

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

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Date: 7/27/12

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PROCESSED BY: MS

CHECKED BY: DR

PERMIT TO CONSTRUCT &

PERMIT TO OPERATE

Applicant name: Fontana Paper Mills, Inc. (FACILITY ID# 11716)

Mailing address: 13733 Valley Blvd.
Fontana, CA 92335

Equipment Location: 13733 Valley Blvd.
Fontana, CA 92335

EQUIPMENT DESCRIPTIONS:

APPLICATION NO. 431255

CHANGE OF CONDITION C6.1 ASPHALT STORAGE TANK(D16) BY INCREASING TEMPERATURE LIMIT:

THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE TEMPERATURE BEING MONITORED, AS INDICATED BELOW DOES NOT EXCEED 400 460 DEG F.

APPLICATION NO. 431256

CHANGE OF CONDITION C6.1 ASPHALT TANK (D18) BY INCREASING TEMPERATURE LIMIT:

THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE TEMPERATURE BEING MONITORED, AS INDICATED BELOW DOES NOT EXCEED 400 460 DEG F.

APPLICATION NO. 444632

GRANULE/SAND STORAGE AND HANDLING SYSTEM CONSISTING OF:

1. RECEIVING HOPPER (D78), TRUCK UNLOADING
2. ENCLOSED SCREW CONVEYOR (D79)

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3. SURGE BIN, (D34), WITH FILTERED VENT.
4. BUCKET ELEVATOR (D80)
5. THREE STORAGE SILOS, (D20, D22, D24), SAND OR GRANULES, EACH 10'-0" DIA X 45'-0" H, EACH WITH FILTERED VENT.

APPLICATION NO. 450893

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. DUST COLLECTOR (C82), UNITED AIR SPECIALISTS, MODEL NO. SFC4-2-H55, WITH FOUR CARTRIDGE FILTERS, FILTER AREA 1,020 SQ. FT., REVERSE PULSE
2. EXHAUST SYSTEM, WITH A 5-HP BLOWER, VENTING SAND UNLOADING AND CONVEYING SYSTEM.

APPLICATION NO. 449479

TITLE V/RECLAIM REVISION

PERMIT CONDITIONS: (SEE RECLAIM PERMIT)

BACKGROUND:

On 06/17/04, the facility filed A/N 431255 and A/N 431256 for change of condition C6.1 to increase temperature of asphalt storage tanks (D16, D18) to 460 deg. F. Current limit is 400 deg. F.

On 11/18/05, the facility filed A/N 444632 for a permit to operate (equipment operating without a permit) a sand/granule receiving and conveying system that was previously cancelled since the proposed system did not meet BACT (See A/N 343773). The sand handling/granule system consists of a receiving hopper, enclosed screw conveyor, bucket elevator, three storage silos, and surge bin.

On 11/18/05, facility also filed A/N 450893 for permit to construct/operate (equipment not constructed) a baghouse venting a sand/granule receiving and conveying system.

The following compliance activity was found in District records of the past 5 years:

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Complaints:

- No complaints found in District Records.

Notices to Comply:

- C87104, 9/01/09, to adjust natural gas usage correction factor to included pressure and temperature on all in-house uncorrected meters. No rule violation was recorded by the inspector.
- C87106, 3/17/10, to conduct proper missing data procedures for the Emergency ICE D59. No rule violation was observed by inspector.

Notices of Violation:

- P52268, 7/07/09 issue date, 1/1/08 violation date, late 2nd qtr QCER. Facility now in compliance.

PROCESS DESCRIPTION:

Fontana Paper Mills manufactures asphalt roofing products which include saturated felt paper, asphalt rolled roofing material, and ridge cap.

The asphalt handling and storage system consists of two tanks equipped with a carbon filter adsorption venting system. Asphalt temperature is maintained at no more than 460 degrees F as requested under A/N 431255 and A/N 431256. The system supplies asphalt at a maximum rate of 100 GPM to the asphalt filler mixer which is also supplied by the filler (crushed limestone) handling and storage system.

