Bay Area Air Quality Management District

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Permit Evaluation
and
Statement of Basis
for
RENEWAL of

MAJOR FACILITY REVIEW PERMIT

for

Rexam Beverage Can Company
Facility #A1665

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Fairfield, CA 94533

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Application: 20793

TABLE OF CONTENTS

Title V Statement of Basis

A. Background

Rexam Beverage Can Company (Rexam; formerly American National Can Company) is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it had the "potential to emit" 10 tons or more per year of "glycol ethers", a class of organic compounds listed as hazardous air pollutants (HAPs) in Section 112(b) of the Clean Air Act.

Glycol ethers make up a substantial portion of the organic solvent used in the beverage can coatings applied at this facility. Approximately 98 percent of all glycol ethers used at Rexam is in the form of Ethylene Glycol Monobutyl Ether (EGBE) (2-Butoxyethanol) (CAS No. 111-76-2). On November 21, 2003, the EPA proposed to remove EGBE from the group of glycol ethers listed as HAPs. On November 29, 2004 this proposal was made final. Based on this action, Rexam may choose to leave the Title V program by accepting a Synthetic Minor Operating Permit from the BAAQMD. At this time however, Rexam is still under the Title V permitting program.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

Pursuant to Regulation 2, Rule 6, section 416, the District has reviewed the terms and conditions of this Major Facility Review permit and determined that they are still valid and correct. This review included an analysis of applicability determinations for all sources, including those that have been modified or permitted since the issuance of the initial Major Facility Review Permit. The review also included an assessment of all monitoring in the permit for sufficiency to determine compliance.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility site identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A1665.

Title V Permitting History

Initial Title V Permit (1999):

The District issued the initial Title V permit to Rexam Beverage Can Company on July 28, 1999.

Administrative Amendment (2003):

On February 19, 2003 the District issued an administrative amendment to the permit to change facility name from American National Can to Rexam Beverage Can Company.

Title V Permit Renewal (2005):

On June 27, 2005 the District issued a renewal of Title V permit per Application # 8913.

Minor Permit Revision (2006)

On August 16, 2006 the District issued a Minor Revision of Title V permit per Application # 1189.The revision was to lower incinerator temperature requirement from 1450 to 1375 degree F based on source test results.

Application for Title V Minor Permit revision (2009):

Rexam submitted an application # 19912 on February 11, 2009 for minor revision of the Title V permit. The revision was to add an emergency diesel fire pump and replacement of an abatement incinerator by a regenerative thermal oxidizer. This action will be incorporated in the renewal application.

Application for Title V Permit Renewal (2009):

Rexam submitted an application # 20793 on July 7, 2009 for renewal of the Title V permit. Although the current permit expired on May 31, 2010, it continues in force until the District takes final action on the permit renewal.

The District has made updates and corrections to the permit as appropriate to update the text to the current standards and to correct outdated or erroneous information. All permit revisions are clearly shown in strikeout and underline formatting in the proposed renewal permit.

B. Facility Description

Rexam Beverage Can Company is engaged solely in the manufacture of two-piece aluminum beverage cans. Sheet aluminum is uncoiled and fed into a cupper which stamps the metal into cups 3" in diameter by 2.5" tall. The "cups" are then sent to a body maker, where they are drawn and ironed to the desired can height. At this point, the tops of the cans are trimmed to provide a smooth surface for attaching the top of the can.

The permitted equipment at the facility consists of various coating application lines, bake ovens, coating storage tanks, a scrap collection system, and a lime silo, which stores lime used in the can washing process. The aluminum can extrusion and shaping operations are exempt from permitting. Emissions from the facility are primarily VOC. VOC emissions from all coating operations are abated by a regenerative thermal oxidizer.

There has been no significant change in emissions due to the modification of the existing sources, and addition of new sources after the issuance of the last Title V permit renewal.

Following is a description of the sources at the facility:

S-1 Coater Line 1
S-2 Coater Oven, Line 1
S-3 Printer, Line 1
S-4 Printer Oven, 1200 Cpm
S-5 Spray Machines, Line 1
S-6 Bake Oven, Line 1
S-7 Coater, Line 2
S-8 Coater Oven, Line 2
S-9 Printer, Line 2
S-10 Printer Oven, Line 2, 1200 Cpm
S-11 Spray Machines, Line 2
S-12 Bake Oven, Line 2
S-13 Basecoat Bulk Tank
S-14 Overvarnish Bulk Tank
S-15 Inside Spray Bulk Tank
S-16 Scrap Collection
S-17 Lime Silo
S-21 Emergency Diesel Fire Pump Engine

Abatement Devices:

A-2 Baghouse
A-6 Scrap Cyclone
A-7 Oil Mist Collector
A-8 Baghouse for Lime Silo
A-9 Regenerative Thermal Oxidizer

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order that they are presented in the permit. Changes to the standard permit text have been made since the initial Title V Permit for this site was issued. These changes are reflected in the new proposed permit in strikeout/underline format.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit. If the Title IV (Acid Rain)

requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. This permit does not include Title IV or accidental release provisions.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes to permit:

- The dates of adoption and approval of rules in Standard Condition 1.A will be updated.
- BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants, and SIP Regulation 2, Rule 6 - Permits, Major Facility Review will be added to Standard Condition 1.A.
- Standard Condition I.B.12, which holds the permit holder responsible for compliance, certification of compliance, etc., will be added to conform to Regulation 2- 6-307.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S-1).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302. There are 17 permitted sources.

Significant sources are those sources that have a potential to emit of more than 2 tons of a "regulated air pollutant," as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a "hazardous air pollutant," as defined in BAAQMD Rule 2-6-210, per year. There are no significant sources.

The permit lists all abatement (control) devices that control permitted or significant sources at the facility. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-2). An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District's regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

There are no differences between the equipment list in the permit and the equipment list in the original Title V permit application.

Changes to permit:

- A new source, S-21, Emergency Diesel Fire Pump Engine, will be added.
- Abatement device, A-1, Direct Flame Afterburner, will be deleted.
- A new abatement device, A-9, Regenerative Thermal Oxidizer, will be added.
- Applicable requirements in Table II B will be updated.

