

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
1947 Galileo Court, Suite 103, Davis, CA 95616
(530)757-3650

TITLE V PERMIT STATEMENT OF BASIS

PERMIT NUMBER: F-00502-7

ENGINEER: Courtney Graham

DATE: November 16, 2010

Facility Name: Insulfoam, LLC
Mailing Address: 1019 Pacific Ave. Suite 1501
Tacoma, WA 98402

Location: 1155 Business Park Drive
Dixon, CA 95620

Responsible Official: James R. Johnson
Title: Vice President

Application Contact: Shawn Osler
Phone: (253) 779-9200

I. Facility Description

This facility is a processor of expanded polystyrene (EPS) used for the building material industry.

II. INSIGNIFICANT EMISSIONS UNIT INFORMATION

Insignificant Emissions Units

Insignificant emissions units or exempted equipment may be supplemented, replaced or modified with non-identical equipment without notice provided exemption status has not changed as defined in current district or federal rules. The equipment listed in Table 1 is a partial listing of equipment currently identified as exempt or insignificant and not required to obtain an operating permit pursuant to Rule 3.2, Exemptions, of the Yolo Solano Air Quality Management District.

Table 1. Exempted And Insignificant Emissions Units (partial listing)

| Insignificant Equipment Description | Basis for Exemption |
|---|---------------------------|
| Motor vehicles | District Rule 3.2, §101.1 |
| Air conditioning, refrigeration, ventilating or vacuum cleaning systems not designed to remove air contaminants generated by equipment which would require a permit. | District Rule 3.2, §103 |
| Combustion and heat transfer equipment: internal combustion engines <50 HP; combustion equipment with a maximum heat input of <1 million BTU/hour | District Rule 3.2, §105 |
| Repairs or maintenance not involving structural changes to any equipment for which a permit has been granted. | District Rule 3.2, §108 |
| Tanks, reservoirs, vessels, or other containers and their associated dispensing, pumping, and compression systems exclusively for the storage of liquified or compressed gases. | District Rule 3.2, §109 |
| Unheated non-conveyorized solvent rinsing containers with an open surface area of 11 square feet or less providing no more than 25 gallons of solvent per year are evaporated or lost to the atmosphere. | District Rule 3.2, §110 |
| Valves, flanges, unvented pressure vessels associated with insignificant activities, brazing, soldering, welding and cutting torches, and any other equipment providing that uncontrolled emissions never exceeds two (2) pounds in any 24 hour period. | District Rule 3.2, §113 |

III. Significant Emissions Unit Information

Each of the sources has been constructed pursuant to issuance of an authority to construct in accordance with District Rules 3.1 and 3.4.

Identification Number: P-19-79(a6)

Equipment Description: **Pre-Expansion equipment:** Two (2) PJX 4000D batch pre-expanders with fluidized bed dryers, 90 hp total. **Aging equipment:** Enclosed aging area with twenty (20) aging bags; heater serving aging room. **Block Molding Equipment:** 24' Nuova Idropress block mold at 78.5 total hp; 16' Nuova Idropress block mold at 88.5 total hp; Specialty Flotation mold at 2 hp; Geo Tech mold at 2.25hp. **Block Processing Equipment:** Three (3) cutting lines with slabber, down cutter, conveyors and stretch wrap at 21.25 total hp; laminator and ancillary equipment at 5 hp total; tongue and groove machine and ancillary equipment at 44.5 total hp; Holey Board and ancillary equipment at 9 total hp; Tuff Roof and ancillary equipment at 3 total hp.

Control Equipment: **Aging room control system:** enclosed aging area , with heated makeup air to be used when needed to maintain minimum temperature; captured emissions destroyed in a Regenerative Thermal Oxidizer (RTO). **Processing equipment control system:** surge chamber, drop out tank, and condenser; captured emissions are routed to the RTO, either directly or through the aging room. RTO for destruction of captured emissions, model #SSE15K-95X-RTO, serial #2005-215-0306, 15,000 cfm.

Identification Number: P-59-93(t)

Equipment Description: 14.645 MMBtu/hr natural gas fired Cleaver Brooks, Model No. CB786-350, Serial No. L5 1998

Control Equipment: Low NOx burner, flue gas recirculation (FGR) system

Identification Number: P-82-96(t)

Equipment Description: 6.27 MMBtu/hr Cleaver Brooks natural gas fired boiler, Model #CB700-150, Serial #L79825

Control Equipment: Low NOx Burner

IV. Title V Applicability

The source has submitted an application for renewal of their Title V permit. The facility potential to emit exceeds the Title V threshold of 25 tons per year of VOC and is subject to the requirements of District Rule 3.8. The facility emission totals are listed below, in Table 2:

Table 2. Facility Total Criteria Pollutant Emissions

| Criteria Pollutant Emissions (tons per year) | | | | | |
|--|--------|-------|-----------------|-----------------|------------------|
| Emission Unit Name | VOC | CO | NO _x | SO _x | PM ₁₀ |
| P-59-93(t) | 0.10 | 18.89 | 2.02 | 0.02 | 0.48 |
| P-82-96(t) | 0.06 | 8.09 | 1.00 | 0.01 | 0.18 |
| P-19-79(a6) | 175.00 | 1.47 | 1.75 | 0.01 | 0.13 |
| Total | 175.16 | 28.45 | 4.77 | 0.04 | 0.79 |

V. APPLICABLE FEDERAL REQUIREMENTS

RULE 2.3 Ringelmann Chart (Adopted 10/1/71)

Rule Description

_____ This rule specifies the allowable opacity limit for sources in the District. This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.

Compliance Status

The rule applies to all emission units at the stationary source. The source is currently in compliance with the rule.

Permit Condition

The permit holder shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is:

- a. As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart as published by the United States Bureau of Mines; or
- b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection a. of this condition.
[District Rule 2.3]

RULE 2.5 Nuisance (Adopted 10/1/71)

Rule Description

_____ This rule requires that sources are not a public nuisance.

Compliance Status

The rule applies to all emission units at the stationary source. The source is currently in compliance with the rule.

Permit Condition

The permit holder shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property. [District Rule 2.5]

This permit condition is federally enforceable because it derives from District Rule 2.5 (Nuisance) that is currently part of the SIP. The District is taking steps to remove Rule 2.5 from the SIP. Once the U.S. EPA has taken final action to remove District Rule 2.5 from the SIP, this permit condition will become state-enforceable only.

RULE 2.11 Particulate Matter (Adopted 7/19/74)

Rule Description

This rule specifies the allowable particulate matter (PM) emission rate at standard conditions. For the purposes of this evaluation, the PM emissions are considered to be 100% PM₁₀ (PM with an aerodynamic diameter of 10 microns or less). This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.

Compliance Status

This rule applies to all emissions units at the source. The source is currently in compliance with the rule.

Requirement

The Permit Holder shall not release or discharge into the atmosphere from any source, particulate matter in excess of 0.3 grains per cubic foot of exhaust volume as calculated to standard conditions.

Streamlined Demonstration for P-19-79(a6)

The PM emitted by the EPS block molding process (P-19-79(a6)) is due to the combustion emissions from the RTO. This rule has a standard that relates to exhaust flow (in standard cubic feet) and the only release point covered by this permit which would be subject to the rule is the RTO exhaust stack.

