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Texas Commission on Environmental Quality
Investigation Report

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Customer: Building Materials Investment Corporation
Customer Number: CN605251487

Regulated Entity Name: GAF MATERIALS

Regulated Entity Number: RN100788959

Investigation # 1428434

Investigator: BRIAN CUNNINGHAM

Conducted: 07/18/2017 -- 07/18/2017

Program(s): AIR OPERATING PERMITS
AIR NEW SOURCE PERMITS

Investigation Type: Compliance Investigation

Additional ID(s): 7711A
DB0378S
2771

Address: 2600 SINGLETON BLVD,
DALLAS, TX , 75212

Incident Numbers

Site Classification MAJOR SOURCE
MAJOR SOURCE

SIC Code: 2951
SIC Code: 2952
NAIC Code: 324122

Location: 2600 Singleton Blvd

Local Unit: CITY OF DALLAS LOCAL PROGRAM

Activity Type(s): SFCI - SFCI (SITE FULL
COMPLIANCE INVESTIGATION)
SPCI - AIR SPCI - TITLE V SITE
PARTIAL COMPLIANCE INV-EPA
PCE

Principal(s):

Role

RESPONDENT

Name

BUILDING MATERIALS INVESTMENT CORPORATION

Contact(s):

Role

REGULATED
ENTITY
CONTACT

Title

ENVIRONMENTAL
CONSULTANT

Name

MS KALPALATHA
KAMBHAM

Phone

Work (972) 661-8100

REGULATED
ENTITY MAIL
CONTACT

SENIOR
ENVIRONMENTAL
ENGINEER

MR KEVIN BUSH

Phone (214) 637-8933

Other Staff Member(s):

Role

Investigator
QA Reviewer
Supervisor

Name

TAYLOR KUBIC
JONI KEACH
JONI KEACH

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CENTRAL FILE ROOM

Associated Check List

Checklist Name

AIR ANNUAL COMPLIANCE CERTIFICATION
REVIEW - SPCI

Unit Name

Facility

Investigation Comments:

INTRODUCTION

On 07/18/17 a Site Permit Compliance Investigation (SPCI)/ Site Full Compliance Investigation (SFCI) was performed at Building Materials Corporation of America (GAF Materials) located at 2600 Singleton Blvd, Dallas, Texas 75212 by Brian Cunningham and Taylor Kubic, Investigators for the Dallas Local Air Program. The purpose of this investigation was to evaluate compliance with requirements of the site's federal air quality authorization and Title 30 of the Texas Administrative Code (TAC) Chapter 122 Federal Operating Permits Program and all other state and federal air quality regulations. Mr. Kevin Bush, Senior Environmental Engineer for GAF and Ms. Kalpalatha Kambham, Environmental Consultant with Trinity Consultants were the contacts for this investigation. Mr. Bush was contacted by email on 07/11/17 to schedule this investigation and was informed of the purpose of the investigation at that time. Mr. Bush will also act as the mail contact for this investigation.

GAF is a major source of Particulate Material (PM) and Sulphur Oxides (SOx) as defined by 30 Texas Administrative Code (TAC) Chapter 122.10(13), and therefore, it is subject to the Federal Operating Permits Program. GAF is authorized to operate under Federal Operating Permit (FOP) No. O-2771, issued on 03/9/06 and renewed on 04/18/11 and NSR Air Permit No. 7711A, initially issued on 07/7/86 and recently renewed on 11/25/14. This facility is required to operate in accordance with the requirements of 30 TAC Chapter 122.143 through 30 TAC 122.146, which includes recordkeeping conditions, reporting conditions (including deviation reporting), and compliance certification conditions.

Daily Narrative

The last Title V based compliance investigation on this facility was an office permit compliance certification (OPCC) Investigation (No.1356065) conducted by the Dallas Local Air Program on 08/16/16. During that investigation, it was determined that GAF complied with all certification requirements.