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered "significant sources" as defined in BAAQMD Rule 2-6-239.

Changes to permit:

- The dates of adoption or approval of the rules and their "federal enforceability" status in Table III will be updated.
- Table III will be updated to add rules and standards to conform to current practice. In addition, generally applicable requirements that were overlooked in the initial Title V permit will be added. The following rules and standards will be added to Table III:
    - SIP Regulation 2-1-429, Federal Emissions Statement
    - BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
    - BAAQMD Regulation 4, Air pollution Episode Plan
    - SIP Regulation 4, Air pollution Episode Plan
    - BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements
    - SIP Regulation 6, Particulate Matter and Visible Emissions
    - SIP Regulation 8, Rule 2, Organic Compounds - Miscellaneous Operations
    - BAAQMD Regulation 8, Rule 3, Organic Compounds – Architectural Coatings
    - California Health and Safety Code Title 17, Section 93115, Airborne Toxic Control Measures for Stationary Compression Ignition Engines
    - California Health and Safety Code Title 17, Section 93116, Airborne Toxic Control Measures for Diesel Particulate Matter from Portable Engines rated at 50 Horsepower and greater
    - 40 CFR Part 61, Subpart M, National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (7/20/04)
    - EPA Regulation 40 CFR 82, Protection of Stratospheric Ozone (4/13/05)

Subpart F, 40 CFR 82.156, Recycling and Emissions Reductions – Required Practices
Subpart F, 40 CFR 82.161, Recycling and Emissions Reductions – Technician Certification
Subpart F, 40 CFR 82.166, Recycling and Emissions Reductions – Reporting and Recordkeeping Requirements

- Table III will be updated by deleting the following rules:
  - California Health and Safety Code Title 17, Subchapter 10, Article 2, Sections 95100 through 95109, Mandatory Greenhouse Gas Emissions Reporting
  - EPA Regulation 40 CFR Part 98, Mandatory Greenhouse Gas Reporting

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

1. District Rules
2. SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. SIP rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.
3. Other District requirements, such as the Manual of Procedures, as appropriate.
4. Federal requirements (other than SIP provisions)
5. BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
6. Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Complex Applicability Determinations

New Source Performance Standards (NSPS):

S-1 through S-12 (Coaters, printers, spray machines, ovens)

The coating, printing, and spray lines consisting of sources, S-1 through S-12, are subject to the "General Provisions" requirements in 40 CFR 60, Subpart A which provides the general regulatory framework for NSPS regulations.

They are subject to the VOC limit requirements contained in 40 CFR, Subpart WW "Standards of Performance for the Beverage Can Surface Coating Industry".

National Emission Standards for Hazardous Air Pollutants (NESHAPs):

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) for the "Surface Coating of Metal Cans was adopted on 11/13/03. It applies to all metal can coating facilities that emit or have the potential to emit any single hazardous air pollutant (HAP) at a rate of 10 tons or more per year or any combination of HAPs at a rate of 25 tons or more per year.

As previously discussed, the EPA removed Ethylene Glycol Monobutyl Ether from the list of HAPs on November 29, 2004. Therefore, Rexam is no longer a major source of HAPs so they are not subject to the NESHAP.

HAP emissions that result from operation of the diesel fire pump engine (S-21), are insignificant.

40 CFR 63, Subpart ZZZZ

The emergency diesel-engine generator, S-1, is subject to subpart ZZZZ which establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

The facility is not a major source of HAP, therefore the emergency diesel fire pump engine, S-21, is considered an area source of HAP emissions for the purposes of Subpart ZZZZ. The applicable requirements will be incorporated in the source-specific Table IV-J.

Protection of Stratospheric Ozone:

The requirements of 40 CFR 82 (Protection of Stratospheric Ozone) apply to the refrigerants used in cooling systems, and will be incorporated in Table III of the Title V permit (Generally Applicable Requirements).

40 CFR Part 64

Compliance Assurance Monitoring (CAM)

A pollutant-specific emissions unit (unit) at a major source that is required to obtain a permit pursuant to part 70 (state operating permit) or part 71 (federal operating permit) of Volume 40 of the Code of Federal Regulations is subject to CAM if the unit satisfies all of the following criteria outlined in 40 CFR 64.2 (a)(1) through (a)(3):

- The unit is subject to an emission limit/standard for the applicable regulated air pollutant; and
- The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100% of the amount, in tons per year, required for a source to be classified as a major source.

S-1 through S-12 (Coaters, printers, spray machines, ovens)

The coating, printing, and spray lines consisting of sources, S-1 through S-12, are abated for VOC emissions by a thermal oxidizer, A-9. The facility, including these sources, is subject to a VOC emission limit of 39.2 tons per year. Each source (unit) has a potential pre-control device emissions of VOC less than 100 tons per year as demonstrated below, and HAP emissions are less than 10 tons per year for any single HAP and 25 tons per year for any combinations of HAPs as discussed in NESHAPS section above, and does not satisfy all the three criteria outlined in 40 CFR 64.2(a)(1) through (a)(3), and therefore is not subject to 40 CFR 64, Compliance Assurance Monitoring.

VOC controlled emission limit = 39.2 tons/yr
Control efficiency = 95%
Number of sources (units) = 12

VOC uncontrolled emissions = (39.2 tons/yr)/(1-0.95)
= 784 tons/yr
= 65.33 tons/yr-source

The production capacity of each line is same, and therefore VOC emissions are likely to be evenly distributed among the sources (units). Even if a variation of 30% is considered between the production lines, VOC emissions from a source (unit) may be as high as:

VOC uncontrolled emissions = (65.33 tons/yr)(1.3)
= 84.9 tons/yr < 100 tons/yr

S-16, Scrap Collection System

The waste aluminum trimmed from the tops of the cans is sent to the Scrap Collection System, S-16, where the scrap is collected in a cyclone.

Particulate emissions from S-16 are in the form of oil mist (from oil used in the drawing process) and water vapor (from cooling). Any oil mist or water vapor that leaves the cyclone (A-6) is

subsequently captured by the oil mist collector (A-7), a single stage electrostatic precipitator. Unabated oil mist emissions are conservatively estimated to be 1 pound per ton of aluminum scrap. The facility estimates that the maximum aluminum scrap throughput at S-16 is 4,400 tons per year. Therefore, the highest unabated oil mist emissions would be 4,400 lb/yr (2.2 tons/yr).