The requirements of the rule can be streamlined by conditions required by District Rule 3.4 (New Source Review). The streamlining demonstration is shown below:

The District Rule 3.4 requirement in P-19-79(a6) is 0.7 lb/day PM10. The corresponding emission concentration is calculated below using the 15,000 cfm rating of the RTO:

$$=0.7 \text{ lb PM10/day} * 7,000 \text{ grains/lb} * 1 \text{ day/24 hr} * 1 \text{ min/15,000 cubic feet} * 1 \text{ hour/60 min} = 0.0002 \text{ gr/dscf}$$

Streamlined Condition: PM10 emissions from the EPS Process (P-19-79(a6)) shall not exceed 0.7 lb/day, 66 lb/1st calendar quarter, 66 lb/2nd calendar quarter, 67 lb/3rd calendar quarter, 67 lb/4th calendar quarter, and 0.13 tons/year. [District Rules 2.11, 2.19, and 3.4/C-07-195]

Streamlined Demonstration for P-59-93(t)

The District Rule 3.4 requirement in P-59-93(t) is 4.6 lb/day PM10. The corresponding emission concentration for the boiler is calculated below using the 14.645 MMBtu/hr rating for the natural gas fired burners on the permit listed above and MMBtu/8,710 dscf (F Factor from 40 CFR 60 Appendix A Table 19-1):

$$=4.6 \text{ lb PM10/day} * 7,000 \text{ grains/lb} * 1 \text{ day/1,440 min} * \text{MMBtu/8,710 dscf} * 1 \text{ hr/14.645 MMBtu} * 60 \text{ min/hour} = 0.01 \text{ gr/dscf}$$

Streamlined Condition: For the boiler operating under P-59-93(t), PM10 emissions shall not exceed 4.6 lb/day, 254 lb/1st calendar quarter, 211 lb/2nd calendar quarter, 211 lb/3rd calendar quarter, 284 lb/4th calendar quarter, and 0.48 tons/year. [District Rules 2.11, 2.16, and 3.4/C-96-42]

Streamlined Demonstration for P-82-96(t)

The District Rule 3.4 requirement in P-82-96(t) is 1.7 lb/day PM10. The corresponding emission concentration is calculated below using the 6.27 MMBTU/hr rating for the natural gas fired burners on the permit listed above and MMBtu/8,710 dscf (F Factor from 40 CFR 60 Appendix A Table 19-1):

$$=1.7 \text{ lb PM10/day} * 7,000 \text{ grains/lb} * 1 \text{ day/1,440 min} * \text{MMBtu/8,710 dscf} * 1 \text{ hr/6.27 MMBtu} * 60 \text{ min/hour} = 0.009 \text{ gr/dscf}$$

Streamlined Condition: For the boiler operating under P-82-96(t), PM10 emissions shall not exceed 1.7 lb/day, 102 lb/1st calendar quarter, 44 lb/2nd calendar quarter, 44 lb/3rd calendar quarter, 59 lb/4th calendar quarter, and 0.18 tons/year. [District Rules 2.11, 2.16, and 3.4/C-96-43]

RULE 2.12 Specific Contaminants (Adopted 7/19/74)

Rule Description

This rule specifies the allowable sulfur dioxide (SO₂) emission rates at standard conditions. This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.

Compliance Status

This rule applies to all emission units at the source. The source is currently in compliance with the rule.

Requirement

The Permit Holder shall not release or discharge into the atmosphere from any single source a) sulfur dioxide in excess of 0.2 percent by volume; b) particulate matter in excess of 0.3 grains per cubic foot of exhaust volume as calculated to standard conditions.

Streamlined Demonstration for P-19-79(a6)

The sulfur oxides emitted by this process are due to the combustion emissions from the RTO. This rule has a standard that relates to percent of sulfur dioxide emissions in the exhaust and the only release point covered by this permit which would be subject to the rule is the RTO exhaust stack.

The requirements of the rule can be streamlined by conditions required by District Rule 3.4 (New Source Review). The requirements for PM have been streamlined by the previous rule. The streamlining demonstration for sulfur dioxide is shown below:

The District Rule 3.4 requirement in P-19-79(a6) is 0.1 lb/day SO_x. The corresponding emission concentration is determined below using the 4 MMBTU/hr rating for the natural gas fired burner on the permit listed above and MMBtu/8,710 dscf (F Factor from 40 CFR 60 Appendix A Table 19-1):

$$=0.1 \text{ lb/day} * \text{day}/24 \text{ hours} * \text{hour}/4 \text{ MMBtu} * \text{MMBtu}/8,710 \text{ dscf} * 379 \text{ dscf} \text{ SO}_2/\text{mole} * \text{mole}/64 \text{ lb SO}_2 * 100 = 0.00007\%$$

Streamlined Condition: SO_x emissions from the EPS Process (P-19-79(a6)) shall not exceed 0.1 lb/day, 5 lb/1st calendar quarter, 5 lb/2nd calendar quarter, 5 lb/3rd calendar quarter, 5 lb/4th calendar quarter, 0.01 tons/year. [District Rules 2.12 and 3.4/C-07-195]

Streamlined Demonstration for P-59-93(t)

The District Rule 3.4 requirement in P-59-93(t) is 0.2 lb/day SO_x. The corresponding emission concentration is determined below using the 14.645 MMBTU/hr rating for the natural gas fired burner on the permit listed above and MMBtu/8,710 dscf (F Factor from 40 CFR 60 Appendix A Table 19-1):

$$=0.2 \text{ lb/day} * \text{day}/24 \text{ hours} * \text{hour}/14.645 \text{ MMBtu} * \text{MMBtu}/8,710 \text{ dscf} * 379 \text{ dscf} \\ \text{SO}_2/\text{mole} * \text{mole}/64 \text{ lb SO}_2 * 100 = 0.00004\%$$

Streamlined Condition: For the boiler operating under P-59-93(t), SO_x emissions shall not exceed 0.20 lb/day, 10.6 lb/1st calendar quarter, 8.8 lb/2nd calendar quarter, 8.8 lb/3rd calendar quarter, 11.8 lb/4th calendar quarter, and 0.02 tons/year. [District Rules 2.12, 2.16, and 3.4/C-96-42]

Streamlined Demonstration for P-82-96(t)

The District Rule 3.4 requirement in P-82-96(t) is 0.1 lb/day SO_x. The corresponding emission concentration is determined below using the 6.27 MMBTU/hr rating for the natural gas fired burner on the permit listed above and MMBtu/8,710 dscf (F Factor from 40 CFR 60 Appendix A Table 19-1):

$$=0.1 \text{ lb/day} * \text{day}/24 \text{ hours} * \text{hour}/6.27 \text{ MMBtu} * \text{MMBtu}/8,710 \text{ dscf} * 379 \text{ dscf} \\ \text{SO}_2/\text{mole} * \text{mole}/64 \text{ lb SO}_2 * 100 = 0.00005\%$$

Streamlined Condition: For the boiler operating under P-82-96(t), SO_x emissions shall not exceed 0.1 lb/day, 6 lb/1st calendar quarter, 4 lb/2nd calendar quarter, 4 lb/3rd calendar quarter, 6 lb/4th calendar quarter, and 0.01 tons/year. [District Rules 2.12, 2.16, and 3.4/C-96-43]

Rule 2.16 Fuel Burning Heat or Power Generation (Adopted 10/1/71)

Rule Description

The purpose of this rule is to control the discharge of contaminants into the atmosphere of any non-mobile fuel burning equipment used for a heat or power generator unit.

Compliance Status

The rule is applicable to the boilers operating under P-59-93(t) and P-82-96(t). Per section c.1. of the rule, the natural gas used for the EPS Process (P-19-79(a6)) is exempt because the fuel is used in air pollution control equipment to destroy air contaminants with combustion. The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the SIP. The source is currently in compliance with the rule.

Requirement

_____ The permit holder shall not release or discharge into the atmosphere from any source, a.) 200 pounds per hour of sulfur compounds; b.) 140 pounds per hour of nitrogen oxides; c.) 40 pounds per hour of combustion particulate derived from the fuel.

Streamlined Demonstration for P-59-93(t) and P-82-96(t)

The daily limits for sulfur compounds, nitrogen oxides, and particulate for both boilers are less than the respective hourly limits. Permit conditions are not required.

RULE 2.17 Circumvention (Adopted 10/1/71)

Rule Description

_____ This rule prevents sources from concealing emissions to the atmosphere.

Compliance Status

The rule is applicable to all emission units at the facility. The source is currently in compliance with the rule.

Permit Condition

The permit holder shall not build, erect, install or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26, Part 3 and Part 4 of the Health and Safety Code of the State of California or District Rules or Regulations. [District Rule 2.17]

RULE 2.19 Particulate Matter Process Emission Rate (Adopted 10/1/71)

Rule Description

_____ This rule limits the pound per hour particulate matter emission rate based on the amount of material processed.

Compliance Status

The boilers operating under P-59-93(t) and P-82-96(t) are exempt from the requirements of the rule pursuant to Rule 2.19 §a. which requires the use of Rule 1.1 §226 to define process weight. Rule 1.1 §226 states that "Solid Fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not."

The rule applies to EPS Block Molding Process (P-19-79(a6)). The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the SIP. The source is currently in compliance with the rule.

Requirement

The Permit Holder shall not discharge in any one hour from any process unit particulate matter of a weight in excess of the amount shown in the Rule 2.19 Table.