An in-house review of annual compliance documents submitted by GAF was conducted. This investigation will cover the compliance period of 01/01/16 through 12/31/16. GAF submitted a change of ownership from "Building Materials Corporation of America" to "Building Materials Investment Corporation" effective 10/10/16. The TCEQ requested that GAF submit Annual Compliance Certification Form OP-CRO1 that certified from 01/01/16 to 10/09/16 and then a second Form OP-CRO1 that certified from 10/10/16 through 12/31/16 after the change of ownership. The second Form OP-CRO1 was signed and dated by the designated responsible official and was received on 01/23/17. GAF submitted semi-annual deviation reports on 06/30/16 and 01/23/17. GAF stated that no deviations were noted during the annual certification period. The Permit Compliance Certification and deviation reports were submitted within 30 days after the end of each certification period, as required by 30 TAC 122.146(2).

The on-site investigation began at 0900. Area surveillance was conducted and the following weather conditions were observed: Temp was 85° F, Humidity 67%, Wind S @ 3 mph, and Clear Skies. No visible emissions or off property odors were noted. The facility was in full operation during the investigation.

The Special Terms and Conditions of FOP O2771 were discussed and the requirement of emissions observations was evaluated. Records of quarterly opacity observations and self certification were available for review.

The Special Conditions of NSR Air Permit No. 7711A were discussed and evaluated with a records review and walkthrough of the facility. The following Special Conditions were verified to be compliant during the investigation:

Emission Limitations

1. This permit covers only the sources of emissions listed in the attached table entitled "Emission Sources – Maximum Allowable Emissions Rates" (MAERT) plus planned startup and shutdown activities.

Fuel Specifications

2. In Compliance (IC). Mr. Bush stated that the only fuel is use at the facility is sweet natural gas.

3. NA – Representatives from the TCEQ or Dallas Local Program have not requested a sample or analysis of the fuel used at GAF.

Federal Applicability

4. IC – The facility is required (and verified during the investigation) to comply with all applicable requirements of U.S. EPA regulations on Standards of Performance for New Stationary Sources in Title 40 CFR Part 60 specifically:

A. Subpart A -General Provisions;

(1) Chapter 60.7(b) GAF is required to maintain records of any MSS activities of the air pollution control equipment. Records of MSS activities were made available.

(2) Chapter 60.7(f) Maintain records of the continuous monitoring system including all testing, adjustment and maintenance, and calibration checks of the system.

B. Subpart Dc – Small Industrial/Commercial/Institutional Steam Generating Units;

(1) Chapter 60.48c GAF is required to record and maintain daily natural gas (fuel) usage for the Waste Heat Boiler and the Standby Boiler. These records were available during the investigation.

C. Subpart UU - Asphalt Processing and Asphalt Roofing Manufacture.

(1) Chapter 60.473(d) Record the operating temperature of the thermal oxidizer during stack testing and maintain records of temperature monitoring for at least 5 years. Stack testing was last performed at the facility in August 2011. Records of temperature monitoring was available during the investigation.

(2) Chapter 60.473 Record visible emissions and maintain records for the following emission points. These records were made available during the investigation:

(a) The blowing stills from PROLine 3

(b) The asphalt storage tanks in PROLine 3

(c) The saturator on PROLine 3

(d) The mineral handling and storage facilities in PROLine 3

5. IC - The facility is required to be in compliance for NESHAP regulations for Area Sources under 40 CFR part 63 specifically:

A. Subpart AAAAAA – Area Sources: Asphalt Processing and Asphalt Roofing manufacture. GAF is required to develop and maintain records of a site specific monitoring plan. GAF developed a site monitoring plan on January 2013. The plan used stack testing performed in 2011 to establish an optimal combustion zone temperature for the thermal oxidizer. GAF is also required to maintain records of emission tests, written manufactures specifications for control equipment, records of the operating temperature of the thermal oxidizer and voltage operating range for the electrostatic precipitator (ESP). These records were made available during this investigation.