S-16 does not satisfy all the three criteria outlined in 40 CFR 64.2(a)(1) through (a)(3), and therefore is not subject to 40 CFR 64, Compliance Assurance Monitoring.

S-17, Lime Silo

Beverage cans are washed in a caustic lime solution prior to coating and finishing. Rexam has a lime usage rate of 20 lb/hour (0.24 tons/day), the Lime Silo S-17 has a capacity of 10 tons. Therefore, at the maximum continuous lime usage rate, the silo must be refilled once every 41.7 days (about 9 times per year). The silo is filled at a rate of 16,000 lb/hr, taking 1.25 hours to fill. This silo only has a potential to emit while it is being filled.

From AP-42 Table 11.12-2, an uncontrolled PM factor of 0.27 lb/ton is given for "cement unloading to elevated storage silo". Based on the maximum fill rate of the silo, the highest uncontrolled emissions from S-17 would be 2.2 lb/hr (2.7 lb per silo fill and 24.3 lb/9 times silo fill in a year).

S-17 does not satisfy all the three criteria outlined in 40 CFR 64.2(a)(1) through (a)(3), and therefore is not subject to 40 CFR 64, Compliance Assurance Monitoring.

S-21, Emergency Diesel Fire Pump Engine

The emergency diesel fire pump engine, S-21, does not have any abatement device and does not satisfy all the three criteria outlined in 40 CFR 64.2(a)(1) through (a)(3), and therefore is not subject to 40 CFR 64, Compliance Assurance Monitoring.

Changes to permit:

- The dates of adoption or approval of the rules and their "federal enforceability" status in Table IV-A through IV-I will be updated.
- Tables IV–A through IV-I will be updated to add rules and standards to conform to current practice. The following rules and standards will be added:
  - BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements
  - SIP Regulation 6, Particulate Matter and Visible Emissions

- Description of requirement of BAAQMD Condition ID# 391, 16547, and 16548 will be updated or revised as applicable.
- A new Table IV-J for S-21, Emergency Diesel Fire Pump Engine will be added.

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

"409.10 A schedule of compliance containing the following elements:

10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;

10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and

10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted."

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

The BAAQMD Compliance and Enforcement Division has conducted a review of compliance for the time period from 6/27/2005 (the date of issuance of the last renewal Title V permit) through 8/31/2012 and has no records of compliance problems at this facility. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

Changes to permit:
No changes will be made to this part of the permit.

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

All changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all 'strike-out" language will be deleted; all "underline" language will be retained, subject to consideration of comments received.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
Cumulative Increase: This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
TRMP: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

Changes to permit:

- Permit conditions ID# 16547, 16548 will be revised to conform to current language in practice.
- Permit condition ID# 391 will be replaced by the current revised version.
- A new permit condition ID# 24495 for S-21, Emergency Diesel Fire Pump Engine will be added.
- Some of the basis of permit conditions will be updated.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has reviewed all monitoring and has determined the existing monitoring is adequate with the following exceptions.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator

monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements**.** It follows that, although Title V calls for a re-examination of all monitoring**,** there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation**.** Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate**.**

The following requirements in the Title V permit do not currently require monitoring:

PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
SCRAP COLLECTION SYSTEM: S-16	BAAQMD Regulation 6-1-301	≥Ringelmann No. 1 for no more than 3 minutes in any hour	None
	BAAQMD Regulation 6-1-310	0.15 gr/dscf	None
	BAAQMD Regulation 6-1-311	2.7 pounds/hour, for Process Weight Rate (P) 1,000 pounds/hour	None
LIME SILO: S-17	BAAQMD Regulation 6-1-310	0.15 gr/dscf	None
	BAAQMD Regulation 6-1-311	16.6 pounds/hour, for Process Weight Rate (P) 16,000 pounds/hour	None
S-21 Emergency diesel fire pump engine	BAAQMD Regulation 6-1-303.1	≥Ringelmann No. 2 for no more than 3 minutes in any hour	None
	BAAQMD Regulation 6-1-310	0.15 gr/dscf	None

PM Monitoring Discussion:

BAAQMD Regulation 6, Rule 1 "Particulate Matter – General Requirements"

Visible Emissions

BAAQMD Regulation 6-1-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour).

S-16, Scrap Collection System:

The waste aluminum trimmed from the tops of the cans is sent to the Scrap Collection System S-16 where the scrap is collected in a cyclone.

Particulate emissions from S-16 are in the form of oil mist (from oil used in the drawing process) and water vapor (from cooling). Any oil mist or water vapor that leaves the cyclone (A-6) is subsequently captured by the oil mist collector (A-7), a single stage electrostatic precipitator. Unabated oil mist emissions are conservatively estimated to be 1 pound per ton of aluminum scrap. The facility estimates that the maximum aluminum scrap throughput at S-16 is 4,400 tons per year. Therefore, the highest unabated oil mist emissions would be 4,400 lb/yr (2.2 tons/yr). The Oil Mist Collector A-7 has a collection efficiency of 95% (manufacturer's specification), so the highest actual oil mist emissions from S-16 should be 220 lb/yr (0.11 tons/yr). In reality, oil mist emissions are assumed to be negligible.

S-17, Lime Silo:

Beverage cans are washed in a caustic lime solution prior to coating and finishing. Rexam has a lime usage rate of 20 lb/hour (0.24 tons/day). The Lime Silo S-17 has a capacity of 10 tons. Therefore, at the maximum continuous lime usage rate, the silo must be refilled once every 41.7 days (about 9 times per year). The silo is filled at a rate of 16,000 lb/hr, taking 1.25 hours to fill. This silo only has a potential to emit while it is being filled.

From AP-42 Table 11.12-2, an uncontrolled PM factor of 0.27 lb/ton is given for "cement unloading to elevated storage silo". Based on the maximum fill rate of the silo, the highest uncontrolled emissions from S-17 would be 2.2 lb/hr (2.7 lb per silo fill). Assuming a typical (conservative) baghouse abatement efficiency of 95%, actual PM10 emissions will be 0.14 lb/silo fill or 1.2 lb/yr (<0.001 tons/yr).

