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

M236928907

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| FACILITY: CUMMINGS MOORE GRAPHITE CO | | SRN / ID: M2369 |
| LOCATION: 1646 GREEN N, DETROIT | | DISTRICT: Detroit |
| CITY: DETROIT | | COUNTY: WAYNE |
| CONTACT: Kenneth Newton , Plant Manager | | ACTIVITY DATE: 02/26/2015 |
| STAFF: Terseer Hemben | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MINOR |
| SUBJECT: Graphite repacking process: Vibroscreen and Ball Mill | | |
| RESOLVED COMPLAINTS: | | |

CUMMINGS-MOORE GRAPHITE Company (CMGC)

(A Division of Asbury Carbons} 1646 N. Green Street, Detroit, MI

48209

SRN: M2369; SIC 3295; Source Class: SM

Date: 2/26/2015. Contact phone: 313-841-1615; Fax: 313-841-4880

Personnel Present: Mr. Terseer Hemben AQD

Mr. Kenneth Newton CMGC Plant Manager

Précis: The inspection and evaluation of compliance with environmental regulations for the facility operations was based on:

Wayne County PERMITS # C-2949, C-7199 through C-7201, C-10653-C10654 conditions;

PTI Permit No. 51-06 enforcing regulatory rules-.

Federal Rule – 40 CFR 52.21;

State Rule- R201, R278 through R290 considered; R901, R910, Section 5510 of Act 451, PA 1994, R219, R912, R301, R370, R2001

Background:**The Cumming-Moore Grap**

hite Company was founded in 1916 by Messrs John Cummings and William Moore. The company's main business is screening and pulverizing Mexican graphite with the capability of grinding graphite to particle sizes from 50 minus 100 meshes, on the coarse side, to 99.5 minus 325 meshes (40 Micron) and any fraction in between. The company is currently a member of the Asbury Carbons, a graphite processing and marketing group of companies.

Process Description:

The CMGC was established to crush and pulverize raw graphite ore. Graphite ore was received by rail car and shipped via truck transport. The raw ore was stored in two (2) silos, which utilized a bag house for dust control. The ore was pulverized by three (3) roller mills that vented to the internal (fabric collector) bag house. Pulverized ore was stored in bulk bins from which trucks were loaded for shipment. The bulk loading bins had a bag house which was vented internally. Additionally, various screening and raw material handling operations on the facility utilized bag house collectors for dust control.

Currently, the facility stopped receiving and crushing coarse Graphite Ore. Since 2007, the Company sought operational alternatives for reduction of fugitive dust occurrence associated with Graphite processing. According to Mr. Newton, CMGC receives bulk crushed Graphite by rail and packets the

product for market distribution. The process equipment, such as the Ball Mill, grinds the pre-crushed ore and feeds to various size screens for grain separation. About 4 – 5 grain sizes are obtained from crushed ores at the North Green Street facility.

EQUIPMENT AND CONTROLS

CMGC plant maintenance consists of weekly inspections of the conveyors and elevator housing for signs of wear, equipment tear and leakage. The plant lot is now wall-fenced. The enclosed building eliminated chances of fugitive dust occurrence. Typically, the inside of the plant is covered with graphite soot. The floors, roofs and ceilings are covered with black soot. The overview of the plant including equipment inventory is on file. There are no vents or direct openings into the production area from the outside.

Inspection Narrative:

I arrived at the facility address on February 26, 2015 at 1025 hours. The purpose of visit was to conduct compliance inspections on the company's graphite processing operation. Temperature at the hour was 12 F with wind speed 8 mph coming from the NNE, and humidity 70%. I was accepted at the office by the Manager, Kenneth Newton. We went through the pre-inspection conference. Mr. Newton informed there had not been any equipment modification at the facility. However, the facility was building a larger warehouse for storage of finished products. We toured the facility while I observed the operation and special organization of the workshop floor for emission reduction compliance.

I inspected the loading Car Hopper, Ball Mill, screening systems, vibroscreen, baghouses, the roof/skylights and side doors. I examined the impact of neighboring properties outside the facility operational limits. Mr. Newton and I concurred there were no fall out particulates on the neighboring properties outside the facility's operational property boundaries. We returned the Company's office for a post-inspection conference. I informed the manager that AQD did not find indications of fugitive dust outside the facility wall, especially on the pavement and walkways. I looked at the file cabinet for recordkeeping. The facility kept most records manually. CMGC requested time extension for providing emission records in an organized format covering the last 24 months. After giving a feedback to the manager regarding my visit, I gave a DEQ inspection survey brochure for the Company's own feedback. I left the area at 1140 hours.