Opacity/Visible Emission Limitations

6. IC – Opacity of PM emissions from the coalescing filter mist systems, dust collector stacks, bag house stacks, process heater vents, and building vents at the facility have a 5% opacity limit averaged over a six minute period. No opacity was observed during this investigation.

7. IC - Opacity of emissions from all asphalt storage tanks at the facility is limited to 0% over a six minute period. Opacity of PM emissions from any blowing still is limited to 0% over a six minute period. Opacity of emissions from any storage silo and any mineral handling operation is limited to 1% over a six minute period. No opacity was observed during this investigation.

8. IC – Opacity of PM emissions from any storage silo and mineral handling facility is limited to 1% over a six minute period. No opacity emissions were observed from any storage silos or mineral handling areas.

9. IC - No visible fugitive emissions from asphalt manufacturing operations and facilities, roads, or travel areas are allowed to leave GAF property. No visible emissions were observed leaving the property during this investigation.

Operational Limitations, Work Practices, and Plant Design

10. IC – Emissions from Stillyard Asphalt Storage Tanks, Blowing Stills, from truck and railcar loading and unloading, and self seal asphalt storage tank are vented to the direct flame incinerator.

11. IC – Fabric filter bag houses control PM emissions from the stabilizer storages, stabilizer heaters, the Line 1 stabilizer use bin, and sand application when that equipment is in use.

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12. IC – Dust collectors control PM emissions from the Line 1 Surfacing Section when that equipment is in use.
 13. IC - The direct flame incinerator was verified to operate at an average temperature of 1450° F during operations and at least 1300° F during standby operations through temperature logs. The optimal operating temperature of 1450° F and 1300° F during standby operations was established during stack testing performed in August 2011
 14. IC - The maximum allowable asphalt throughput is 32,063 lbs. /hour for Line 1 and 53,438 lbs. /hour for Line 3. Usage records verified that both lines were below throughput limits. GAF wishes to keep the actual usage numbers confidential. Throughput numbers are available in the City of Dallas Local Program confidential files.
 15. IC - The maximum allowable production rates for both Line 1 and Line 3 combined are 171 tons/hour and 1,498,000 tons /year of finished shingles. Usage records verified that both lines were below throughput limits. GAF wishes to keep the actual usage numbers confidential. Throughput numbers are available in the City of Dallas Local Program confidential files.
 16. IC - No opacity or odor nuisance conditions have been documented by TCEQ or the Dallas Local Air Program at the facility. No opacity or odors were noted during this investigation.
 17. IC - All in plant roads are paved and cleaned as necessary.
 18. IC – The stack height of the Line 1 Cooling Section shall be at least 64 ft. from ground level. The Line 3 Cooling Section stack shall be at least 73 ft. from ground level. Records showed that both stacks meet the minimum height requirements.
 19. IC – There have been no other changes in representations except for permit alteration or amendments.
 20. This Condition authorizes the following facilities by separate Standard Permit:
Registration No. 91414 for Filler Transfer Operations for NST-1/Baghouse 1 and NST-1/Baghouse 2.
- Demonstration of Continuous Compliance
21. NA - No stack sampling testing has been requested by the TCEQ Executive Director.
 22. NA– No stack sampling testing has been requested by the TCEQ Executive Director.
 23. IC – Mr. Bush stated that quarterly visible emission opacity readings are performed at the facility. Opacity reading records were made available during the investigation. If visible emissions are observed the facility is required to:
 - A. Take immediate action to eliminate visible emissions, record corrective actions, and comply with reporting requirements in 30 TAC 101.201 for emissions event reporting; or
 - B. Determine opacity using 40 CFR Part 60 Method 9 and report any opacity exceedances under the requirements of 30 TAC 101.201.
 24. IC – GAF performs quarterly visible emissions observations. The operations are performed when the facility is in full operation and according to the guidelines in 40 CFR Part 60 Method 9. Opacity reading records were made available during the investigation.
 25. IC – Weekly visible emissions observations are performed for all asphalt storage tanks, storage silos, or mineral handling area. The readings are performed according to the guidelines in 40 CFR Part 60 Method 9 and any opacity exceedances are reported as deviations. Opacity reading records were made available during the investigation.
 26. IC - Weekly visible emissions observations are performed for any blowing still. The readings are performed according to the guidelines in 40 CFR Part 60 Method 9 and any opacity exceedances are reported as deviations. Opacity reading records were made available during the investigation.