Conclusion: Based on the insignificant particulate emissions associated with the Scrap Handling Operation S-16 and the Lime Silo S-17 as demonstrated above, periodic monitoring for the above Regulation 6, Rule 1 limits is not recommended for either of these sources.

S-21, Emergency Diesel Fire Pump Engine:

S-21 Emergency diesel fire pump engine is fired exclusively on diesel fuel with a maximum sulfur content of 0.05% by weight, therefore exceedances of visible emissions of Ringelmann No. 2 are not expected. S-21 is expected to comply with the requirements of Regulation 6-1-303.1. Moreover, the fire pump engine operates only during emergencies, so additional monitoring is not warranted.

Particulate Weight Limitation

BAAQMD Regulation 6-1-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. This is a "grain loading" standard.

Potential to emit PM from S-21, emergency diesel fire pump engine is so low and the operation is intermittent, additional monitoring to assure compliance with the emission limits is not justified and is not required. Requiring CEM or annual source tests for this source would be onerous.

Diesel PM-10 emissions = 1.33 lb/yr (Reference: NSR Application # 20859)

In addition, EPA's July 2001 agreement with CAPCOA and ARB titled, "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", proposes the following monitoring to demonstrate compliance with the grain loading standard for non-utility distillate-oil-fueled emergency piston-type IC Engines: Maintain records of all engine usage (such as time or fuel meter readings) and maintenance. S-21 is subject to such a monitoring requirement.

SO_2 Sources

S# & Description	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
S-21 Emergency diesel fire pump engine	BAAQMD 9-1-301	Ground level concentrations of SO_2 shall not exceed: 0.5 ppm for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes or 0.05 ppm averaged over 24 hours	None
	BAAQMD 9-1-304	Sulfur content of liquid fuel ≤ 0.5% by weight	None
	40 CFR Part 60 Subpart IIII 60.4207(a); 40 CFR Part 80 Subpart I 80.510(a) (1)	Sulfur content of diesel fuel ≤ 500 ppm, maximum	None
	40 CFR Part 60 Subpart IIII 60.4207(a); 40 CFR Part 80 Subpart I 80.510(b) (1)	Sulfur content of diesel fuel ≤ 15 ppm, maximum	None

SO_2 Discussion:

BAAQMD Regulation 9-1-301

Emergency diesel fire pump engine is subject to the SO_2 emission limitations in District Regulation 9, Rule 1 (ground-level concentration).

Potential to emit SO2 from S-21, emergency diesel fire pump engine is so low and the operation is intermittent, additional monitoring to assure compliance with the emission limits is not justified and is not required. Requiring CEM or annual source tests for this source would be onerous.

SO2 emissions = 0.9 lb/yr (Reference: NSR Application # 20859)

BAAQMD Regulation 9-1-304 and 40 CFR Part 60, Subpart IIII

Per the CAPCOA/ARB/EPA Agreement of 6/24/99 entitled "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", compliance with the diesel fuel sulfur content limit in BAAQMD Regulation 9-1-304, 40 CFR Part 60, Subpart IIII, and the permit condition will be assured because the sulfur content of diesel available for use in the state of California is 15 ppm (0.0015% wt.).

Changes to permit:

- The dates of adoption or approval of the rules and their "federal enforceability" status in Table VII-A through VII-H will be updated.
- Tables VII–A through VII-H will be updated to add rules and standards to conform to current practice. The following rules and standards will be added:
  - BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements
  - SIP Regulation 6, Particulate Matter and Visible Emissions
  - The description of the BAAQMD 6-1-301 and 6-1-303.1 limits in Section VII has been corrected to say "for no more than 3 minutes in any hour"
  - The tables in Section VII will be updated to correspond with changes made to the tables in Section IV.
  -
- A new Table VII-I for S-21, Emergency Diesel Fire Pump Engine will be added.

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. The test methods are not "applicable requirements" as defined by Regulation 2-6-202.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to permit:
No changes will be made to this part of the permit.

IX. Permit Shield:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's "White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program." The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.
This facility has no permit shields.
This permit has no streamlining.

Changes to permit:
No changes will be made to this part of the permit.

X. Glossary

Changes to permit:
No changes will be made to this part of the permit.

D. Alternate Operating Scenarios:

Rexam has expressed the need for operational flexibility in order to respond to customer demands. Potential operational changes may include: changing raw materials (coatings, inks, and solvents) to equivalent materials that are also in compliance with all applicable requirements, changing the contents of storage tanks, making minor changes to line speed, and updating production processes, all of which will not increase the potential to emit for the facility.

The types of operational changes suggested by Rexam do not violate the current terms of the Title V permit and do not require that alternate operating scenarios be included.

E. Compliance Status:

An inter-office memorandum from the Director of Compliance and Enforcement to the Director of Engineering Division presents a review of the compliance record of Rexam Beverage Can Company (Site #: A1665). The Compliance and Enforcement Division staff has reviewed the records for Rexam Beverage Can Company for the period from 6/27/2005 through 8/31/2012. This review was initiated as part of the District evaluation of an application by Rexam Beverage Can Company for a Title V renewal permit. During the period subject to review, activities known to the District include:

- There were 0 Notices of Violation issued during this review period.
- The District found no on-going instances of non-compliance.
- The District did not receive any alleged complaints.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were no monitor excesses reported or documented by District staff.
- There was one notification of equipment breakdown (inoperative valve on thermal oxidizer) reported or documented by District staff. No notice of violation was issued as a result of this report. One emergency variance was granted for an additional day to cover 13 hours of thermal oxidizer downtime not covered by Breakdown RCA (Reportable Compliance Activity).

The BAAQMD Compliance and Enforcement Division has stated that ongoing compliance for this facility can be reasonably assured based on their past compliance record.

F. Differences between the Application and the Proposed Permit:

The renewal Title V permit application for this facility was submitted on July 7, 2009. This application served as the basis for the District's development of the proposed renewal permit. There are no significant differences between the application and the proposed permit. All differences between the renewal Title V application and the proposed permit have been discussed in this Statement of Basis.