Streamlined Demonstration for P-19-79(a6)

The District Rule 3.4 requirement for P-19-79(a6) is 0.7 lb/day or 0.03 lb/hour PM. The process is limited to approximately 6,000 lb/hour by the pre-expander capacities. The Allowable Emission Rate Per Hour shown in the Rule 2.19 Table for process weights of more than 5,400 lb/hr and up to and including 7,000 lb/hr, is 8 lb/hr.

Streamlined Condition: PM10 emissions from the EPS Process (P-19-79(a6)) shall not exceed 0.7 lb/day, 66 lb/1st calendar quarter, 66 lb/2nd calendar quarter, 67 lb/3rd calendar quarter, 67 lb/4th calendar quarter, and 0.13 tons/year. [District Rules 2.11, 2.19, and 3.4/C-07-195]

RULE 2.27 Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (Revised 8/14/96)

Rule Description

The purpose of this rule is to provide a control measure to limit emissions of NOx from industrial, institutional, and commercial boilers, steam generators, and process heaters in conformance with BARCT determinations approved by the California Air Resources Board to meet the requirements of the California Clean Air Act.

Compliance Status

This rule is applicable to the two boilers (P-59-93(t) and P-82-96(t)) operating at this facility. The source is currently in compliance with the rule.

Permit Conditions

NOx emissions shall not exceed 0.036 lbs/MMBtu of heat input, or 30 ppmv, and CO emissions shall not exceed 400 ppmv, referenced at 3% O₂ dry stack gas conditions. [District Rule 2.27, §301]

An owner or operator shall have the option of complying with either the pounds-per-million-Btu emission rates or the parts-per-million-by-volume emission limits specified in Section 301. [District Rule 2.27, §402.1]

All ppmv emission limits specified in Sections 110 and 301 of Rule 2.27 are referenced at dry stack-gas conditions and 3.00 percent by volume stack-gas oxygen. Emission concentrations shall be corrected to 3.00 percent oxygen as follows [District Rule 2.27, §402.3]:

$$[\text{ppm NOx}]_{\text{corrected}} = \frac{20.95\% - 3.00\%}{20.95\% - [\% \text{O}_2]_{\text{measured}}} * [\text{ppm NOx}]_{\text{measured}}$$

$$[\text{ppm CO}]_{\text{corrected}} = \frac{20.95\% - 3.00\%}{20.95\% - [\% \text{O}_2]_{\text{measured}}} * [\text{ppm CO}]_{\text{measured}}$$

All pounds-per-million-BTU emission rates shall be calculated as pounds of nitrogen dioxide (NO₂) per million Btu of heat input. [District Rule 2.27, §402.4]

All emission concentrations and emission rates shall be based on 15-consecutive-minute averages. These averages shall be calculated from no less than five data sets, recorded from sampling on intervals of no greater than three minutes. [District Rule 2.27, §402.5]

The owner or operator shall perform annual source tests in accordance with Section 502 or tune-ups in accordance with Section 600 to demonstrate compliance with this rule. If annual tune-ups are used to certify compliance, then the tune-up data demonstrating the equipment is operating within the parameters established during the initial source test must be submitted to the District. The Air Pollution Control Officer shall require additional source testing if the tune-up data indicates a deviation from the parameters established in the initial source test. [District Rule 2.27, §402.7]

The owner or operator shall, at least every twelve months, submit either source or tune-up test reports on each unit for each fuel burned, including any fuels which may be burned in accordance with Section 110 of Rule 2.27. For units complying with Section 302.2, of Rule 2.27, tune-up verification reports shall also be submitted not less than once every twelve months. Test reports shall include the operational characteristics of all flue-gas NO_x reduction equipment that were monitored as required by Section 303.2 of Rule 2.27. [Rule 2.27, §403]

All emission determinations shall be made in the as-found operating condition, except that emission determinations shall include at a minimum at least one source test conducted at the maximum firing rate allowed by the District permit, and no compliance determination shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or shut off, for thirty minutes or longer. [District Rule 2.27, §402.2]

Compliance with NO_x emission requirements and the CO and O₂ stack-gas requirements shall be determined using the following test methods: [District Rule 2.27, §502]

- a. Oxides of Nitrogen - ARB Method 100
- b. Carbon Monoxide - ARB Method 100

- c. Stack-Gas Oxygen - ARB Method 100
- d. NOx Emission Rate (Heat Input Basis) - EPA Method 19

The cumulative annual usage of fuel shall be monitored from utility service meters, purchase, or tank fill records, or by any other acceptable methods approved by the Air Pollution Control Officer. [District Rule 2.27, §402.9]

The permitted source shall monitor and record for each unit the Higher Heating Value (HHV) and cumulative annual usage of each fuel, including each nongaseous fuel, from utility service meters, purchase, or tank fill records, or by any other acceptable methods approved by the District. The records shall be updated weekly and made available to the District upon request. Historic annual data for the five (5) previous calendar years shall be kept and made available to the District upon request. [District Rule 2.27, §501 and Rule 3.8, §302.6]

Test methods other than those specified in Section 502.1 of Rule 2.27 for oxides of nitrogen, stack-gas oxygen, and stack-gas carbon monoxide, may be used to determine compliance so long as they are functionally equivalent and approved by the Air Pollution Control Officer. [District Rule 2.27 § 502.2]

RULE 2.33 Adhesives Operation (Adopted 9/14/94)

Rule Description

The purpose of this rule is to limit the emissions of VOC from the application of adhesives.

Compliance

The facility uses adhesives or adhesive primers containing 20 grams or less per liter (0.17 lb/gal) of VOC. The version of the rule used in this evaluation is the rule that was revised on September 14, 1994, and is part of the SIP. The source is exempt from the requirements of Rule 2.33 pursuant to section 110.2.

Permit Condition

Permit conditions are not required.

RULE 2.41 Expandable Polystyrene (EPS) Manufacturing Operations (Adopted 9/10/08)

Rule Description

This rule limits the emissions of VOCs from the manufacturing of EPS products by requiring a control system and by limiting the raw material VOC content.

Compliance Status

This rule is applicable to the EPS block molding operation (P-19-79(a6)). The source is currently in compliance with the rule. The rule was submitted to EPA for SIP approval on 12/23/08, but has not been acted upon, therefore the rule is not federally enforceable.

Permit Conditions

No permit conditions are required.

RULE 3.1 General Permit Requirements (Adopted 2/23/94)

Rule Description

The purpose of this rule is to provide an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of permits.

Compliance Status

The source is currently in compliance with the rule. The version of the rule used in this evaluation is the rule adopted on February 23, 1994, and is part of the California SIP. For reference, Page 67068 of the Federal Register, Vol. 69, No. 220 documents that the SIP approved version of Rule 3.1 was “deleted without replacement Rule 3.1, paragraphs 403 and 406.” No part of the proposed Title V permit has references to either Section 403 (dealing with Denial of Applications) or Section 406 (dealing with Appeals).

Permit Conditions

No person shall build, erect, alter, or replace any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants, without first obtaining an authorization to construct from the Air Pollution Control Officer as specified in Section 401 of District Rule 3.1. [District Rule 3.1, §301.1]

No person shall operate any facility, article, machine, equipment, or other contrivance, for which an authorization to construct is required by District Rules and Regulations without first obtaining a written permit from the Air Pollution Control Officer. [District Rule 3.1, §302.1]

No person shall operate any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, without obtaining a permit from the Air Pollution Control Officer or the Hearing Board. [District Rule 3.1, §302.2]

The owner or operator of any facility, article, machine, equipment, or other contrivance for which a permit to operate is in effect shall notify the District office whenever a breakdown, malfunction, or operational upset condition exists which would tend to increase emissions of air pollutants or whenever any operating condition contrary to any provision of the permit to operate exists. Such notice shall be given to the District no later than four hours after occurrence during regular workday hours or no later than two hours of the District workday following an occurrence not during regular District workday hours. The notice shall provide the District information as to causes and corrective action being taken, with a schedule for return to required operating conditions. [District Rule 3.1, §405.3]

The Permit Holder shall firmly affix this permit to operate, an approved facsimile, or other approved identification bearing the permit number upon the facility, article, machine, equipment, or other contrivance in such a manner as to be clearly visible and accessible. In the event that the facility, article, machine, equipment, or other contrivance is so constructed or operated that the permit to operate cannot be so placed, the permit to operate shall be mounted so as to be clearly visible in an accessible place within 25 feet of the facility, article, machine, equipment, or other contrivance, or maintained readily available at all times on the operating premises. [District Rule 3.1, §408]

Commencing work or operation under this permit shall be deemed acceptance of all of the conditions so specified. [District Rule 3.1, §402]