Compliance Assurance Monitoring

27. IC - Records of the temperature in the combustion chamber of the thermal oxidizer are recorded four times per hour. The minimum combustion temperature for the thermal oxidizer was set at 1450 ° F. Temperature logs

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were made available during the investigation.

28. IC - The three hour average inlet gas temperature for Line 1 and Line 3 asphalt coaters as established in 40 CFR 63 is maintained within the approved operating range. Temperature logs were made available during the investigation.

Sampling Requirements

29 - 36. NA. These special conditions describe the requirements for stack sampling at the facility. No stack sampling testing has been requested or required by the TCEQ Executive Director.

Recordkeeping

37. IC - The following records on a rolling 60 month period were available on-site and available for review during this investigation:

- A. Records of the exhaust gas temperature downstream of the thermal oxidizer.
- B. Records of VOC concentration of each vent gas stream for Line 1 and Line 3 cooling sections.
- C. Hourly asphalt throughput rates for Line 1 and Line 3.
- D. Combined Line 1 and Line 3 hourly and annual production rates of finished shingles. (These numbers are available in the Dallas Local Program Confidential File)
- E. Records of asphalt stored and used that the potential to emit HAPs.
- F. Records of repairs and maintenance of pollution abatement equipment.
- G. Quarterly observations for visible emissions and opacity determinations.
- H. Records of road cleaning or maintenance for dust control.
- I. All monitoring data specified in 30 TAC 122.144.

An emissions inventory summary for 2016 was available for review during this investigation and GAF was below emission limits in the MAERT. GAF wishes to keep emission information Confidential and a copy of the report is in the City of Dallas Confidential Files.

Time Spent On-site: 0900 - 1130 hours

EXIT INTERVIEW

Mr. Bush was informed while still on-site that no violations were noted during the initial stage of the investigation and a General Compliance Letter would be sent.

GENERAL FACILITY AND PROCESS INFORMATION

GAF Materials manufactures roofing shingles. GAF has been at its present location for over 20 years, but a roofing facility has been at this site since the 1940's. The facility has approximately 200 employees. The plant operates three shifts per day, 24 hours per day 7 days per week.

Line No. 1 makes conventional shingles. Line No. 3 makes laminate shingles. Large rolls/webs of fiberglass are fed into both shingle lines. Both surfaces of the fiberglass are coated with an asphalt and limestone mixture. The mixture is piped in from outdoor heated storage silos. After coating, a controlled layer of granules is dropped and embedded into the upper surface of the mat. The mat is flipped and a thin layer of sand is applied to the lower surface. The granules are received from hopper cars and bottom-loaded to silos via a bucket elevator. The granules are conveyed into the processing equipment. Fifteen silos contain granules and one is reserved for sand for Line #3. The silos are not equipped with dust collectors but the granules don't pose a particulate issue. Two outdoor bins hold non-colored, head lap (unexposed area of shingle) granules. Two roof-mounted, pulse air bag houses are located here; one unit for the 120 ton filler silo and the other for the filler use bin. Filler is a cheaper form of the limestone material. The filler is first off-loaded from a truck into a 120 ton, Hollow-Flayed filler silo. The material is transferred to a heater where it is heated to 300-400F°. The material is then transferred to a holding bin. The limestone and asphalt are mixed and moved by a paddle mixer and screw conveyor to the coating unit. Line No. 3 is similar in operation to Line No. 1, except for a few differences in equipment including that the granules are stored in nineteen silos and the sand in one. Two 80 ton silos contain the filler material which is entered straight into the process.