PERMIT CONDITIONS

There are Three (3) sets of permit Conditions for the CMGC facility. The first set is Wayne County permits # C-7199 through C-7202 that was approved in 1987. These permits cover the fabric filter collectors. The second set of permit Nos. is the C-10653 – C-10654. These documents were approved in 1995 and covered the installation of vibroscreen and baghouse dust collector. The third and latest permit is AQD (PTI) permit no. 51-06. The permits addressed Federal rule (40 CFR 52) and State rules. Details of the permits are on AQD file.

EMISSION CALCULATIONS:

Emission calculations for the CMGC facility located at North Green Street were based on discharging all products inside the building as recycle streams and submitted at the time of PTI applications.

OUTSTANDING CONSENT ORDERS:

The State of Michigan issued a consent order in 1993 on particulate matter emissions requiring improvement on Fugitive Dust control Plan (information on file). The plan was submitted accordingly.

NUMBER OF VIOLATIONS:

There is a record of Two (2) violations against the CMGC since 1994 (Information on file). Latest one occurred in 2005. The records were resolved. There are no standing violations.

COMPLAINT HISTORY

The last record of complaint made against CMGC was in 1996 (Information on file). The complaint was resolved. Other complaints received from neighboring residents were investigated. However, there was

no violation notices issued because there were no air pollution violations identified with the facility operations.

COMPLIANCE DETERMINATION

Based on the Permits No C-7199 through C-7201 & C-10653-C10654, and Permit To Install no. 51-06, the determination of compliance was based on demonstrating the following special conditions (SC). The CMGC operated:

1. In compliance – CMGC demonstrated there was no modification to any system, and/ or process at the above referenced facility since permitted in 2006. The Manager, Mr. Newton stated there was no modification to the plant equipment or process.
2. In compliance – CMGC demonstrated particulate matter emissions from the screen and vibroscreen; controlled by the baghouse dust collector did not exceeded 0.006 grains per dry standard cubic foot of exhaust air, 0.015 pounds per hour nor 0.11 tons per year (SC. 17). Records from CMGC relating to dust collecting baghouses enforcing the particulate dimensions control indicated regular maintenance, and ensured compliance based on equipment specifications for control efficiency [Cost invoices are located in Attachment B].
3. In compliance – CMGC demonstrated the Screen and vibroscreen have been properly operated with the baghouse dust collector correctly installed as required (SC. 18). . Records of maintenance from CMGC for the last 24 months indicated compliance. Response was same as in Question# 2 [Attachment B].
4. In compliance - CMGC demonstrated the screen and vibroscreen were not operated for more than 1,500 hours per year (SC. 19). Records from CMGC indicated the screens were not operated in any of the processes. The manager stated the facility was used solely as a repack hub. Packing operations indicated the maximum run of the equipment was 7 hours in a year [Attachment C].
5. In compliance - CMGC demonstrated that disposal of collected air contaminants from baghouse dust collector was performed in a manner which prevented the introduction of air contaminants to the outdoor air. (S.C 20). Records from CMGC relating to dust collecting bags enforcing the particulate size separation indicated frequent maintenance of the equipment ensuring compliance. The management of contaminants was contracted to Delray Mechanical Corporation for disposal [Cost invoices in Attachment B].
6. In compliance – CMGC demonstrated the exhaust air from the baghouse dust collector was discharged inside the facility and not to the outdoor air (SC. 21). Visual inspection confirmed there were no vents or openings letting direct air exchange with the building.
7. In compliance – CMGC demonstrated the visible emissions to the outdoor air from the equipment did not exceed 0% opacity (SC. 22).CGMC stated the facility observed for visible emissions during production and had not witnessed exceedances over 0% opacity. The equipment vent to the inside plant environment and through the baghouse to the ambient air. The proper maintenance and operation of baghouses reduced visible emissions. Documentation of visible observation outcome was not a recordkeeping requirement in the permits so the facility kept no records of VE. Visual observation at the time of inspection confirmed 0% opacity from equipment or building [Attachment B].
8. In compliance - CMGC demonstrated the testing required upon request verifying particulate matter emission rates from the screen and vibroscreen was not conducted (SC. 23). Response from CMGC stated the Company did not conduct testing of the emission rates per DEQ-AQD because no formal request from AQD for testing of emission units for verification had been received. However, the facility submitted documentation that the baghouse was properly maintained and operated demonstrating compliance with emission rates. AQD acknowledges there had not been a formal request for testing since . No cause for such a request had arisen [Response # 8].

