, EUWOOD-RULE287, EUWOOD-RULE290

EMISSION LIMIT(S)

The permittee shall comply with the limits established in 40 CFR 63.802. The plant uses the compliant coatings option to comply with the regulation and based on attached electronic records the coatings used are less than 0.021 pounds VHAP/pound of solids and the limit is 0.1 pounds VHAP/pound of solids.

PROCESS/OPERATIONAL RESTRICTION(S)

All emission units subject to 40 CFR 63.803 Subpart JJ shall comply with the Work Practice Standards noted in 40 CFR 63.803. They use the compliant coating option and the semi-annual compliance certifications are being submitted as required. Training is being conducted and is completed in December. The facility is in compliance with the Work Practice Standards, Monitoring and Recordkeeping (see attached electronic records).

FGWOOD-FACILITY

FLEXIBLE GROUP CONDITIONS DESCRIPTION

This group consists of one emergency diesel generator and natural gas combustion sources including two 20.4 mm BTU burning boilers, the two regenerative thermal oxidizers, the air make-up units, all finish ovens, all door heaters, and miscellaneous natural gas combustion sources.

Emission Units: EUWOOD-HIGHVOL, EUWOOD-LOWVOL, EUWOOD-ROLL, EUWOOD-HANG, EUWOOD-SPECIALS, EUWOOD-OFFLINE, EUWOOD-ADHESIVE, EUWOOD-WOODWORK, EUWOOD-BOILER1, EUWOOD-BOILER2, EUWOOD-DIESELGEN, EUWOOD-WORKSURFACE, EUWOOD-RULE287, EUWOOD-RULE290

EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	COMPLIANCE
1. NOx	15.0 tons per year	based upon a 12-month rolling time period as determined at the end of each calendar month	Boiler 1, Boiler 2, the regenerative thermal oxidizers, the air make-up units, all door heaters and all finish ovens	6.25 tons per calendar year January 2015
2. Particulate	0.48 pound per hour	based upon a 24 -hour rolling time period as determined at the end of each calendar day	all natural gas combustion sources	0.478 pound per hour
3. Particulate	1.14 tons per calendar year	NA	all natural gas combustion sources	0.21 tons per calendar year, the highest month was June 2015
4. Particulate	1.04 pounds per hour	based upon a 24 -hour rolling time period as determined at the end of each calendar day	the diesel generator	1.04 pound per hour
5. Particulate	0.1 ton per calendar year	NA	the diesel generator	0.002 tons per calendar year, the highest months were May and June 2015

MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	
1. Natural gas	2.2 million cubic feet per calendar day.	Based on the average daily use for each calendar month determined at the end of each calendar month	Boiler 1, Boiler 2, the regenerative thermal oxidizers, the air make-up units, all door heaters and all finish ovens	Less than 2.2 million cubic feet per day based on the million cubic feet per year
2. Natural Gas	300 million cubic feet per year	Based on a rolling time period of 12 consecutive calendar months as determined at the end of each calendar month	Boiler 1, Boiler 2, the regenerative thermal oxidizers, the air make-up units, all door heaters and all finish ovens	118.98 million cubic feet per year
3. Diesel Fuel	4706 gallons per year.	NA	diesel generator	18.7 gallons as of June 2015

MONITORING/RECORDKEEPING

Records are being maintained as required, see attached electronic records.

FGWOOD-FINISH

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This group consists of any emission units that are associated with the coating of wood office furniture.