The laminated shingles involve the following: The lamination occurs after the cooling is done with self-seal asphalt based dots, heat and pressure. A second layer is added to approximately half of the shingle to create a textured appearance. After coating, the web is water cooled and cut into sheets or shingles, stacked and packaged. Where the roll of dry un-woven fiberglass mat first feeds into the system, a negative air and dry filter system captures any loose fibers. Three dust collectors with approximately 144 bags each capture indoor plant emissions.

The asphalt is received in bulk by truck or train. The material is initially received stored in two upright tanks, transferred into a holding tank, then conveyed into smaller tanks. All tanks or stills are jacketed and heated with steam coils to keep the asphalt hot. If cooling is necessary, blow still No. 13 is cooled internally, and blow still No. 26 is cooled externally with water. A total of nine tanks are used for storage. Other tanks are on-site but not in use, although functional. The facility

has 2 boilers. Boiler No. 1 has a rating of 15mmBtu and Boiler No. 2 has a rating of 10 mmBtu. An electrostatic precipitator is the VOC and PM control device for Lines No. 1 and No. 3. A knockout tank takes emissions from the asphalt blowing stills and routes them to a thermal oxidizer, which is set at 1450° F and has a continuous monitoring system

BACKGROUND

Compliance History and Performance Classification:

GAF Materials RN100788959: High - 0

Building Materials Corporation of America CN602717464: High - 0

Agreed Orders, Court Orders, and other Compliance Agreements: No violations were issued during this investigation.

Complaints: None in the past two years.

Prior Enforcement Issues: No violations were issued during this investigation.

ADDITIONAL INFORMATION:

Conclusions, Recommendations and Current Enforcement Issues: No violations were issued during this investigation. The facility will receive a General Compliance Letter

Additional Issues: None

No Violations Associated to this Investigation

Signed



Environmental Investigator

Date

8/22/17

Signed



Supervisor

Date

8/22/17

Attachments: (in order of final report submittal)

___ Enforcement Action Request (EAR)

☒ Letter to Facility (specify type) : GCL

___ Investigation Report

___ Sample Analysis Results

___ Manifests

___ Notice of Registration

___ Maps, Plans, Sketches

___ Photographs

___ Correspondence from the facility

___ Other (specify) :



August 23, 2017

Mr. Kevin Bush
GAF Materials Corporation
2600 Singleton Boulevard
Dallas, TX 75212

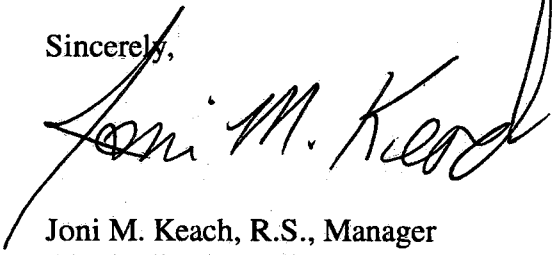
RE: Title V Site Permit Compliance Investigation (SPCI/SFCI) at: GAF Materials Corporation, 2600 Singleton Boulevard, (Dallas County), Texas, TCEQ Account Numbers: RN 100788959, CN 602717464, DB0378S

Dear Mr. Bush:

On August 18, 2017, Mr. Brian Cunningham with the City of Dallas Air Quality Compliance Program conducted an investigation of the above-referenced facility to evaluate compliance with applicable requirements for air pollution. No violations were documented during the investigation.

The City of Dallas Air Quality Compliance Program and Texas Commission on Environmental Quality (TCEQ) appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact Mr. Cunningham at 214/671-5233.

Sincerely,



Joni M. Keach, R.S., Manager
Air Quality Compliance Program
Office of Environmental Quality