APPENDIX A

BAAQMD COMPLIANCE REPORT

COMPLIANCE & ENFORCEMENT DIVISION

Inter-Office Memorandum

September 4, 2012

TO: JIM KARAS – DIRECTOR OF ENGINEERING

FROM: RICHARD LEW – ACTING DIRECTOR OF COMPLIANCE & ENFORCEMENT

SUBJECT: REVIEW OF COMPLIANCE RECORD OF:

REXAM BEVERAGE CAN COMPANY; SITE # A1665

Background

This review was initiated as part of the District evaluation of an application by Rexam Beverage Can Company for a Title V Permit Renewal. It is standard practice of the Compliance and Enforcement Division to undertake a compliance record review in advance of a renewal of a Title V Permit. The purpose of this review is to assure that any non-compliance problems identified during the prior five-year permit term have been adequately addressed, or, if non-compliance persists, that a schedule of compliance is properly incorporated into the Title V permit compliance schedule. In addition, the review checks for patterns of recurring violation that may be addressed by additional permit terms. Finally, the review is intended to recommend, if necessary, any additional permit conditions and limitations to improve compliance.

Compliance Review

Compliance records were reviewed for the time period from 6/27/05 (the date of issuance of the initial Title V permit) through 8/31/2012. The results of this review are summarized as follows.

1. **Violation History**

Staff reviewed Rexam Beverage Can Company Annual Compliance Certifications and found no ongoing non-compliance and no recurring pattern of violations.

Staff also reviewed the District compliance records for the review period. During this period Rexam Beverage Can Company activities known to the District include:

District-issued 0 Notices of Violation:

H:\Enforcement\Title V Cert\Rexam Beverage Can Co_Title V review_2012.doc

2. Complaint History

The District received 0 air pollution complaints alleging Rexam Beverage Can Company as the source.

3. Reportable Compliance Activity

Reportable Compliance Activity (RCA), also known as "Episode" reporting, is the reporting of compliance activities involving a facility as outlined in District Regulations and State Law. Reporting covers breakdown requests, indicated monitor excesses, pressure relief device releases, inoperative monitor reports and flare monitoring.

Within the review period, the District received 1 notification for RCAs. No NOVs were issued as a result of these RCA's.

The District received 1 notification for Reportable Compliance Activities (RCA).

Episode	Date Occur	# of Days	Comments	Disposition
06F25	5/18/2012	1	Inoperative valve on oxidizer	granted

4. Enforcement Agreements, Variances, or Abatement Orders

There were no enforcement agreements or abatement orders for Rexam Beverage Can Company during the review period. There was one (1) emergency variance (Docket # 3634) granted for one additional day to cover the additional 13 hours of thermal oxidizer downtime not covered by Breakdown RCA 06F25.

Conclusion

Following its review of all available facility and District compliance records from 6/27/05 (the date of issuance of the initial Title V permit) through 8/31/2012 , the District's Compliance and Enforcement Division has determined that Rexan Beverage Can Company was in continuous compliance from the initial permit period through the present. Rexam Beverage Can Company has demonstrated no evidence of ongoing noncompliance and no recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule for this facility.

Based on this review and analysis of all the violations for the review period, the District has concluded that no schedule of compliance or change in permit terms is necessary beyond what is already contained in the facility's current Title V permit.

APPENDIX B

GLOSSARY

ACT
Federal Clean Air Act

APCO
Air Pollution Control Officer

API
American Petroleum Institute

ARB
Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BARCT
Best Available Retrofit Control Technology

C5
An Organic chemical compound with five carbon atoms

C6
An Organic chemical compound with six carbon atoms

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CAPCOA
California Air Pollution Control Officers Association

CEC
California Energy Commission

CEQA
California Environmental Quality Act

CEM
A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NOx concentration) in an exhaust stream.

CFR
The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO
Carbon Monoxide

CO2
Carbon Dioxide

Cumulative Increase
The sum of permitted emissions from each new or modified source since a specified date. Used to determine whether threshold-based requirements are triggered.

District
The Bay Area Air Quality Management District

dscf
Dry Standard Cubic Feet

dscm
Dry Standard Cubic Meter

E 6, E 9, E 12
Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals (4.53) x (10^6) = (4.53) x (10 x 10 x 10 x 10 x 10 x 10) = 4,530,000. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EGT
Exhaust Gas Temperature

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District Regulations.

Federally Enforceable, FE
All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPS), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FP
Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

FR
Federal Register

GDF
Gasoline Dispensing Facility

GLC
Ground level concentration.

GLM
Ground Level Monitor

grains
1/7000 of a pound

HAP
Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

H2S
Hydrogen Sulfide

HHV
Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

LHV
Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60F.

Major Facility
A facility with potential emissions of regulated air pollutants greater than 100 tons per year, greater than or equal to 10 tons per year of any single hazardous air pollutant, and/or greater than or equal to 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity as determined by the EPA administrator.

MFR
Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

MOP
The District's Manual of Procedures.

MSDS
Material Safety Data Sheet

MW
Megawatts

NA
Not Applicable

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. Contained in 40 CFR Part 61.

NMHC
Non-methane Hydrocarbons

NMOC
Non-methane Organic Compounds (Same as NMHC)

NO_X
Oxides of nitrogen.

NSPS
Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

NSR
New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O2
The chemical name for naturally-occurring oxygen gas.

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO_X, PM10, and SO_2.

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and by virtue of certain other characteristics (defined in Regulation 2, Rule 6) is subject to Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

PM
Total Particulate Matter

PM10
Particulate matter with aerodynamic equivalent diameter of less than 10 microns

PSD
Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air

Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SCR
A "selective catalytic reduction" unit is an abatement device that reduces NOx concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates at a specific temperature range, and injected ammonia to promote the conversion of NOx compounds to nitrogen gas.

SIP
State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2
Sulfur dioxide

SO2 Bubble
An SO2 bubble is an overall cap on the SO2 emissions from a defined group of sources, or from an entire facility. SO2 bubbles are sometimes used at refineries because combustion sources are typically fired entirely or in part by "refinery fuel gas" (RFG), a waste gas product from refining operations. Thus, total SO2 emissions may be conveniently quantified by monitoring the total amount of RFG that is consumed, and the concentration of H2S and other sulfur compounds in the RFG.