Emission Units: EUWOOD-HIGHVOL, EUWOOD-LOWVOL, EUWOOD-ROLL, EUWOOD-HANG, EUWOOD-SPECIALS, EUWOOD-OFFLINE, EUWOOD-ADHESIVE,EUWOOD-WORKSURFACE, EUWOOD-RULE290

EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	COMPLIANCE
1. VOC	50.0 tons per year	based upon a 12-month rolling time period as determined at the end of each calendar month	Compliance with this limit shall be based on the coating emissions from FGWOOD-SEALERS combined with those from flush solvent usage for all of FGWOOD-FINISH	1.95 tons per year in both May and June
2. VOC	3014.7 pounds per day	based upon a 12-month rolling time period as determined at the end of each calendar month	FGWOOD-FINISH	280.53 highest day was in January 2015
3. VOC	130.0 tons per year	based upon a 12-month rolling time period as determined at the end of each calendar month	FGWOOD-FINISH	15.4 tons per year
4. VOC	16.0 tons per year	based upon a 12-month rolling time period as determined at the end of each calendar month	each uncontrolled spray booth, which contain automatic spray finishing equipment	Less than 16 tons per year based on facility-wide VOC limit
5. Acetone	801.1 pounds per calendar day	NA	FGWOOD-FINISH	52.3 highest day was in June
6. Acetone	55.0 tons per year	based upon a 12-month rolling time period as determined at the end of each calendar month	FGWOOD-FINISH	6.7 tons per year
7. Formaldehyde	240 pounds per year	based upon a 12-month rolling time period as determined at the end of each calendar month	EUWOOD-ADHESIVE	34.4 pounds per year ¹ the highest month was January 2015

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	COMPLIANCE
8. Formaldehyde	389.5 pounds per year	based upon a 12-month rolling time period as determined at the end of each calendar month	EUWOOD-HIGHVOL EUWOOD-LOWVOL and EUWOOD-HANG	0 pounds per year
9. Formaldehyde	60 pounds per year	based upon a 12-month rolling time period as determined at the end of each calendar month	EUWOOD-SPECIALS	0 pounds per year
10. Particulate	The particulate emissions shall not exceed the values listed in Table I.4.1 ²			

Table I.4.1

Stack ID	Lbs/1000 lbs of exhaust gases		Lbs/hour		Tons/ calendar year	
SVHI-AUTOSTAIN-01	0.0018	0.0004	0.069	0.013	0.248	0.0079
SVHI-MANSTAIN1-3A	0.0018	0.0004	0.069	0.013	0.248	0.0081
SVHI-MANSTAIN2-3B	0.0018	0.0004	0.069	0.013	0.248	0.0081
SVHI-AUTOWIPE-07	0.0018	0.0004	0.069	0.013	0.248	0.0001
SVHI-AUTO2K-12	0.003	0.0018	0.176	0.105	0.632	0.0617
SVLO-AUTOSTAIN-14	0.0018	0.0004	0.069	0.013	0.248	0.0079
SVLO-MANSTAIN1-15A	0.0018	0.0004	0.069	0.013	0.248	0.0001
SVLO-MANSTAIN2-15B	0.0018	0.0004	0.069	0.013	0.248	0.0001
SVLO-MANSTAIN3-17A	0.0018	0.0004	0.069	0.013	0.248	0.0082
SVLO-MANSTAIN4-17B	0.0018	0.0004	0.069	0.013	0.248	0.0082
SVLO-AUTOWIPE-21	0.0018	0.0004	0.069	0.013	0.248	0.0
SVLO-MANWIPE-22	0.0018	0.0004	0.069	0.013	0.248	0.0
SVLO-AUTO2K-27	0.003	0.0018	0.176	0.086	0.632	0.0471
SVHANG-MAN1 A-40	0.0018	0.0004	0.122	0.024	0.437	0.0
SVHANG-MAN1 B-41	0.0018	0.0004	0.122	0.024	0.437	0.0121
SVHANG-MAN2-43A	0.0018	0.0004	0.122	0.024	0.437	0.0118
SVHANG-MAN3-43B	0.0018	0.0004	0.122	0.024	0.437	0.0013
SVHANG-MANTOP-52	0.002	0.00127	0.162	0.095	0.658	0.0

