

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

B407230233

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| FACILITY: Rock-Tenn Co | | SRN / ID: B4072 |
| LOCATION: 177 Angell St., BATTLE CREEK | | DISTRICT: Kalamazoo |
| CITY: BATTLE CREEK | | COUNTY: CALHOUN |
| CONTACT: Paula Batey-VanDorsten, Safety/Environmental Manager | | ACTIVITY DATE: 06/16/2015 |
| STAFF: Rex Lane | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MAJOR |
| SUBJECT: Self Initiated Inspection | | |
| RESOLVED COMPLAINTS: | | |

Facility Background:

RockTenn (hereafter "facility") is a 100% recycled paperboard plant located at 177 Angell Street, Battle Creek, Michigan. The facility does not have paperboard converting or printing process operations at this location. The facility is permitted as a synthetic minor source for individual and combined hazardous air pollutants (HAPs) and is a major source based on potential to emit for sulfur oxides, nitrogen oxides and volatile organic compounds and is permitted under ROP Permit MI-ROP-B4072-2014. The facility's potential to emit for greenhouse gases exceeds 100,000 tons CO₂e/year and 100 tons/year on a mass basis. The powerhouse boilers are subject to 40 CFR Part 63, Subpart JJJJJJ (i.e. area source boiler MACT) and the diesel fire pump is subject to 40 CFR Part 60, Subpart IIII (i.e. compression ignition NSPS). The last air quality inspection of the facility occurred on October 11, 2012 and was a joint state (Air Quality Division (AQD)) and federal (USEPA Region V) inspection and was considered to be in compliance with state and federal air regulations at that time.

Inspection:

On June 16, 2015, AQD staff (Rex Lane and Monica Brothers) arrived at the facility at 9 am to conduct an unannounced air quality inspection. Staff went to the guardhouse and provided security personnel with their business card, stated the purpose of their visit, and requested that they contact Ms. Paula Batey-VanDorsten, Safety/Environmental Manager. Security personnel directed staff to the brick office building on the east end of the parking lot and indicated that Ms. Batey-VanDorsten would meet staff there.

Staff greeted Ms. Batey-VanDorsten and presented their ID credentials and notified her that they would like to conduct an unannounced air quality inspection of the facility and staff was escorted to a conference room. Staff provided her with a copy of the MDEQ's Environmental Inspections brochure and a business card. Ms. Batey-VanDorsten then brought in Mr. Tom Crockett, General Manager and Mr. Gary Drouin, Plant Engineer for the pre-inspection meeting discussion. The boilers are subject to a biennial tune-up requirement and a one-time energy assessment requirement that was required to be completed not later than March 21, 2014. Staff asked and Mr. Drouin indicated that both items had been completed. Staff requested copies of this documentation for the office files and this information was provided during the post-inspection meeting. Staff also asked if the facility has installed any emergency generators and none have been installed on a permanent basis. Three portable generators are being brought in for their annual planned shutdown that is scheduled for the week of June 21st. Staff also asked if the facility had fired yellow grease or No. 6 fuel oil in their boilers since the last AQD inspection. Mr. Drouin indicated that they fired some # 6 fuel oil during the winter of 2013/2014 but that they have never utilized yellow grease in the boilers. Staff asked about the paper production rate for the morning and Mr. Crockett indicated that they were running 22 point paper at a line speed near 1000 fpm. The facility has added a safety vest to the list of required PPE in the plant and these were provided to staff prior to the inspection.

Ms. Batey-VanDorsten showed staff a display case of the type of consumer packaging paper products that are produced using the paperboard from their mill and then gave staff a tour of the facility. Information provided below is based on observations and discussions during the inspection and records requested and provided during and following the inspection:

EU-FIRE-PUMP-ENGINE:

Staff requested and the facility provided a copy of the certificate of conformity for the 110 HP John Deere diesel fired emergency fire pump engine which demonstrates that the unit meets the emission limits for NMHC+NOX, CO and PM under Conditions I.1 through I.3. Because the facility is using a certified engine, the emission testing requirement under Condition V.1 is not applicable at this time. The unit is readiness tested once per week for approximately 20 minutes in duration and also undergoes an annual pump flow test. The unit is equipped with a non-resettable hour meter and the current reading is 82.4 hours. The facility maintains a log of engine operation that is kept in the fire pump house building. The unit is limited to firing diesel fuel with a sulfur content not to exceed 15 ppm. Staff requested and was provided with a 11/13/14 lab sample analysis of the diesel fuel. The analytical results indicated that the total sulfur content was 0.0074% which is equivalent to 74 ppm. Staff notified the facility that the sample result exceeds the material limit in Condition II.1. Ms. Batey-VanDorsten left staff a voice mail message on 6/23/15 that the diesel fuel was being switched out on 6/24/15 and a new sample will be sent to KAR Laboratories for analysis and demonstration of compliance with the 15 ppm total sulfur limit. A sample of the new diesel fire pump oil delivery was collected on 6/29/15 and lab results were emailed to staff on 7/14/15 indicate that the total sulfur content is less than 15 ppm.

EU-COATING:

Following the dryer section of the paper machine, the paperboard is coated with a latex adhesive that helps and binds the subsequent and final white coatings. The coatings are applied with application rollers in a coating reservoir and excess coating is removed with a doctor blade or air knife system. The coatings are dried using infra-red gas fired ovens and a starch is applied to the back side (brown) of the paperboard to prevent curling. Kaolin usage in the paper coating process has a separate exhaust system for particulate that vents to a large concrete silo which serves as a settling chamber with a small gooseneck down stack located at the top of the silo. Staff reviewed emission calculations following the inspection and the facility is maintaining the required recordkeeping and is in compliance with the 6.9 tons per 12-month rolling time period VOC emission limit. The highest emission rate noted for the period of record (May 2014 – April 2015) reviewed was 5.24 tons VOC in April 2015. Staff requested and reviewed the records for weekly visible emission checks of the silo stack during daylight hours. No visible emissions were noted during the inspection and the records generally indicated no visible emissions other than water vapor only being observed on occasion.