The Permit Holder shall submit an annual throughput/production report at the end of each calendar year. This report is due no later than March 31 for the previous year. This report must include actual operating hours and actual amounts of materials processed (for materials that have process limits listed on the Permit to Operate). Each type of material and each type of process must be listed separately. [District Rule 3.1, §405.1]

This permit shall not be transferable, by operation of law or otherwise, from one location to another or from one piece of equipment to another. It shall be the transferee's responsibility to inform the District on assumption of ownership or operating control of any item under a permit from the District and for which a permit to operate will be required. For any such transfer as herein above described, said transferee shall submit an application for authorization in accordance with applicable District Rules. [District Rule 3.1, §304]

P-19-79(a6) Expanded Polystyrene (EPS) Block Molding Process

The negative pressure in the regrind area shall be maintained at a minimum of 0.007 inches water column while regrind processing is occurring. [District Rule 3.1, Section 402]

Access to the enclosed regrind area shall remain closed during routine operation. The regrind area shall comply with EPA method 204 for permanent

total enclosures (PTEs). The PTE shall be verified annually at the source test. [District Rule 3.1, §402]

The enclosed regrind area pressure shall be continuously monitored by a manometer gauge for negative pressure. The gauge shall be checked at least once per operating day, while regrind operation is occurring, and shall be recorded daily by facility personnel. [District Rule 3.1, §402]

The Permit Holder shall continuously and accurately monitor and record the VOC concentration, in parts per million (ppm), of the air flow at the inlet of the RTO. The ppm monitor shall be checked at least once per day to verify proper operation. [District Rule 3.1, §402]

The Permit Holder shall maintain records of the enclosed regrind area containment pressure logs and VOC ppm monitor output for a period of at least five years. The records shall be retained on site and shall be made available to District personnel upon request. [District Rule 3.1, §402]

The Permit Holder shall maintain records of all required monitoring logs, including excursions, both from electronic recorders and facility personnel logs, for a period of at least 5 years. These records shall be maintained on site and shall be made available to District personnel upon request. [District Rule 3.1, Section 402]

Upon an accumulation of all excursions exceeding 5 percent duration of the total EPS molding operating time, the Permit Holder shall submit a quality improvement plan (QIP) consistent with 40 CFR 64.8(b). [District Rule 3.1, Section 402]

P-82-96(t) Boiler

The permittee shall install and maintain such facilities as are necessary for sampling and testing purposes. The number, size, and location of sampling ports shall be in accordance with Air Resources Board Test Method 1. The location and access to the sampling platform shall be in accordance with the General Industry Safety Orders of the State of California. [District Rule 3.1, §303.2]

Either a tune-up or compliance source test is required annually. A compliance source test for NO_x and CO shall be performed triennially. The source test shall be conducted in accordance with an approved source test protocol. The source test protocol shall be submitted to the District two weeks prior to proposed test dates. Source test results shall be submitted to the District compliance staff within 60 days of the test date. [District Rule 3.1, §402]

P-59-93(t) Boiler

The permittee shall install and maintain such facilities as are necessary for sampling and testing purposes. The number, size, and location of sampling ports shall be in accordance with Air Resources Board Test Method 1. The

location and access to the sampling platform shall be in accordance with the General Industry Safety Orders of the State of California. [District Rule 3.1, §303.2]

The District must be notified prior to any compliance source test, and a source test plan must be submitted for approval 14 days prior to testing. The results of the source test shall be submitted to the District within 60 days of the test date. [District Rule 3.1, §402]

RULE 3.4 New Source Review (Revised 8/13/97)

Rule Description

This rule applies to all new stationary sources and emissions units and all modifications to existing stationary sources and emissions units which are subject to Rule 3.1, GENERAL PERMIT REQUIREMENTS, and which, after construction or modification, emit or may emit any affected pollutants. This rule shall not apply to prescribed burning of forest, agriculture or range land, road construction or any other non-point source common to timber harvesting or agricultural practices. The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

Compliance Status

The rule is applicable to all of the emission units at the facility. The source is currently in compliance with the rule. The version of the rule used in this evaluation is the rule adopted on December 11, 1996, and is part of the California SIP. These New Source Review requirements are contained in the most recent ATCs issued to the source and implemented into PTOs.

Permit Conditions

Modifications to this permit, as defined by District Rules and Regulations, requires prior District approval. A modification is defined as any physical change, change in method of operation, addition to or any change in hours of operation, or change in production rate, which: would necessitate a change in permit conditions; or is not specifically limited by a permit condition; or results in an increase in emissions not subject to an emissions limitation. [District Rule 3.4, §223]

P-19-79(a6) Expanded Polystyrene (EPS) Block Molding Process

VOC emissions shall not exceed 5,444.2 lb/day, 111,615 lb/1st calendar quarter, 111,615 lb/2nd calendar quarter, 111,615 lb/3rd calendar quarter, 111,615 lb/4th calendar quarter, and 175.00 tons/year. [District Rule 3.4/C-07-195]

CO emissions shall not exceed 8.1 lb/day, 726 lb/1st calendar quarter, 734 lb/2nd calendar quarter, 742 lb/3rd calendar quarter, 742 lb/4th calendar quarter, and 1.47 tons/year. [District Rule 3.4/C-07-195]

NOx emissions shall not exceed 9.6 lb/day, 864 lb/1st calendar quarter, 874 lb/2nd calendar quarter, 883 lb/3rd calendar quarter, 883 lb/4th calendar quarter, and 1.75 tons/year. [District Rule 3.4/C-07-195]

SOx emissions shall not exceed 0.1 lb/day, 5 lb/1st calendar quarter, 5 lb/2nd calendar quarter, 5 lb/3rd calendar quarter, 5 lb/4th calendar quarter, and 0.01 tons/year. [District Rules 2.12 and 3.4/C-07-195]

PM10 emissions shall not exceed 0.7 lb/day, 66 lb/1st calendar quarter, 66 lb/2nd calendar quarter, 67 lb/3rd calendar quarter, 67 lb/4th calendar quarter, and 0.13 tons/year. [District Rules 2.11, 2.19, and 3.4/C-07-195]

The maximum amount of natural gas consumed shall not exceed 0.096 million cubic feet/day, 8.64 million cubic feet/1st calendar quarter, 8.74 million cubic feet/2nd calendar quarter, 8.83 million cubic feet/3rd calendar quarter, 8.83 million cubic feet/4th calendar quarter, and 35.04 million cubic feet/year. [District Rule 3.4/C-07-195]

The maximum amount of VOC's emitted from the block molding process shall not exceed 2.64 tons/day, 55.81 tons/1st calendar quarter, 55.81 tons/2nd calendar quarter, 55.81 tons/3rd calendar quarter, 55.81 tons/4th calendar quarter, and 175.00 tons/year. [District Rule 3.4/C-07-195]

The manufacturer's Certificate of Analysis (COA) for pentane content of any EPS resin used shall not exceed 5.5% by weight. [District Rule 3.4/C-07-195]

EPS resins with a manufacturer's COA for pentane content greater than 4.6% by weight shall be aged in the aging bags for at least 12 hours after pre-expansion. [District Rule 3.4/C-07-195]

The Permit Holder shall determine compliance with the quarterly and yearly permitted emission limits using the following equation for each different resin used [District Rule 3.4/C-07-195]:

$$\sum(RU_i \times \%RC_i) - (RU_i \times \%RC_i \times \%TC \times \%CE \times \%DE) - (RU_i \times \%PR) = \text{lb VOC}$$

Where:

$$RU_i = \text{Total amount of each resin used (lb)}$$

- % RC_i = % pentane content of each resin used, based on the manufacturer's COA for each batch
- %TC = Total % pentane released which is available to be captured in process = calculated quarterly for material processed with the Idropress molds; 25.7% for material processed with the Geo Mold or Specialty Flootation Mold
- %CE = Capture efficiency = 90%
- %DE = Destruction efficiency = 97%
- %PR = % pentane residual (%PR) remaining in product during storage as calculated quarterly.

