

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATION

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PERMIT TO OPERATE EVALUATION

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. 431253

MODIFICATION OF HEATER D45 BY CHANGING LOW NOX BURNER:

HEATER, D45, STRUTHER WELLS, 7,000,000 BTU PER HR, NATURAL GAS FIRED, WITH AN ALZETA CORPORATION LOW NOX BURNER, MODEL NO. CSB11-15SQ-3050, SERIAL NO. J990112.

APPLICATION NO. 449479

RECLAIM/TITLE V REVISION APPLICATION

APPLICATION NO. 498636

TITLE V RENEWAL

PERMIT CONDITIONS: (SEE RECLAIM PERMIT)

BACKGROUND:

Fontana Paper Mills, a Title V, and NOx RECLAIM Facility, ID# 11716, was issued a Title V initial permit on 05/11/2000.

On 06/08/04, the facility filed A/N 431253 for modification of process heater (D45) by changing the burner (same rating).

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On 10/07/05, facility filed A/N 449479 for De Minimis Significant RECLAIM/Title V Revision.

On 05/12/09, facility filed A/N 498636 for a Title V Renewal.

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

Complaints:

- No complaints found in District Records.

Notices to Comply:

- D10036, 8/10/07, for Recordkeeping, Permit conditions, Gas Co. billing. No rule violation was recorded by the inspector.
- 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 is 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 heater (A/N 431253) is equipped with a low NOx burner to meet the NOx BACT limit of 20 PPMV and CO BACT limit of 100 PPM (A/N 431253). The heater heats hot oil to a temperature sufficient to heat the asphalt in the storage and surge tanks. The hot oil expansion tank is totally enclosed and not vented to the atmosphere. The only expected emissions are the criteria pollutants from the combustion of natural gas.

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EMISSIONS:

APPLICATION NO. 431253 – D45

PRE MODIFICATION EMISSIONS – PROCESS HEATER, 7 MMbtu/hr

NSR ENTRY: D45 (A/N 343777):

ROG: 2.8 lb/mmscf (Permit Processing Handbook Vol.1)

SOx: .83 lb/mmscf (form B-1)

PM10: .33 lb/mmscf (Source Test 10/11/01)

CO: 228ppmV@ 3% O2 (BACT limit)

NOx: 22.8 ppmV@ 3% O2 (BACT limit)

| Device | Pollutant | Lb/hr | Lb/day | Lb/year | 30 day ave. |
|---------------------------|-------------|-------|--------|---------|-------------|
| D45 7 MMbtu/hr | ROG | 0.019 | 0.46 | 164.16 | 0 |
| | SOX | 0.01 | 0.24 | 0.24 | 0 |
| | PM10 | .01 | .24 | 87.36 | 0 |
| | NOX | .19 | 4.56 | 1659.84 | 5 |
| | CO | 1.9 | 45.6 | 16598.4 | 46 |

POST MODIFICATION EMISSIONS – PROCESS HEATER, 7 MMbtu/hr

Estimated Emissions:

Default emission factors are as follows (Information from “General Instruction Book for the AQMD 2007-2008 Annual Emission Reporting Program”, Appendix A):

ROG: 2.8 lb/mmscf

SOx: 0.6 lb/mmscf

PM10: .33 lb/mmscf (Source Test 10/11/01)

CO: 100ppmV@ 3% O2 (Source Test 01/20/09)

NOx: 20 ppmV@ 3% O2 (Source Test 01/20/09)

(lb/mmscf = ppmv * (20.9/29.9-%O2) * 1.195E-7 * 8710 * 1 * 1050)

Lb/mmscf = 29.1

| Device | Pollutant | Lb/hr | Lb/day | Lb/year | 30 day ave. |
|----------------------------|-------------|--------|--------|---------|-------------|
| D 45 7 MMbtu/hr | ROG | 0.019 | 0.46 | 164.16 | 0 |
| | SOX | 0.01 | 0.02 | 7.99 | 0 |
| | PM10 | 0.01 | .24 | 87.36 | 0 |
| | NOX | 0.1694 | 4.0656 | 1476.38 | 4 |
| | CO | 0.23 | 5.6 | 2038.4 | 2.12 |

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Project Emissions (Pre-Mod vs. Post-Mod)

| Pollutant | Pre-Mod (lbs/day) | Post-Mod (lbs/day) | Increase (lbs/day) |
|------------------|------------------------------|-------------------------------|-------------------------------|
| ROG | .46 | 0.46 | 0 |
| SOX | .24 | 0.02 | -.22 |
| PM10 | .24 | .24 | 0 |
| NOX | 4.56 | 4.0656 | -.5 |
| CO | 45.6 | 24.86 | -20.74 |

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 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 1146 – Emissions from Process Heaters: Since the amendment to the Rule in September, 2008, CO emissions are no longer required to be tested annually. Condition D28.5 will be updated for D45 by removing the annual testing requirement for CO. Facility is RECLAIM, thus NOx requirement under Rule 1146 does not apply.

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RULE 1303 – BACT:**A/N 431253 – Process Heater Non Refinery**

| Subcategory/ | VOC | NOx | SOx | CO | PM |
|----------------------------------------------|-----|-----------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------|----|
| Natural Gas or Propane Fired, < 20 MM Btu/hr | | ≤ 20 ppmv dry corrected to 3% O ₂ (10-20-2000) | Natural Gas (1990) | Natural Gas (10-20-2000) ≤50 ppmv for firetube type, ≤ 100 ppmv for watertube type, dry corrected to 3% O ₂ (10-20-2000) | |

RULE 1303 –Modeling and Offsets:**A/N 431253 – Modification to Heater (D45)**

Modification to burner has no increase in emissions since the burner has the same heat input rating. Modeling analysis not required since emissions do not exceed screening levels. Offsets are not required since there is no emission increase.

OFFSETS: FACILITY WIDE TOTALS (LBS/DAY)

| | ROG | SOX | NOX | CO | PM10 |
|-----------------------|-----|-----|-----|----|------|
| PREVIOUS TOTAL | 103 | 0 | 27 | 36 | 15 |
| INCREASE | 0 | 0 | 0 | 0 | 0 |
| NEW TOTAL | 103 | 0 | 27 | 36 | 15 |

RULE 2005 – NEW Source Review for RECLAIM**A/N 431253 – Heater D45**

Equipment complies with BACT requirements. Modeling is exempt as stated under 2005(k)(5). Source Test conducted on December 30, 2008 validates NO_x < 20 ppm and CO < 100 ppm. Source Test shows no increase in NO_x emissions. Compliance is expected.

RULE 1401**A/N 431253 – Heater D45**

There is no increase in emissions expected from replacing burner on heater (D45).

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Therefore, no increase in toxic emissions expected from natural gas usage.

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.

Rule 3006(a)(1) – Fontana Paper Mills has applied for a Title V permit renewal. Therefore, Public Notice is required.

CONCLUSIONS AND RECOMMENDATIONS:

A/N 431253 - Issue P/O, as indicated in facility permit, and as described in this report.

A/N 436381 – Cancel Title V Renewal.

A/N 498636 – Issue Title V Renewal.