Stack ID	Lbs/1000 lbs of exhaust gases		Lbs/hour		Tons/ calendar year	
SVHANG-AUTOTOP-53	0.002	0.00127	0.096	0.023	0.347	0.0014
SVSP-MAN1-56A	0.0018	0.00045	0.107	0.027	0.385	0.0043
SVSP-MAN2-56B	0.0018	0.00045	0.107	0.027	0.385	0.0134
SVSP-2KTOP-57	0.002	0.00127	0.119	0.075	0.428	0.0052
SVSPLYSET-92	0.004	0.004	0.086	0.086	0.378	0.0801

MATERIAL LIMIT(S)

The following limits are being addressed in Appendix 2-6 Schedule of Compliance since the company cannot meet the VOC minus water limit. The company is in the process of submitting PTI application to address this issue and the details are in the compliance plan. See Appendix 2-6 attached to the end of this report for the detailed compliance plan. The company has been submitting compliance reports as required by the compliance plan.

Material	Limit	COMPLIANCE
Solvent-Based Stains	6.95 Pounds VOC per Gallon (minus water) as Applied	No solvent based stains are being used. PTI application will propose to delete this limit.
Water-Based Stains	2.80 Pounds VOC per Gallon (minus water) as Applied	All coatings are water based, PTI application will propose to delete this limit.
Washcoat and Tiecoat/ Sealers	5.90 Pounds VOC per Gallon (minus water) as Applied	PTI application will propose Washcoat and Tiecoat/Sealers at 5.8 lbs VOC /gal minus water A reduction in allowable VOC emissions.
Topcoats	1.30 Pounds VOC per Gallon (minus water) as Applied	Based on attached electronic CPDS's the highest value is 1.25 and the lowest is 0.27 Pounds VOC per Gallon (minus water) as Applied
UV Topcoats	4.55 Pounds VOC per Gallon (minus water) as Applied	PTI application will propose to delete this limit since UV topcoats meet the Topcoat requirement of 1.3 lbs VOC/gal minus water.
Wipe Stains	4.90 Pounds VOC per Gallon (minus water) as Applied	Wipe and spray stains interchangeable so the distinction is not relevant, PTI application will propose to remove the word "wipe". Apply to lower the VOC limit to 4.5.
Adhesives	0.55 Pounds VOC per Gallon (minus water) as Applied	Based on attached electronic CPDS's the highest value is 0.074 Pounds VOC per Gallon (minus water) as Applied

PROCESS/OPERATIONAL RESTRICTION(S)

All waste VOC containing materials including, finishing materials, thinners, contact adhesives, strippable spray booth coatings, waterwash additives, purge and cleanup solvents shall be captured and stored in normally closed containers and disposed of in an acceptable manner in compliance with all applicable rules and federal regulations. It appears all waste materials are being handled appropriately.

Control equipment was in place and appeared to be operating properly.

DESIGN/EQUIPMENT PARAMETER(S)

The permittee shall equip and maintain each of the spray booths with the applicators listed in Appendix 6-9 or with comparable technology having equivalent transfer efficiency. It appears that all appropriate applicators are being used on the appropriate lines.

MONITORING/RECORDKEEPING

Records were available electronically on site and are being maintained as required. Summary spreadsheets are attached electronically to this report.

**FGWOOD-SEALERS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

This group consists of the Washcoat and Tiecoat portions of EUWOOD-HIGHVOL, EUWOOD-LOWVOL, EUWOOD-HANG. However, washcoat booths on the HV and LV lines are not being used.