The control system shall have a capture efficiency of at least 90% by weight of the pentane released that is available for capture. Emissions from all pre-expansion, aging, and block molding equipment (except specialty flotation and geo tech molds) shall be captured. [District Rule 3.4/C-07-195]

The control system shall have a destruction efficiency of at least 97% by weight for the captured VOC emissions. [District Rule 3.4/C-07-195]

The quarterly %TC value shall be calculated using a calendar quarter average of the monthly sample results. [District Rule 3.4/C-07-195]

The quarterly %PR value shall be calculated using a calendar quarter average of the monthly sample results as follows [District Rule 3.4/C-07-195]:

- a. For product shipped off-site before 14 days from date of manufacture, if the calendar quarter average %PR remaining meets or exceeds 1.0%, a value of 1.0% shall be used in the compliance demonstration calculation for that calendar quarter. If the calendar quarter average %PR remaining for product shipped off-site before 14 days from date of manufacture is less than 1.0%, the calendar quarter average %PR remaining shall be used in the compliance demonstration calculation for that calendar quarter.
- b. For product shipped off-site between 14 and 30 days from date of manufacture, if the calendar quarter average %PR remaining meets or exceeds 0.5%, a value of 0.5% shall be used in the compliance demonstration calculation for that calendar quarter. If the calendar quarter average %PR remaining for product shipped off-site between 14 and 30 days is less than 0.5%, the calendar quarter average %PR remaining shall be used in the compliance demonstration calculation for that calendar quarter.
- c. For product shipped off-site greater than 30 days from date of manufacture, a value of 0% shall be used in the compliance demonstration calculation for that calendar quarter.

The District must be notified prior to any sampling event used for compliance with permit conditions, and a protocol must be submitted for approval 14 days prior to testing. The protocol for sampling events is subject to District approval. The results of a sampling event shall be submitted to the District within 60 days of the test date. [District Rule 3.4/C-07-195]

Access doors and windows to the enclosed aging area shall remain closed during routine operation. The aging room shall comply with EPA method 204 for permanent total enclosures. [District Rule 3.4/C-07-195]

The Permit Holder shall continuously monitor, and record at least every 15 minutes, the ambient temperature of the aging room. Each occurrence of a 15 minute temperature reading that is below the permitted threshold shall be considered non-compliance with the Permit. The data shall be recorded with an electronic data recorder. [District Rule 3.4/C-07-195]

The RTO and the associated collection system shall be operated at all times that product is being processed in any portion of the processing line, and at all times that there is product in the aging room. [District Rule 3.4/C-07-195]

The air flow at the inlet to the RTO shall be no less than 10,823 cfm and no more than 13,228 cfm, as read by the flow meter installed immediately upstream of the RTO. [District Rule 3.4/C-07-195]

The aging room shall be maintained at or above 72.2 degrees Fahrenheit at all times that there is product in the aging room. [District Rule 3.4/C-07-195]

Source testing that is representative of the daily process at the site to demonstrate initial and on-going compliance shall be conducted for the following [District Rule 3.4/C-07-195]:

- a. Source testing to demonstrate compliance with the capture efficiency in all controlled mold process equipment, RTO destruction efficiency, EPA method 204 for the aging room, and total % pentane available for capture in all controlled mold process equipment shall be conducted not less than once every 12 calendar months, as approved by the District;
- b. Source testing to demonstrate %PR remaining in product shall be conducted once per calendar month on each type (i.e. uncut block, unlaminated cut product, and laminated cut product) of finished product for both less than 14 days and between 14 and 30 days from date of product manufacture, as approved by the District;
- c. Source testing to demonstrate %TC, total % pentane released which is available to be captured in the process shall be conducted a minimum of once per calendar month on finished whole blocks, as approved by the District;

- d. Source testing of airflow through the control system shall be conducted as approved by the District.

All source tests shall be conducted in such a manner as to be representative of process operation and shall be in accordance with a source test protocol approved by the District. The source test protocol shall specify the methodology, equipment to be used for collection and analysis of the source test samples and locations of the testing. Source test protocols shall be submitted to the District for review and written approval 30 days prior to the proposed date of the source test. The Permit Holder shall notify the district in writing three days prior to each residual content and control system airflow test and submit residual content and airflow test results to the District within 14 days of test completion. [District Rule 3.4/C-07-195]

The capture efficiency, destruction efficiency, and total % pentane available for capture source tests shall be conducted by a CARB certified independent contractor and source test results shall be submitted to the District within 60 days after the test date. [District Rule 3.4/C-07-195]

The Permit Holder shall maintain the following records on a monthly basis [District Rule 3.4/C-07-195]:

- a. Throughput and initial pentane content (as determined by COA for each batch) of each EPS resin used;
- b. Throughput and initial pentane content of each EPS resin processed in the Geo Mold and Specialty Flotation Mold;
- c. %PR remaining in product used to calculate the calendar quarter average;
- d. %TC monthly results used to calculate the calendar quarter average;
- e. VOC emissions on a monthly, cumulative calendar quarter, and cumulative calendar year basis, including the backup calculations used to arrive at submitted numbers (in either paper or electronic form);
- f. Amount of time each batch of materials remain in the aging room;
- g. Amount of time each product remains on site.

The Permit Holder shall submit a summary of the above records within 60 days following each calendar quarter. The records shall be maintained at the facility, for a period of five years, and made available for District inspection upon request. [District Rule 3.4/C-07-195]

The Permit Holder shall maintain daily records of the aging room temperature recordings. The data shall not be averaged for recordkeeping or compliance purposes. These records shall be maintained at the facility, for a period of five years, and shall be made available for District inspection upon request. [District Rule 3.4/C-07-195]

P-82-96(t) Boiler

VOC emissions shall not exceed 0.5 lb/day, 34 lb/1st calendar quarter, 26 lb/2nd calendar quarter, 26 lb/3rd calendar quarter, 33 lb/4th calendar quarter, and 0.06 tons/year. [Rule 3.4/C-96-43]

CO emissions shall not exceed 44.4 lb/day, 4,000 lb/1st calendar quarter, 3,560 lb/2nd calendar quarter, 3,560 lb/3rd calendar quarter, 4,088 lb/4th calendar quarter, and 8.09 tons/year. [Rule 3.4/C-96-43]

NOx emissions shall not exceed 5.5 lb/day, 493 lb/1st calendar quarter, 440 lb/2nd calendar quarter, 440 lb/3rd calendar quarter, 504 lb/4th calendar quarter, and 1.00 tons/year. [District Rules 2.16 and 3.4/C-96-43]

SOx emissions shall not exceed 0.1 lb/day, 6 lb/1st calendar quarter, 4 lb/2nd calendar quarter, 4 lb/3rd calendar quarter, 6 lb/4th calendar quarter, and 0.01 tons/year. [District Rules 2.12, 2.16, and 3.4/C-96-43]

PM10 emissions shall not exceed 1.7 lb/day, 102 lb/1st calendar quarter, 44 lb/2nd calendar quarter, 44 lb/3rd calendar quarter, 59 lb/4th calendar quarter, and 0.18 tons/year. [District Rules 2.11, 2.16, and 3.4/C-96-43]

The maximum amount of natural gas fuel consumption rate shall not exceed 0.14 million cubic feet/day, 8.50 million cubic feet/1st calendar quarter, 6.60 million cubic feet/2nd calendar quarter, 6.60 million cubic feet/3rd calendar quarter, 8.30 million cubic feet/4th calendar quarter, and 30.00 million cubic feet/year. [Rule 3.4/C-96-43]

For the boiler operating under P-82-96(t), the permitted boiler shall not be fired on liquid fuel. [Rule 3.4/C-96-43]

P-59-93(t) Boiler

VOC emissions shall not exceed 0.9 lb/day, 53 lb/1st calendar quarter, 44 lb/2nd calendar quarter, 44 lb/3rd calendar quarter, 59 lb/4th calendar quarter, and 0.10 tons/year. [Rule 3.4/C-96-42]

CO emissions shall not exceed 103.8 lb/day, 9,341 lb/1st calendar quarter, 8,312 lb/2nd calendar quarter, 8,312 lb/3rd calendar quarter, 9,549 lb/4th calendar quarter, and 18.89 tons/year. [Rule 3.4/C-96-42]

NOx emissions shall not exceed 11.1 lb/day, 997 lb/1st calendar quarter, 889 lb/2nd calendar quarter, 889 lb/3rd calendar quarter, 1,019 lb/4th calendar quarter, and 2.02 tons/year. [District Rules 2.16 and 3.4/C-96-42]

SOx emissions shall not exceed 0.2 lb/day, 11 lb/1st calendar quarter, 9 lb/2nd calendar quarter, 9 lb/3rd calendar quarter, 12 lb/4th calendar quarter, and 0.02 tons/year. [District Rules 2.12, 2.16, and 3.4/C-96-42]

PM10 emissions shall not exceed 4.6 lb/day, 254 lb/1st calendar quarter, 211 lb/2nd calendar quarter, 211 lb/3rd calendar quarter, 284 lb/4th calendar quarter, and 0.48 tons/year. [District Rules 2.11, 2.16, and 3.4/C-96-42]

The maximum amount of natural gas fuel consumption rate shall not exceed 0.33 million cubic feet/day, 18.50 million cubic feet/1st calendar quarter, 15.40 million cubic feet/2nd calendar quarter, 15.40 million cubic feet/3rd calendar quarter, 20.70 million cubic feet/4th calendar quarter, and 70.00 million cubic feet/year. [Rule 3.4/C-96-42]

RULE 3.8 Federal Operating Permits (Revised 4/11/01)

Rule Description

This Rule implements the requirements of Title V of the Federal Clean Air Act as amended in 1990 (CAA) for permits to operate. Title V provides for the establishment of operating permit programs for sources which emit regulated air pollutants, including attainment and non-attainment pollutants.