The sand handling/granule system (Application 444632) consists of a receiving hopper, enclosed screw conveyor, bucket elevator, three storage silos, and surge bin. It is used to convey either sand or granules into a storage silo. Each silo is equipped with bin vents to control PM emissions. Either granules or sand is stored in each silo. Baghouse (A/N 450893) will be installed to vent emissions from the sand unloading and conveying system.

EMISSIONS:

APPLICATION NOS. 431255 AND 431256 – D16 and D18

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Facility applied for change of condition to increase maximum temperature from 400 deg. F to 460 deg. F. Therefore, breathing losses expected to increase. Previous district engineer used EPA Tanks program (version 3.0) to calculate losses. Post mod losses are calculated using EPA Tanks program (version 4.09).

PREVIOUS EMISSIONS – 400 deg. F**Uncontrolled Emissions**Tank D16

Annual Emissions Report	(lbs/yr)	(lbs/yr)	(lbs/yr)
Liquid Contents	Standing	Working	Total
Asphalt	90.02	1525.42	1615.44
Total	90.02	1525.42	1615.44

Tank D18

Annual Emissions Report	(lbs/yr)	(lbs/yr)	(lbs/yr)
Liquid Contents	Standing	Working	Total
Asphalt	90.02	1525.42	1615.44
Total	90.02	1525.42	1615.44

Controlled Emissions

Pollutant	lb/hr	lb/day	lb/yr	30 day ave (lbs)
VOC	.001844	.04427	16.16	.044861

POST EMISSIONS: CHANGE OF CONDITION INCREASING TO 460 DEG. F**Uncontrolled Emissions**Tank D16

Annual Emissions Report	(lbs/yr)	(lbs/yr)	(lbs/yr)
Liquid Contents	Standing	Working	Total
Asphalt	190.15	1525.42	1715.58
Total	190.15	1525.42	1715.58

Tank D18

Annual Emissions Report	(lbs/yr)	(lbs/yr)	(lbs/yr)
Liquid Contents	Standing	Working	Total

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Asphalt	190.15	1525.42	1715.58
Total	190.15	1525.42	1715.58

Controlled EmissionsTank D16

Pollutant	lb/hr	lb/day	lb/yr	30 day ave (lbs)
VOC	.001986	.04766	17.16	.04766

Tank D18

Pollutant	lb/hr	lb/day	lb/yr	30 day ave (lbs)
VOC	.001986	.04766	17.16	.04766

Project Emissions (Pre-Mod vs. Post-Mod)**TANKS D16 and D18 Total**

Pollutant	lb/hr	lb/day	lb/yr	30 day ave (lbs)
VOC (Pre Mod)	.003688	.08854	32.32	.089722
VOC (Post Mod)	.003972	.09532	34.32	.09532
Change in Emissions	+.000284	+.00678	+2	+.0056

APPLICATION NO. 444632 – Unloading, Conveying, and Storage

Baghouse (A/N450983)

Filter ratio — $1,700 \text{ scfm}/1,020 = 1.7 \text{ scfm/sq.ft.}$ This in an acceptable ratio for a reverse air cleaning b/h.

PM10 Emissions

Unloading Transfer Rate: 126,000 lbs/hr or 63 tons/hr

Operating Schedule: 4 hr/day, 7 days/week, 52 weeks/year

Emission Factors: .0021 lb/ton (Sand transfer AP42)

0.5 lb PM10/lb PM

0.99 lb/lb (Baghouse Control AP42)

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0.99 lb/lb Filtered Vents

Emission Points: Total of 6 (Truck Discharge, Conveyor, Conveyor Transfer, Three Storage Silos)

Uncontrolled Emissions
 (Transfer Rate x Emission Factor x Emission Points x Schedule)