SO3
Sulfur trioxide

THC
Total Hydrocarbons (NMHC + Methane)

therm
100,000 British Thermal Unit

Title V
Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC
Total Organic Compounds (NMOC + Methane, Same as THC)

TRMP
Toxic Risk Management Plan

TSP
Total Suspended Particulate

TVP
True Vapor Pressure

VOC
Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
Btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m^2	=	square meter
min	=	minute
MM	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

Symbols:

<	=	less than
>	=	greater than
$\leq$	=	less than or equal to
$\geq$	=	greater than or equal to

APPENDIX C

EVALUATION REPORTS

Engineering Evaluation Report

Rexam Beverage Can Company, P#1665
2433 Crocker Circle, Fairfield
Application #20058

Background

Rexam Beverage Can Company ("Applicant") has submitted an application to replace the existing Direct Flame Afterburner, A-1, with a new more efficient Regenerative Thermal Oxidizer, A-9. The existing afterburner is used to abate the can printing and coating lines at the facility. The proposed replacement abatement device will function in the same manner, with no change to the existing printing and coating operations, the existing emission cap, or minimum required abatement efficiency.

A-9, Regenerative Thermal Oxidizer, MegTech, 4.2 MMBtu/hr, natural gas-fired

In addition, the Applicant has requested correction to the source descriptions for S-5 and S-11 on the facility's Title V/Major Facility Review Permit. That amendment will be made under a separate application to revise the Title V/Major Facility Review Permit, Application #19912.

Emission Calculations

The Applicant is proposing to replace the existing Direct Flame Afterburner (9 MMBtu/hr) with a smaller, more efficient Regenerative Thermal Oxidizer, which will meet the same abatement efficiency as the existing Afterburner. There is no increase in emissions associated with this replacement; in fact there will be a small decrease in the combustion emissions as the replacement has a lower firing capacity.

Cumulative Increase

The District tracks increases in emissions from each facility. There will be no increase in emissions due to the proposed replacement of the existing abatement device, A-1, therefore there is no change to the cumulative emission increase for this site.

Compliance Determination

Regulation 1, "General Provisions and Definitions"

The facility is subject to Regulation 1, Section 301, which prohibits discharge of air contaminants resulting in public nuisance. The proposed replacement Thermal Oxidizer will meet the same abatement efficiency as the existing Afterburner, so there will be no change in emissions. The project is therefore not expected result in any public nuisance complaints.

Public Notice Requirements, Regulation 2, Rule 1

The public notification requirements of Regulation 2-1-412 apply to modifications which result in an increase in toxic air contaminant or hazardous air contaminant emission at facilities within 1,000 feet of the boundary of a K-12 school. The applicant has reported no K-12 school within that radius of this facility, which is confirmed by the District's database. There will also be no increase in toxic air contaminant or hazardous air contaminant emissions from the proposed replacement, therefore the public notice requirements do not apply.

California Environmental Quality Act (CEQA) Requirements, Regulation 2, Rule 1

District Regulation 2, Rule 1, Section 310 specifies that all proposed new and modified sources subject to District permit requirements must be reviewed in accordance with CEQA

requirements except for ministerial projects or projects exempt from CEQA under Section 2-1-312. This project is exempt from CEQA review under Section 2-1-312.2, "Permit applications to install air pollution control or abatement equipment."

Best Available Control Technology (BACT) Requirements, Regulation 2, Rule 2
Emission Offsets and Prevention of Significant Deterioration (PSD), Regulation 2, Rule 2
Per Regulation 2, Rule 2, BACT is triggered when the maximum emissions from a new or modified source are 10 lbs per day or more. The precursor organic compound (POC) emission offset requirements are specified in District Regulation 2, Rule 2, Section 302. POC emission offsets must be provided for new or modified sources located at a facility that will emit or will be permitted to emit 10 tons of POC per year or more.

The proposed replacement of the existing Afterburner A-1 with the new Regenerative Thermal Oxidizer A-9 will not constitute a modification of any of the abated printing and coating sources abated, since there will be no increase in emissions associated with this change. Therefore BACT review is not triggered by this project, and POC offsets are not required.

The PSD requirements in District Regulation 2, Rule 2, Section 304 apply to major modifications at a major facility. The proposed project is not a major modification, therefore the PSD requirements do not apply.

Health Risk Assessment Requirements, Regulation 2, Rule 5
The District's regulation concerning toxic air contaminant emissions is codified in Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants (TAC). All TAC emissions from new and modified sources are subject to risk assessment review, if emissions of any individual TAC exceed either the acute or chronic emission thresholds defined in Table 2-5-1. Since the proposed abatement device replacement will not result in any increase in TAC emissions, a risk assessment is not required.

Major Facility Review, Regulation 2, Rule 6
This regulation codifies the federal operating permit requirements in 40 CFR Part 70. This facility is a major facility subject to 40 CFR Part 70 (see discussion below), so the proposed replacement of the existing abatement device will be updated to the facility's Title V permit under Application #19912.

Regulation 8, Rule 11, "Organic Compounds – Metal Container, Closure, and Coil Coating"
The can printing and coating operations at this facility are subject to the requirements of Regulation 8, Rule 11. The Applicant complies with the emission limits in this rule by complying with the abatement requirements in Section 8-11-302, a minimum abated of at least 90% by weight. The proposed replacement Regenerative Thermal Oxidizer is expected to meet and exceed this abatement efficiency with a minimum required efficiency of 95% by weight, specified by permit condition (a BACT limit). The Applicant is expected to continue to comply with the Operation and Maintenance Plan requirements in Section 8-11-402, as well as the recordkeeping and monitoring requirements in Section 8-11-504.

40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS)

Subpart A, General Provisions

Subpart WW, Standards of Performance for the Beverage Can Surface Coating Industry:

40 CFR Part 60 Subpart WW applies to beverage can surface coating operations which commenced construction, modification, or reconstruction after 11/26/1980. The rule limits volume-weighted calendar-month average emissions to the following:

- 0.29 kg of VOC per litre of coating solids from each 2-piece exterior base coating operation, except clear base coat;
- 0.46 kg of VOC per litre of coating solids from each 2-piece exterior base clear base coating operation and overvarnish coating; and
- 0.86 kg of VOC per litre of coating solids from each 2-piece inside spray coating operation.