Compliance Status

The source has submitted a timely and complete Title V application and is currently operating under an extended federal operating permit.

Permit Conditions

Right of Entry:

The permit shall require that the source allow the entry of the District, ARB, or U.S. EPA officials for the purpose of inspection and sampling, including:

- a. Inspection of the stationary source, including equipment, work practices, operations, and emissions-related activity;
- b. Inspection and duplication of records required by the permit to operate; and
- c. Source sampling or other monitoring activities. [District Rule 3.8, §302.10]

Compliance with Permit Conditions:

The permittee shall comply with all Title V permit conditions. [District Rule 3.8, §302.11a]

The permit does not convey property rights or exclusive privilege of any sort. [District Rule 3.8, §302.11b]

Non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal. [District Rule 3.8, §302.11c]

The permittee shall not use the "need to halt or reduce a permitted activity in order to maintain compliance" as a defense for non-compliance with any permit condition. [District Rule 3.8, §302.11d]

A pending permit action or notification of anticipated non-compliance does not stay any permit condition. [District Rule 3.8, §302.11e]

Within a reasonable time period, the permittee shall furnish any information requested by the APCO, in writing, for the purpose of determining:

- a. Compliance with the permit; or
- b. Whether or not cause exists for a permit or enforcement action. [District Rule 3.8, §302.11f]

Emergency Provisions:

Within two weeks of an emergency event, the owner or operator shall submit to the District a properly signed contemporaneous log or other relevant evidence demonstrating that:

- (i) An emergency occurred;
- (ii) The permittee can identify the cause(s) of the emergency;
- (iii) The facility was being properly operated at the time of the emergency;
- (iv) All steps were taken to minimize the emissions resulting from the emergency; and
- (v) Within two working days of the emergency event, the permittee provided the District with a description of the emergency and any mitigating or corrective actions taken; and

In any enforcement proceeding, the permittee has the burden of proof for establishing that an emergency occurred. [District Rule 3.8, §302.12]

Severability

If any provision, clause, sentence, paragraph, section or part of these conditions for any reason is judged to be unconstitutional or invalid, such judgement shall not affect or invalidate the remainder of these conditions. [District Rule 3.8, §302.13]

Compliance Certification

The responsible official shall submit a compliance certification to the U.S. EPA and the APCO every 12 months unless required more frequently by an applicable requirement. The twelve (12) month period will begin on the date that the Title V permit was originally issued, and will be due within thirty (30) days after the end of the reporting period, unless otherwise approved in writing by the District. All compliance reports and other documents required to be submitted to the District by the responsible official shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [District Rule 3.8, §302.14a]

The compliance certification shall identify the basis for each permit term or condition (e.g., specify the emissions limitation, standard, or work practice) and a means of monitoring compliance with the term or condition consistent with Sections 302.5, 302.6, and 302.7 of Rule 3.8. [District Rule 3.8, §302.14b]

The compliance certification shall include a statement of the compliance status, whether compliance was continuous or intermittent, and method(s) used to determine compliance for the current time period and over the entire reporting period. [District Rule 3.8, §302.14c]

The compliance certification shall include any additional inspection, monitoring, or entry requirement that may be promulgated pursuant to Sections 114(a) and 504(b) of the Federal Clean Air Act. [District Rule 3.8, §302.14d]

Permit Life:

The Title V permit shall expire five years from the date of issuance. Title V permit expiration terminates the stationary source's right to operate unless a timely and complete Title V permit application for renewal has been submitted. [District Rule 3.8, §302.15]

Payment of Fees:

An owner or operator shall pay the appropriate Title V permit fees on schedule. If fees are not paid on schedule, the permit is forfeited. Operation without a permit subjects the source to potential enforcement action by the District and the U.S. EPA pursuant to Section 502(a) of the CAA. [District Rule 3.8, §302.16]

Permit Revision Exemption:

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in the permit. [District Rule 3.8 §302.22]

Application Requirements:

An owner or operator shall submit a standard District application for renewal of the Title V permit, no earlier than 18 months and no later than six months before the expiration date of the current permit to operate. [District Rule 3.8, §402.2]

An owner or operator shall submit a standard District application for each emissions unit affected by a proposed permit revision that qualifies as a significant Title V permit modification. The application shall be submitted after obtaining any required preconstruction permits. Upon request by the APCO, the owner or operator shall submit copies of the latest preconstruction permit for each affected emissions unit. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. [District Rule 3.8, §402.3]

An owner or operator shall submit a standard District application for each emissions unit affected by the proposed permit revision that qualifies as a minor permit modification. The application shall be submitted after obtaining any required preconstruction permits. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. In the application, the owner or operator shall include the following:

- a. A description of the proposed permit revision, any change in emissions, and additional applicable federal requirements that will apply;
- b. Proposed permit terms and conditions; and
- c. A certification by a responsible official that the permit revision meets criteria for use of minor permit modification procedures and a request that such procedures be used. [District Rule 3.8, §402.4]

Permit Reopening for Cause:

Circumstances that are cause for reopening and revision of a permit include, but are not limited to, the following:

- a. The need to correct a material mistake or inaccurate statement;
- b. The need to revise or revoke a permit to operate to assure compliance with applicable federal requirements;
- c. The need to incorporate any new, revised, or additional applicable federal requirements, if the remaining authorized life of the permit is 3 years or greater, no later than 18 months after the promulgation of such requirement (where less than 3 years remain in the authorized life of the permit, the APCO shall incorporate the requirements into the permit to operate upon renewal); or
- d. Additional requirements promulgated pursuant to Title IV as they become applicable to any acid rain unit governed by the permit. [District Rule 3.8, §413.1]

Monitoring, Testing and Analysis:

No permit conditions are required. All compliance assurance monitoring (CAM) conditions are discussed below under the section addressing 40 CFR 64.

Recordkeeping:

The permit holder shall record maintenance of all monitoring and support information required by any applicable federal requirement, including:

- (i) Date, place, and time of sampling;
- (ii) Operating conditions at the time of sampling;
- (iii) Date, place, and method of analysis; and
- (iv) Results of the analysis. [District Rule 3.8, §302.6a]

The permit holder shall retain records of all required monitoring data and support information for a period of at least five years from the date of sample collection, measurement, report, or application. [District Rule 3.8, §302.6b]

Reporting Requirements:

Any deviation from permit requirements, including that attributable to upset conditions (as defined in the permit), shall be promptly reported to the APCO. For the purpose of this condition prompt means as soon as reasonably possible, but no later than 10 days after detection.[District Rule 3.8, §302.7a]

A semi-annual monitoring report shall be submitted at least every six (6) consecutive calendar months and shall identify any deviation from permit requirements, including that previously reported to the APCO pursuant to Section 302.7(a) of Rule 3.8. The six (6) month period will begin on the date that the Title V permit was originally issued, and will be due within thirty (30) days after the end of the reporting period, unless otherwise approved in writing by the District. [District Rule 3.8, §302.7b]

All reports of deviation from permit requirements shall include the probable cause of the deviation and any preventive or corrective action taken. [District Rule 3.8, §302.7c]

Each monitoring report shall be accompanied by a written statement from the responsible official that certifies the truth, accuracy, and completeness of the report. [District Rule 3.8, §302.7e]

40 CFR Part 60, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units

Rule Description

This subpart contains emission guidelines and monitoring requirements for electric utility steam generating units.