EU-REW-0001:

A rewind machine that performs the winding of final products on to rolls for shipment located in Building 23. The facility is required to perform and record the results of weekly visible emission checks during daylight hours while in operation. Staff reviewed the log book and no visible emissions were noted during the period of record reviewed by staff.

FG-COLD CLEANERS:

The facility has a small parts washer in their maintenance area. The facility continues to use a product called Ozzy Juice SW-3 that was evaluated during the 2012 inspection. The product specification data indicates that it contains 0 grams VOC/liter, therefore the parts washer is not currently subject to the Part 7 rules and as such, staff did not evaluate compliance with flexible group conditions that list a Part 7 rule as the underlying applicable requirement. If the facility switches to a different cleaning product that contains VOC, the Part 7 rules and associated flexible group conditions will apply again.

FG-BOILERS:

The facility has two natural gas fired boilers that are each rated at 107 MMBtu/hour and 63,000 lbs. steam/hour. The boilers are also capable of firing No. 2 or No. 6 fuel oil and yellow grease. The facility has never fired yellow grease since being permitted for this fuel. The facility recently used up the remaining No. 6 fuel oil (November 2014) in the above ground storage tank and is converting it to also store No. 2 fuel oil. The two 35,000 gallon above ground fuel oil storage tanks are double walled tanks with interstitial leak monitoring per Mr. Gary Drouin and they also have a concrete secondary containment structures. The tanks are exempt from 40 CFR Part 60, Subpart Kb under 40 CFR 60.110(b) (b) and are exempt from air use permitting requirements under Rule 284(d). At the time of the inspection, both boilers were running on natural gas at 44,000 lbs. steam/hour and 43,000 lbs. steam/hour respectively. No visible emissions were observed from the boiler stacks. Emission and material limits and testing requirements associated with yellow grease were not evaluated during this inspection since this fuel type has not yet been burned in these boilers. The facility recently removed

one of two Elliot backpressure steam turbines and the remaining Elliot turbine # 2 (nominal capacity 1.2 MW) is down for rewinding of the generator. Staff reviewed recordkeeping associated with natural gas and fuel oil usage and associated combustion emissions for May 2014 through April 2015. Under SC II.1, the fuel oil content cannot exceed 1.5% sulfur by weight (15,000 ppm). Ms. Batey VanDorsten provided fuel purchase delivery records for 2014 which indicates that the facility is purchasing ultralow sulfur diesel fuel oil that has a maximum total sulfur content of 15 ppm or 0.1% of the allowable limit.

Staff obtained copies of the biennial boiler tune-up that was last completed on 3/20/14 and the one-time energy assessment report that was completed in February 2014 as required by 40 CFR Part 63, Subpart JJJJJJ (area source boiler MACT). These requirements were completed prior to the respective deadlines under the boiler MACT and these records will be placed in the district's MACT folder for the facility. The boiler tune-up was performed by Advanced Boiler Control Services Inc. in Kalamazoo, MI and the one-time energy assessment was done by Sterling Energy Services in Atlanta, Georgia.

Staff reviewed the daily visible emission check records for the two time periods where the boilers recently fired fuel oil. The records indicate that the visible emissions averaged five percent opacity during boiler operation on fuel oil. Per Ms. Batey-VanDorsten, the facility has two or three personnel that maintain USEPA Method 9 certification on a semi-annual basis.

FG-PAPERMAKING:

This flexible group covers boxboard production including pulping and the wet end process on the paper machine including felt wash. The facility has three hydro pulpers; two pulp mixed papers and the third one pulps white paper only to reduce the amount of coating that needs to be applied to the top side of the boxboard paper. At the time of the inspection, the paper machine was operating at approximately 850 fpm and producing 22 point paper. Staff reviewed material and pulping, wet end and felt wash chemical usage records and emission records based on National Council of Air and Stream Improvement (NCASI) derived emission factors from a similar mill for the May 2014 through April 2015 time period. The highest VOC 12-month rolling time period for pulping and wet end portion of FG-PAPERMAKING during period review was December 2014 (20.6 tons VOC/year; limit – 30.0 tpy) and for the felt wash portion of FG-PAPERMAKING was January 2014 (0.16 tons VOC/year; limit – 0.7 tpy). The maximum allowed paper production rate allowed is 219,000 tons/year on a 12-month rolling time period and highest value during the records review period observed was 152,477 tons/year in April 2015 which is approximately 70% of allowable production limit. Stack vent dimensions for FG-PAPERMAKING were not evaluated during this inspection.

FG-FACILITY:

This flexible group covers all process equipment at facility source-wide including equipment covered by other permits, grandfathered and exempt equipment. FG-FACILITY limits individual and combined Hazardous Air Pollutants (HAPs) to less than 9.0 tons/year for individual HAP and less than 22.5 tons/year for aggregate HAPs on a 12-month rolling time period respectively. The highest individual and combined HAP for period of records reviewed occurred in January 2014 (4.0 tons/year and 14.2 tons/year).

Staff left the facility at 1:30 pm and thanked Ms. Paula Batey-VanDorsten for her time.

Summary:

At the time of the inspection and based on a review of required records and records provided following the inspection, the facility appears to be in compliance with the terms and conditions of MI-ROP-B4072-2014 and all applicable state and federal air regulations. -RIL

NAME RIL

DATE 7/16/15

SUPERVISOR 7/16 7/17/2015