9. In compliance - CMGC demonstrated particulate emissions from the hopper car unloading system did not exceed 0.15 pounds per 1000 pounds of exhaust gas, 0.14 pounds per hour nor 0.61 tons per year [SC-16]. Response from CMGC stated compliance based on equipment performance. Rationalization for the response related to Attachment B contents.
10. In compliance – CMGC demonstrated the particulate emissions from the Ball Mill and screening system did not exceed 0.15 pounds per 1000 pounds of exhaust gas, 0.10 pounds per hour nor 0.45 tons per year (SC-17). Response from CMGC stated per permits condition, documentation that the baghouse was properly maintained and operated demonstrated compliance with emission rates [Attachment B; response# 9].
11. In compliance - CMGC demonstrated the particulate emissions from the Pit Loading Operation did not exceed 0.15 pounds per 1000 pounds of exhaust gas, 0.237 pounds per hour nor 1.04 tons per year (SC-18). Response from CMGC did not contain quantified calculations. The Company based level on compliance on integrity of equipment specification calculation. Response was same as in Question# 9.
12. In compliance – CMGC demonstrated the particulate emissions from the bagging operation, covered by permit no. C-4730 did not exceed 0.1 pounds per hour or 0.04 tons per year (SC-19). Response was same as in Question# 9.
13. In compliance - CMGC demonstrated there had been no visible emission from above systems and operation. Response was same as I Question# 7 [Response # 7].

Per Permit No. 51-06: EU-BALLMILL

14. In compliance – CMGC demonstrated the EU-BALLMILL processed only inert carbon-based materials (SC-1.1). Response from CMGC indicated compliance. The Company presented MSDS records [Attachment D].
15. In compliance – CMGC demonstrated permittee did not load and unload EU-BALLMILL unless the fabric socks on the evacuation hose vacuum were installed, maintained, and operated in a satisfactory manner (SC-1.2). Records from CMGC indicated compliance [Attachment B].
16. In compliance - CMGC demonstrated permittee did not load, unload, and operate EU-BALLMILL unless all access doors were closed (SC-1.3). Response from CGMC indicated compliance. A copy of Standard Operating Procedure (SOP) was submitted [Attachment E].
17. In compliance - CMGC demonstrated all required calculations made regarding operations material used for a particular month were available for examination by the 15th of the following month (SC- 1.4). Response from CMGC presented calculation records of usage and format for recordkeeping [Attachment C].
18. In compliance – CMGC demonstrated a log of replacement of the fabric socks for EU-BALLMILL was kept in a satisfactory manner (SC-1.6). Records from CMGC indicated compliance. Replacement log submitted to AQD lists the items and dates of events [Attachment B].
19. In compliance – CMGC demonstrated records of monthly and previous 12-month rolling time period records of the type and pounds of carbon-based material processed in EU-BALLMILL were kept in a satisfactory manner (SC. 1.7). Records from CMGC indicated compliance. Response was same as in Attachment C [Response# 17].
20. In compliance – CMGC demonstrated that all exhaust gases from the EU-BALLMILL were not discharged to ambient air at any time (SC-1.8). Visual inspection confirmed compliance [Attachment E].

Inspection Areas of Focus:

1. Baghouse and discharge practice-Baghouse discharge and replacement were satisfactory. A contractor was responsible for carrying out proper and timely maintenance [Response#2].

2. EU-BALLMILL – The equipment was working in a satisfactory manner.
3. Operational practices of disposing air contaminants –The air contaminant disposal was handled through contractual operations.
4. Other associated processes of interest-perimetric boundaries surrounding the facility. The perimetric boundaries of CMGC were satisfactorily maintained. There were no fugitive black dust indicators on the snow covered walkways and pavements outside the building. There were no unusual odors. Neighbors amiably related to Mr. Newton while we walked the perimetric grounds during the inspection.
5. Parking lots were covered in white snow without the black dots that would be indicative of graphite fugitive emissions. It was determined that CMCG was keeping to the submitted Fugitive Dust Plan in a satisfactory manner.

DETERMINATION

The Cummings-Moore facility's operation was inspected. The facility was kept in a satisfactory manner. Records requested from the CMGC were tendered to DEQ-AQD timely. DEQ-AQD determined the CGMC operated in compliance with the Wayne County and PTI permit conditions. The facility improved on environmental and hygiene compliance since last inspection.

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DATE 7/27/15 SUPERVISOR JK