For facilities which use a control device to meet these VOC emission limits, performance testing to demonstrate the overall reduction efficiency is required, as well as continuous parametric (temperature) monitoring and recording to demonstrate continued compliance.

Section 60.493(b) requires initial and monthly performance testing per Section 60.8(a), and Section 60.494 requires continuous monitoring and recording of the operating temperature of the incinerator. Section 60.495(a) requires an initial compliance report and Section 60.495(b) requires quarterly reports of any non-compliant operation and semi-annual reports of compliance. The Applicant is expected to continue the performance testing, monitoring, and reporting for the replacement Regenerative Thermal Oxidizer, A-9.

40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are no rules under this regulation that apply to coating of metal cans.

40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories/Maximum Achievable Control Technology (MACT) Standards:

Subpart KKKK, National Emission Standards for Hazardous Air Pollutants – Surface Coating of Metal Cans

Subpart KKKK applies to surface coating of metal cans using at least 1500 gallons of coating per year located at major source of hazardous air pollutants (HAP). The HAP emissions from this facility are limited by permit condition to less than the major source HAP thresholds, therefore the facility is not a major source of HAP emissions, and this regulation does not apply.

40 CFR Part 70, State Operating Permit Programs (Title V):

40 CFR Part 70 requires major facilities and designated facilities to obtain and operate under a federal operating permit. This facility was determined subject to the operating permit requirements of 40 CFR Part 70 due to potential emissions of 10 tons per year or more of glycol ethers, primarily ethylene glycol monobutyl ether. The original Title V permit was issued on July 28, 1999. In November 2004, EPA removed ethylene glycol monobutyl ether from the group of glycol ethers listed as hazardous air pollutants. Based on this change, the Applicant is eligible to leave the Title V program by obtaining a Synthetic Minor Operating Permit, but has not elected to do so.

The Title V permit was renewed on June 27, 2005, and a minor permit revision was issued August 16, 2006. Replacement of the existing Afterburner, A-1, with the proposed Regenerative Thermal Oxidizer, A-9 will be updated to the Title V/Major Facility Review Permit under the Application #19912.

Permit Conditions

Proposed changes to the existing permit condition for the can coating operation and abatement device requirements are shown below in strikeout/underline format:

Permit Condition #391

For Sources: S-1 through 12 (Beverage Can Coating Sources) and
A-9, Regenerative Thermal Oxidizer, MegTech, 4.2 MMBtu/hr, natural gas-fired

EMISSIONS

1. The owner/operator shall ensure that total volatile organic compound (VOC) emissions due to coating usage and clean-up solvent usage at this facility do not exceed 34.4 tons/year. Total Emissions of hazardous air pollutants (HAPs) at this facility shall be less than 10 tons per year for any single HAP and 25 tons per year for any combination of HAPs.
   (Basis: Cumulative Increase, 40 CFR 63.3441(b))

VOC ABATEMENT

2. The owner/operator shall ensure that VOC emissions from the following sources shall be collected and controlled by the Regenerative Thermal Oxidizer, A-9, during all periods of operation:
   (Basis: BACT, Regulation 8-11-302)

   Basecoater Pin Ovens (Sources 2 and 8)
   Printer Pin Ovens (Sources 4 and 10)
   Inside Bake Ovens (Sources 6 and 12)
   Enclosed Inside Spray Machine Banks (Sources 5 and 11)
   Including the enclosed doubling boxes between spray machines and vacuum elevators

3. The owner/operator shall ensure that the Basecoater Pin Ovens S-2 and S-8, the Printer Pin Ovens, S-4 and S-10, and the Inside Bake Ovens, S-6 and S-12 are not operated unless ducted and vented as designed to the Regenerative Thermal Oxidizer, A-9. The ducting from each oven shall be equipped with an airflow sweitch electrically connected to the oven control panel. In the event of a loss of airflow due to mechanical failure, the affected oven shall automatically shut down and all can production at the affected line shall cease.
   (Basis: BACT)

4. In order to demonstrate adequate VOC collection at the Inside Spray Machine Banks S-5 and S-11 (as described above), the owner/operator shall operate monitoring devices in the ducting from the inside spray machine banks, the enclosed doubling boxes between spray machines, and the vacuum elevators for each line. A magnahelic gauge or other approved device shall be installed and maintained downstream of each affected exhaust duct to indicate negative pressure at the duct. The owner/operator shall ensure that a minimum vacuum pressure of 0.2 inches of water column (as indicated by the monitoring devices) is maintained throughout the system.
   (Basis: BACT)

5. The owner/operator shall ensure that the VOC emission control efficiency of the A-9, Regenerative Thermal Oxidizer is maintained at a minimum of 95% by weight whenever the inlet concentration of VOC to the incinerator is equal to or greater than 500 ppm, measured as methane. The owner/operator shall be charged for all uncontrolled emissions during periods of Thermal Oxidizer failure towards compliance with Part #1 above.
   (Basis: BACT)

6. The owner/operator shall maintain a minimum temperature of 1600 degreesF at the A-9, Regenerative Thermal Oxidizer to ensure compliance with the abatement efficiency in Part #5 above. The owner/operator may submit a request for an alternate minimum temperature to the District if source testing demonstrates the required control efficiency can be met at a lower temperature, but the owner/operator must ensure that the minimum temperature of 1600 degreesF is maintained at all

times when the Thermal Oxidizer is required to be in operation as specified in Part #5, until an alternate minimum temperature is approved by the District in writing.
(Basis: BACT)

7. In order to insure that a minimum incinerator temperature is maintained at A-9, the owner/operator shall install and operate continuous temperature measuring and recording instrumentation, consisting of at least three thermocouple temperature probes in the Thermal Oxidizer and at least one recording device, which will continuously record the Thermal Oxidizer temperature as measured by each of the three thermocouples.
(Basis: BACT, Regulation 8-11-504)

8. The minimum temperature requirement in Part #6 shall not apply during an "Allowable Temperature Excursion," provided that the temperature controller setpoint complies with one of the following:
   a. A temperature excursion not exceeding 20 degreesF;
   b. A temperature excursion for a period or periods which when combined are less than or equal to 15 minutes in any hour; or
   c. A temperature excursion for a period or periods which when combined are more than 15 minutes in any hour, provided that all three of the following criteria are met:
      i. The excursion does not exceed 50 degreesF;
      ii. The duration of the excursion does not exceed 24 hours; and
      iii. The total number of such excursions does not exceed 12 per calendar year (or any consecutive 12 month period).