Compliance Status

This subpart is applicable to electric utility steam generating units that are capable of combusting more than 250 million Btu/hour of fossil fuel (either alone or in combination with any other fuel). All of the steam generating units at the facility are limited by permit condition to burn less than 250 million Btu/hour of natural gas. This subpart is not applicable to any units at the source.

Permit Conditions

No permit conditions are required.

40 CFR Part 60, Subpart Db - Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units

Rule Description

This subpart contains emission guidelines and monitoring requirements for industrial, commercial, institutional steam generating units.

Compliance Status

This subpart is applicable to steam generators with a heat input capacity over 100 million Btu/hour and was constructed or modified after June 19, 1984. All of the steam generating units at the facility are limited by permit condition to burn less than 100 million Btu/hour of natural gas. This subpart is not applicable to any units at the source.

Permit Conditions

No permit conditions are required.

40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial, Commercial, Institutional Steam Generating Units

Rule Description

This subpart contains emission guidelines and monitoring requirements for small industrial, commercial, institutional steam generating units.

Compliance Status for P-59-93(t)

This subpart is applicable to industrial, commercial, and institutional steam generators between 10 million Btu/hour and 100 million Btu/hour for which construction, modification, or reconstruction is commenced after June 9, 1989. The boiler listed on permit P-59-93(t) is subject to this subpart. This boiler is limited by permit condition to burning natural gas only and is therefore only subject to the following reporting and record keeping requirements. The source is currently in compliance with the subpart.

Permit Conditions

The owner or operator shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup. This notification shall include the design heat input capacity of the affected facility and identification of fuels to be combusted. [40 CFR Part 60 Subpart Dc §60.48c(a)]

The owner or operator shall record and maintain records of the amounts of fuel combusted during each day. If requested by the permittee and agreed to in writing by the District and EPA Region 9, fuel usage may be recorded on a monthly basis. [40 CFR Part 60 Subpart Dc §60.48c(g)]

40 CFR Part 64 - Compliance Assurance Monitoring (CAM)

Rule Description

This subpart provides guidelines for developing a compliance assurance monitoring (CAM) plan. This plan is a way to ensure that facilities will monitor the appropriate parameters, relating to emissions and control equipment, to ensure that compliance is maintained on an ongoing basis.

Compliance Status

This subpart is applicable to facilities with an emissions unit that is subject to an emission limitation or standard for a pollutant where the unit uses an add-on control device to achieve compliance with the emission limitation, and the unit has a pre-control device potential to emit that is equal to or greater than the major source threshold for that pollutant. This subpart is applicable to one operation for one pollutant at this source.

The compliance assurance monitoring plan was completed during a significant modification to the Title V permit to operate effective on June 26, 2006. There have been no significant modifications to any of the facility's permits since then, therefore the plan has not been changed. The current plan and justification are discussed below.

The only pollutant at this facility that is greater than the major source threshold is VOC. The block processing line consists of two raw material bins, two fluid bed dryers (pre-expanders), two block molds, and one aging room for aging bead. Each of these areas has either direct collection of VOCs, routed to the RTO, or they have a pickup point that captures a large portion of the VOCs which are then routed to the RTO. The block storage emissions that occur in the warehouse are not routed to the RTO. The equation for calculating actual emissions (cited under District Rule 3.4) takes this into account.

The pre-control device potential to emit for the block manufacturing operation is 331.6 tons/year. The controlled emissions are 175.0 tons/year. The unit is

subject to the 175.0 ton emission limitation by a New Source Review permit condition, the unit uses a control device to achieve compliance with this permit condition, and the unit has a pre-control device potential to emit above the major source threshold for VOC. Therefore, this subpart is applicable to the block molding operation at this facility.

The facility is required to continuously monitor and record (every 15 minutes) the aging room negative pressure, the RTO combustion chamber temperature, the main bypass damper valve position, the RTO inlet flow rate, and the surge tank negative pressure. The facility is also required to perform annual source testing using a District-approved method to verify that the minimum 97% destruction efficiency and 90% collection efficiency is accomplished. The facility is required to perform daily inspections of the RTO system integrity, including wear, corrosion, and damage. The facility is also required to do weekly visual inspections of various vents and ducts, including the RTO inlet ducts, block mold exhaust systems, mixing station bags, surge tank exhaust system, pre-expander vessel vent ducts, fluidized bed dryer hoods and ducts, material transfer blower ducts, bead hopper duct, aging room containment integrity and emergency vent system.

There are three design criteria conditions and four performance criteria conditions listed under section 64.3 of the subpart (monitoring and design criteria) that must be met by the CAM plan.

Design Criteria

1. The first design criteria is that the monitoring system must be designed to obtain data for one or more indicators of emissions control performance for the control device. As described above, the facility is required to continuously monitor multiple critical points in the system to ensure proper collection and control of the system. The facility is also required to do a VOC collection and destruction efficiency test every year to verify compliance with the permitted control efficiencies. The facility monitors the aging room to ensure that it continues to meet the definition of a permanent total enclosure. These items meet the requirement that the monitoring system obtain data for one or more indicators of emissions control performance.
2. The second design criteria is that the facility establish appropriate ranges or designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations for the anticipated range of operating conditions. The facility must show that the selected indicators show a reasonable assurance of compliance with the 97% destruction efficiency requirement and the 90% capture efficiency requirement.
 - a. The most important set point to assure destruction efficiency is the RTO minimum operating temperature. There is a condition setting

the RTO minimum temperature at 1400 degrees F. The facility is required to continuously monitor and record results at 15 minute intervals for this point to show compliance with this temperature threshold and an alarm sounds if the temperature falls below the specified set point. The exceptions to this are during start up and shut down procedures. The facility will be required to keep records from this continuous temperature recorder.

- b. There are several points monitored to ensure compliance with the capture efficiency requirement.
 - i. The RTO inlet flow rate is indicative of the total collection system flow rate and is monitored continuously and recorded at 15 minute intervals on a data logger. The RTO inlet flow rate is required to be between 10,823 and 13,228.
 - ii. The negative pressure at the surge tank is also continuously monitored and recorded by a data logger at 15 minute intervals. This measurement is indicative of capture system operation from the “wet” side of collection, including block mold vacuum system exhaust, block mold fill blower exhaust and pre-expander exhaust.
 - iii. The negative pressure at the bag room is continuously monitored and recorded at 15 minute intervals on a data logger. This measurement is indicative of capture at the bag room, which includes emissions from the bags containing aging beads, and also all other “dry” branches that are routed to the bag room, including the fluidized bed dryers and the virgin material storage. The requirement for the bag room negative pressure is more than 0.007 inches water column negative pressure to ensure that the bag room is operated as a PTE, in accordance with EPA Method 204. The bag rooms doors are monitored daily by facility personnel to determine that the doors remain closed, except when personnel are entering or exiting the bag room. This is to ensure that the bag room enclosure is maintained as a PTE.
 - iv. There are also several points that are monitored to ensure that there is not a system bypass of the control system. The main bypass damper valve position is continuously monitored and recorded when improper valve (open or partially open) position is detected. This ensures that the RTO is not being bypassed during normal operations. An alarm will sound if improper valve position is detected. The emergency vent system on the bag room is also monitored for a bypass situation. The emergency vent is required to

ensure a fire hazard does not occur in the bag room. Both the vent valve and the exhaust blower are monitored for on/open positions and will be logged by a data logger when an improper instance occurs. An alarm will also sound if this situation occurs.

- c. The facility performs several system integrity checks to ensure that the integrity of the RTO and the collection system is maintained. The RTO itself is checked daily and logged by facility personnel. The check includes general wear, corrosion, and damage in accordance with manufacturer's guidelines. The RTO inlet duct system integrity is inspected and logged weekly by facility personnel. This includes all ductwork, fittings, and valves are checked for leakage, integrity, damage, and functionality. The block mold collection system components, including the vacuum exhaust system, fill blower exhaust system, and virgin mixing station bags, are inspected and logged weekly by facility personnel. This includes all ductwork, fittings, and valves are inspected for leakage, integrity, damage, and functionality. The pre-expander collection system is inspected and logged weekly by facility personnel, including the pre-expander cannister vent duct, the fluidized bed dryer hood and ducts, the take-away blower duct, and the bead hopper duct. This includes all ductwork, fittings, and valves to be inspected for leakage, integrity, damage, and functionality. The bag room containment integrity is checked and logged weekly to ensure that the PTE of the bag room is maintained. This includes checking for structural integrity.
3. The third design criteria requires that the design of indicator ranges may be based on a single maximum or minimum value, expressed as a function of process variables, expressed as maintaining the applicable parameter in a particular operational status or designated condition, or established as interdependent between more than one indicator. This criteria is met because the indicator values are based on a single minimum value that has either already been determined.