PM10 hourly emissions = 63 tons/hr x .0021 lb/ton x 6 emission points

	TSP	PM10
lb/hr	.80	.40
lb/day	3.18	1.58
lb/month	95.4	47.4
lb/year	1137.6	568.8

Controlled Emissions

[(Uncontrolled Emissions x (1 – Baghouse Control Factor)

	TSP	PM10
lb/hr	0.008	0.004
lb/day	0.0318	0.0158
lb/month	.95	.47
lb/year	11.38	5.69

Annual Emissions

PM10 = **5.69 lbs/yr**

30 day Average

PM10 = **.0158 lbs/day**

RULES EVALUATION:

RULE 212 - Standard for Approving Permits

Paragraph 212(c)(1) Requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school. According to the website yahoo.com the nearest school, Henry J. Kaiser High School, is at least 5,000 feet from Fontana

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Paper Mills property line. A 30-Day Public Notice is not required under this paragraph.

Paragraph 212(c)(2) The equipment will not result in on-site emission increase exceeding the daily maximum emissions as specified in the table in Rule 212(g). Therefore, a 30-day public notice period will not be required under this paragraph.

Paragraph 212(c)(3) The equipment will not result in on-site toxic emission increase exceeding cancer risk levels specified under this paragraph. Therefore, Public notice will not be required.

RULE 401 - Visible Emission: No visible emission is expected if the equipment is well maintained and properly operated. Therefore, compliance is expected.

RULE 402 - Public Nuisance: No complaints in the district database. All notices were corrected, therefore is not expected to create any nuisance problems.

RULE 404 - Particulate Matter Concentration:

A/N 444632: Grain loading: = $(0.008 \text{ lb/hr}) (7,000 \text{ g/lb}) / (1,700 \text{ scfm}) (60 \text{ min/hr}) = 0.0005 \text{ gr/scf}$. Compliance is expected.

RULE 405 – Solid Particulate Matter Weight:

A/N 444632: Process weight per hour is 63 tons. PM is under maximum discharge rate of 18.2 lbs/hr. Compliance is expected.

REG XIII – BACT:

A/N 431255 and 431256 – Asphalt Storage Tanks

Subcategory/	VOC	NOx	SOx	CO	PM
Fixed Roof	Vapor Recovery System with an Overall System Efficiency of $\geq 95\%$ (7-11-97)				

A/N 444632 – Sand Granule Receiving, Conveying, Storage

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Subcategory/	VOC	NOx	SOx	CO	PM
Storage Tanks and Silos					Baghouse or Filtered Vent for Dry Material; Water Spray or Adequate Moisture for Wet Material (07-11-97)

Subcategory/	VOC	NOx	SOx	CO	PM
Other Dry Materials Handling ²⁾					Enclosed Conveyors and Baghouse (7-11-97)

Change of Condition (A/N's 431255 and 431256) to increase asphalt storage temperature did not trigger BACT, although the tanks meet BACT standards.

Proposed Sand Granule/Receiving and Conveying System A/N 444632 expected to comply with BACT since the unloading and conveying system will include an enclosed conveyor and baghouse. In addition, storage silos will carry filtered vents.

REG XIII – OFFSETS:

A/N's 431255, 431256 - Emissions are expected to be less than 0.5 lbs/day. Offsets not required.

A/N 444632 - Emissions are expected to be less than 0.5 lbs/day. Offsets not required.

REG XIII – MODELING:

Modeling is not required as the PM10 emissions for each device are less than the .41 lbs/hr specified in appendix A of Rule 1303.

Reg XXX - Title V Permits: Fontana Paper Mills has applied for a Title V renewal and "De Minimis Permit Revision." Therefore, EPA 45-day review is required.

CONCLUSIONS AND RECOMMENDATIONS:

A/N 450893 - Issue PC, as indicated in facility permit, and as described in this report.

A/N 444632 – Issue P/O only after A/N 450893 dust collection system is installed.

A/N 431255, 431256 – Issue P/O for change of condition.