Emission Units: EUWOOD-HIGHVOL, EUWOOD-LOWVOL, EUWOOD-HANG

EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	COMPLIANCE
VOC	50.0 tons per year	based upon a 12-month rolling time period as determined at the end of each calendar month	Compliance with this limit shall be based on the coating emissions from FGWOOD-SEALERS combined with those from flush solvent usage for all of FGWOOD-FINISH	1.95 tons per year reported in both May and June 2015
VOC	1.34 pounds per gallon minus water	based upon a monthly time period	Washcoats, tiecoats and sealers	Part of the compliance plan. PTI application change this to 2.64 lbs VOC/gal minus water to match Washcoat and Tiecoat/Sealers limits.
Particulate	0.00975 lbs	per 1000 lbs of exhaust gas	SVHI-WSHCT SVHI-SLR SVLO-WSHCT SVLO-SLR SVHANG-WSHCT	SVHI-SLR and SVLO-SLR 0.0018 per 1000 lbs of exhaust gas washcoat booths on the HV and LV lines are not used
Particulate	0.46 lbs	per hour	SVHI-WSHCT SVHI-SLR SVLO-WSHCT SVLO-SLR	SVHI-SLR 0.048 lbs/hour SVLO-SLR 0.0656 lbs/hour washcoat booths on the HV and LV lines are not used
Particulate	0.73 lbs	per hour	SVHANG-WSHCT	0.0170 lbs/hour

PROCESS/OPERATIONAL RESTRICTION(S)

All waste VOC containing materials including, finishing materials, thinners, contact adhesives, strippable spray booth coatings, waterwash additives, purge and cleanup solvents shall be captured and stored in normally closed containers and disposed of in an acceptable manner in

compliance with all applicable rules and federal regulations. It appears all waste is being handled appropriately.

DESIGN/EQUIPMENT PARAMETER(S)

The permittee shall equip and maintain each of the spray booths with the applicators listed in Appendix 9-6 or with comparable technology having equivalent transfer efficiency. It appears appropriate applicators are being used.

FGWOOD-RULE287(c)

FLEXIBLE GROUP CONDITIONS

DESCRIPTION Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).

Currently there aren't any emission units using a Rule 287 exemption from Rule 201.

FGWOOD-RULE290

FLEXIBLE GROUP CONDITIONS

DESCRIPTION Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Units: EUWOOD-RULE290 including the following:

EMISSION UNIT	HIGHEST MONTH IN POUNDS
CF	55 pounds in June 2015
Melamine	0.06 pounds in June 2015
UV Specials	34 pounds in June 2015
Off-line Specials Overflow	0.0
Off-line Vendor	0.0
EUWOOD-WORKSURFACE	2980.0 pounds in May 2015

All emission units using a Rule 290 exemption from Rule 201 are in compliance.

FGWOOD-WOODWORKING

FLEXIBLE GROUP CONDITIONS

DESCRIPTION This group consists of woodworking equipment.

Emission Unit: EUWOOD-WOODWORK

POLLUTION CONTROL EQUIPMENT Seven Baghouses

EMISSION LIMIT(S)

Pollutant	Limit	Equipment	COMPLIANCE
Particulate (PM)	1.92 tons/calendar year	Baghouses 1, 3, 5 and 7 combined	0.1275 tons/year
PM	0.137 pounds/hour	Baghouses 1, 3, 5 and 7 (each individual)	0.055 pounds/hour

Pollutant	Limit	Equipment	COMPLIANCE
PM	1.91 tons/calendar year	Baghouses 2, 4 and 8, combined	0.1695 tons/year
PM	0.182 pounds/hour	Baghouses 2, 4 and 8, (each individual)	0.073 pounds/hour
PM	0.0005 lb/1000 lbs of exhaust gases	Baghouses 1,2,3,4,5,7 and 8 (each individual)	0.0002 lb/1000 lbs of exhaust gases based on stack test

PROCESS/OPERATIONAL RESTRICTION(S)

The permittee shall not operate any of the woodworking processes while directing the exhaust stream from the woodworking baghouse control system to the outdoor air for more than 28,000 hours per year combined for baghouses 1, 3, 5, and 7, and 21,000 hours combined for baghouses 2, 4, and 8 based upon a 12-month rolling time period. The remainder of the year the exhaust air from the woodworking baghouse collectors will be recirculated to the plant building.² Highest month was January 2015 at 14822.4.