Performance Criteria

1. The first performance criteria that must be met is specifications that provide for obtaining data that are representative of the emissions or parameters being monitored. The system was installed according to manufacturers specifications because the manufacturer installed it themselves. The temperature, flow, and negative pressure indicator locations were installed on site by the manufacturer and checked during start up by District personnel. This criteria has been met.
2. The second performance criteria that must be met is that verification procedures must be conducted to confirm the operational status of the

monitoring and should be done according to the manufacturers requirements or recommendations for installation, calibration, and start up operation. This criteria is met because the manufacturer verified the temperature, flow, and monitoring devices prior to start up and the devices are also verified during the source tests that are conducted every year. This criteria has been met.

3. The third performance criteria that must be met is that quality assurance and control practices must be in place that are adequate to ensure the continuing validity of the data. There is a condition requiring that RTO temperature, RTO main bypass alarm, and RTO inlet flow be verified annually during the source test. All negative pressure measurement equipment will be calibrated annually in accordance with manufacturer's specifications. All facility inspection logs are verified at least annually by District personnel. This criteria will be met.
4. The fourth performance criteria that must be met is that specifications for the frequency of conducting the monitoring and data collecting procedures must be in place. The monitoring frequency for all devices connected to a data logger is continuous, while the data collection is only done at 15 minute intervals for temperature, flow, and negative pressure measurements, and as occurred for all open/closed or on/off type measurements for bypass monitoring. All other inspections done by facility personnel are logged either daily or weekly, as discussed above. The data collected by the data loggers includes at least the date, time, and measurement. This criteria has been met.

Permit Conditions

The following conditions have been required under either District Rule 3.1 or District Rule 3.4, New Source Review. These conditions have already been covered under the applicable District Rule, but are shown again below because they also satisfy particular CAM requirements:

Source testing that is representative of the daily process at the site to demonstrate initial and on-going compliance shall be conducted for the following [District Rule 3.4 & 40 CFR 64]:

- a. Source testing to demonstrate compliance with the capture efficiency in all controlled mold process equipment, RTO destruction efficiency, EPA method 204 for the aging room, and total % pentane available for capture in all controlled mold process equipment shall be conducted not less than once every 12 calendar months, as approved by the District;
- b. Source testing to demonstrate %PR remaining in product shall be conducted once per calendar month on each type (i.e. uncut block, unlaminated cut product, and laminated cut product) of finished product

for both less than 14 days and between 14 and 30 days from date of product manufacture, as approved by the District;

- c. Source testing to demonstrate %TC, total % pentane released which is available to be captured in the process shall be conducted a minimum of once per calendar month on finished whole blocks, as approved by the District;
- d. Source testing of airflow through the control system shall be conducted as approved by the District.

All source tests shall be conducted in such a manner as to be representative of process operation and shall be in accordance with a source test protocol approved by the District. The source test protocol shall specify the methodology, equipment to be used for collection and analysis of the source test samples and locations of the testing. Source test protocols shall be submitted to the District for review and written approval 30 days prior to the proposed date of the source test. The Permit Holder shall notify the District in writing three days prior to each residual content and control system airflow test and submit residual content and airflow test results to the District within 14 days of test completion. [District Rule 3.4 & 40 CFR 64]

Access doors and windows to the enclosed aging area shall remain closed during routine operation. The aging room shall comply with EPA method 204 for permanent total enclosures. [District Rule 3.4 & 40 CFR 64]

The RTO and the associated collection system shall be operated at all times that product is being processed in any portion of the processing line, and at all times that there is product in the aging room. [District Rule 3.4 & 40 CFR 64]

The capture efficiency, destruction efficiency, and total % pentane available for capture source tests shall be conducted by a CARB certified independent contractor and source test results shall be submitted to the District within 30 days after the test date. [District Rule 3.4 & 40 CFR 64]

The following conditions have not been required by any other District rules, but are required under 40 CFR 64 specifically to ensure compliance with the CAM plan submitted by the source:

The RTO combustion chamber shall operate at a minimum temperature of 1400° F, or as determined by the initial source test. [40 CFR 64]

The Permit Holder shall continuously monitor and record the RTO combustion chamber temperature. The data shall be recorded with an electronic data recorder. The data values shall be averaged hourly for determination of an excursion. [40 CFR 64]

The RTO system inlet valve shall remain open at all times and the system bypass valve shall remain closed at all times that processing is occurring or bead is stored in the bag room. [40 CFR 64]

The Permit Holder shall continuously monitor, and record upon occurrence of improper operation, the status of the RTO main bypass inlet valve and the bypass valve. The data shall be recorded with an electronic data recorder. Each improper operational occurrence is an excursion. [40 CFR 64]

The Permit Holder shall continuously monitor, and record at least every 15 minutes, the RTO inlet flow rate. The data shall be recorded with an electronic data recorder. The data values shall be averaged hourly for determination of an excursion. [40 CFR 64]

The surge/condensate tank pressure shall be maintained at either negative or atmospheric pressure. [40 CFR 64]

The Permit Holder shall continuously monitor, and record at least every 15 minutes, the surge/condensate tank pressure. The data shall be recorded with an electronic data recorder. The data values shall be averaged hourly for determination of an excursion. [40 CFR 64]

The negative pressure in the bag room shall be maintained at a minimum of 0.007 inches water column while bead processing is occurring and while any bead is undergoing aging in the bag room. [40 CFR 64]

The Permit Holder shall continuously monitor, and record at least every 15 minutes, the bag room pressure. The data shall be recorded with an electronic data recorder. The data values shall be averaged hourly for determination of an excursion. [40 CFR 64]

The bag room vent valve shall remain closed at all times and the bag room exhaust blower shall remain off at all times, except when the lower explosive limit (LEL) reaches unsafe conditions in the bag room. [40 CFR 64]

The Permit Holder shall continuously monitor, and record upon occurrence of operation, the status of the bag room vent valve and the bag room exhaust blower. The data shall be recorded with an electronic data recorder. Each improper operational occurrence is an excursion. [40 CFR 64]

The Permit Holder shall inspect the RTO system integrity daily for general wear, corrosion, and damage. These inspections shall be logged daily by facility personnel. [40 CFR 64]

The Permit Holder shall inspect the RTO inlet duct system, including all ductwork, fittings, and valves, weekly for leakage, integrity, corrosion, and

damage. These inspections shall be logged weekly by facility personnel. [40 CFR 64]

The Permit Holder shall inspect the block mold collection system integrity, including all ductwork, bags, fittings, and valves, weekly for leakage, integrity, corrosion, and damage. These inspections shall be logged weekly by facility personnel. [40 CFR 64]

The Permit Holder shall inspect the pre-expander collection system, including all ductwork, bags, fittings, and valves, weekly for leakage, integrity, corrosion, and damage. These inspections shall be logged weekly by facility personnel. [40 CFR 64]

The Permit Holder shall inspect the bag room containment daily to ensure that all doors are closed except while personnel are entering or exiting the enclosure. These inspections shall be logged daily by facility personnel. [40 CFR 64]

The Permit Holder shall inspect the bag room containment, including all structural portions, natural draft openings, and doors, weekly for integrity, corrosion, and damage. These inspections shall be logged weekly by facility personnel. [40 CFR 64]

The RTO combustion chamber thermocouple and alarm shall be verified annually during the source test. The thermocouple shall read +/- 30 degrees F of the test measurement device. The alarm shall sound while the combustion chamber temperature is less than 1400 degrees F (or as determined by the initial source test). [40 CFR 64]

The RTO inlet flow meter shall be verified annually during the source test. The facility flow measurement shall read within 5% of the test measurement device. [40 CFR 64]

The surge/condensate tank pressure transducer and the bag room pressure transducer shall each be calibrated annually in accordance with the manufacturer's specifications. [40 CFR 64]

The Permit Holder shall maintain records of all required monitoring logs, including excursions, both from electronic recorders and facility personnel logs, for a period of at least 5 years. These records shall be maintained on site and shall be made available to District personnel upon request. [40 CFR 64]

Upon an accumulation of all excursions exceeding 5 percent duration of the total EPS molding operating time, the Permit Holder shall submit a quality improvement plan (QIP) consistent with 40 CFR 64.8(b). [40 CFR 64]