FGWOOD-CAMUNITS FLEXIBLE GROUP CONDITIONS

This flexible group consists of emission units that are subject to CAM for particulate matter which include all remaining six baghouses.

The permittee shall maintain the pressure drop monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the pressure drop monitoring equipment. The pressure drop across the baghouse is being measured with a differential pressure gauge. Monitoring and recordkeeping equipment was evaluated during the inspection. Records are being maintained as required. See attached summary records on data CD.

REPORTING

All reporting is being submitted as required. See ROP and CAM compliance certifications in MACES.

FGWOOD-NESHAPIII FLEXIBLE GROUP CONDITIONS

Various flexible foam stations subject to 40 CFR 63 subpart III.

There is one area where two part flexible foam is injected into gray bags used for packaging. There is no mold release being used and the units are in compliance by submitting the initial notification form. All reporting is being submitted as required. See ROP, CAM and NESHAP compliance certifications in MACES.

FGWOOD-COLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281 (h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: EUWOOD-COLDCLEANER

The have two cold cleaners at are considered new since they were installed after 1979. All degreasers / cold cleaners are Rule 201 exempt by Rule 281(h) are less than 10 square feet surface area.

Based on the physical inspection of the plant, a complete and thorough records review and compliance with the ROP compliance plan, this facility appears to be in compliance with ROP No. MI-ROP-N0677-2015 and state and federal air quality rules and regulations.

Appendix 2-6. Schedule of Compliance

The permittee outlined the details of achieving compliance in a narrative compliance plan. The details of compliance plan are outlined below.

Schedule of Compliance

The following schedule of compliance conforms with the provisions of Rule 119(a) and Rule 213(4).

Emission Unit/ Flexible Group ID and Condition No.	Applicable Requirement	Remedial Measure	Required Action
FGWOOD-FINISH II. MATERIAL LIMIT(S) 1. Solvent Based Stains	Solvent Based Stains at 6.95 lbs VOC /gal minus water	No solvent based stains are being used.	PTI application propose to delete this limit.
FGWOOD-FINISH II. MATERIAL LIMIT(S) 2.. Water-Based Stains	Water Based Stains at 2.8 lbs VOC/gal minus water	All coatings are water based	PTI application delete this limit.
FGWOOD-FINISH II. MATERIAL LIMIT(S) 3. Washcoat and Tiecoat/ Sealers	Washcoat and Tiecoat/Sealers at 5.8 lbs VOC /gal minus water	A reduction in allowable VOC emissions.	PTI application reduce this to 2.64 lbs VOC/gal minus water
FGWOOD-FINISH II. MATERIAL LIMIT(S) 5. UV Topcoats	UV Topcoats at 4.55 lbs VOC/gal.	UV topcoats meet the Topcoat requirement of 1.3 lbs VOC/gal minus water.	PTI application delete this limit.
FGWOOD-FINISH II. MATERIAL LIMIT(S) 6. Wipe Stains	Wipe Stains at 4.9 lbs VOC/gal minus water		PTI application remove the word “Wipe” so that it includes both wipe and spray stains.
FGWOOD-FINISH II. MATERIAL LIMIT(S)	Wipe Stains at 4.9 lbs VOC/gal minus water	This is still an increase from the 2.8 lbs VOC/gal minus water limit, but this does not result in a change in VOC emissions. The difference is in the calculated VOC content vs. the as emitted VOC content.	PTI application lower the VOC limit to 4.5 lbs VOC/gal minus water

Emission Unit/ Flexible Group ID and Condition No.	Applicable Requirement	Remedial Measure	Required Action
FGWOOD- SEALERS I. EMISSION LIMIT 2. VOC	Sealers at 1.34 lbs VOC/gal minus water		PTI application change this to 2.64 lbs VOC/gal minus water to match Washcoat and Tiecoat/Sealers limits.

NAME Denise Dakan

DATE 9.29.15

SUPERVISOR PAD