   Two or more excursions great than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit.
   (Basis: Cumulative Increase)

9. For each Allowable Temperature Excursion that exceeds 20 degreesF and 15 minutes in duration, the owner/operator shall keep sufficient records to demonstrate that they meet the qualifying criteria described above. Records shall be retained for a minimum of five years from the date of entry, and shall be made available to the District upon request. Records shall include at least the following information:
   a. Temperature controller setpoint;
   b. Starting date and time, and duration of each Allowable Temperature Excursion;
   c. Measured temperature during each Allowable Temperature Excursion;
   d. Number of Allowable Temperature Excursions per month, nd total number for the current calendar year; and
   e. All strip charts or other temperature records
   (Basis: Regulation 2-1-403)

10. For the purposes of Parts #8 and #9, a temperature excursion refers only to temperatures below the limit.
    (Basis: Regulation 2-1-403)

11. The owner/operator shall ensure that the temperature data collected from this instrumentation is maintained in a file which shall be available for District inspection for a period of at least 60 months following the date on which such data or reports are recorded or made.
    (Basis: BACT, Regulation 2-6-501)

RECORDKEEPING AND REPORTING

12a. The owner/operator shall maintain the following data on a daily basis:

(Basis: Cumulative Increase, Regulation 2-6-501)
Operating time of Coating Lines 1 and 2 Can production for each line (cans/day). Amount and type of coating used for Basecoat, Inside Spray and overvarnish. A recorded value from each exhaust duct vacuum monitoring device.

12b. The owner/operator shall maintain the following data on a weekly basis:
(Basis: Cumulative Increase)
Amount of clean-up solvent used,
Amount of Bottom Rim varnish

12c. The owner/operator shall ensure that these records are available for District inspection for a period of at least 60 months following the date which such data or reports are recorded.

NSPS REQUIREMENTS

13. The owner/operator shall submit all notifications (including initial notification of construction and startup date) and reports (including an initial performance report, excess emissions and monitoring system performance reports, semiannual summary reports) as required by 40 CFR Part 60, Subpart WW to EPA Region IX and to the District at the following addresses:

Director, Air Division	Director, Compliance and Enforcement Division
USEPA, Region IX	BAAQMD
75 Hawthorne Street	939 Ellis Street
San Francisco, CA 94105	San Francisco, CA 94109

(Basis: 40 CFR Part 60, Subparts A and WW)

14. The owner/operator shall perform initial and monthly performance tests to demonstrate that A-9, Regenerative Thermal Oxidizer, complies with the abatement efficiency requirement in 40 CFR Part 60, Subpart WW. This test and notification of such test shall be performed in accordance with the requirements in 40 CFR Part 60.8. Notifications of such tests shall be submitted to EPA at the above address and to the District's Source Test Section.

(Basis: 40 CFR Part 60, Subparts A and WW)

Recommendations

I recommend issuing an Authority to Construct for the following:

A-9, Regenerative Thermal Oxidizer, MegTech, 4.2 MMBtu/hr, natural gas-fired

_____ _____
Tamiko Endow Date
Air Quality Engineer

Engineering Evaluation Report

Rexam Beverage Can Company, P#1665
2433 Crocker Circle, Fairfield
Application #20859

Background

Rexam Beverage Can Company (Rexam), located at 2433 Crocker Circle in Fairfield, has submitted an application for one Emergency Diesel Fire Pump Engine, 135 bhp. Rexam has indicated that the fire pump engine will be used exclusively for fire protection and for maintenance and testing only as required by the National Fire Protection Association 25, "Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection System."

S-21, Emergency Diesel Fire Pump Engine, Deutz Model DFP4-2012C15, Model Year 2008, 135 bhp

Emission Calculations

Evaluation of the source emissions has been based on discretionary use (maintenance and testing) of this source for no more than 50 hours per year. This limit will be enforced through the permit conditions and recordkeeping requirements. Use of an emergency engine under emergency conditions is not limited in District permits, therefore emissions resulting from emergency use are not considered in this evaluation.

For worst case daily emissions, the maximum daily source emissions were based on continuous use for 24 hours per day; maximum annual emissions were based on discretionary use for up to 50 hours per year. The emissions were calculated on the attached spreadsheet and summarized below.

Project Emissions

Pollutant	Project Emission Increase, lb/yr	Project Emission Increase, tpy	Maximum Daily Emissions, lb/day
PM10	1.3	0.0007	0.6
POC	3.6	0.0018	1.7
NOx	67.5	0.0338	32.4
SO2	0.9	0.0004	0.4
CO	7.8	0.0039	3.7

Cumulative Increase

The District tracks emission increases from each new or modified source permitted at a facility. These cumulative emissions were reset for all facilities in 1991. Rexam has not permitted any new sources or modified any existing sources since that date. The only permit activity since 1991 was the replacement of the existing afterburner with a smaller Regenerative Thermal Oxidizer, which is expected to result in a reduction in emissions from the site. Therefore, this facility has had no cumulative emission increases since 1991. The emissions from this fire pump engine will be entered for the facility as shown below:

Facility Cumulative Increase

Pollutant	Current, tpy	Project, tpy	New, tpy
PM10	0	0.0007	0.0007
POC	0	0.0018	0.0018
NPOC	0	0	0
NOx	0	0.0338	0.0338
SO2	0	0.0004	0.0004
CO	0	0.0039	0.0039

Compliance Determination

Regulation 1, "General Provisions and Definitions"

All sources are subject to Regulation 1, Section 301, which prohibits discharge of air contaminants resulting in public nuisance. The proposed fire pump engine will only be used in emergency situations and for limited testing and maintenance hours and is therefore not expected to be a source of public nuisance.

California Environmental Quality Act (CEQA) Requirements, Regulation 2, Rule 1

District Regulation 2, Rule 1, Section 310 specifies that all proposed new and modified sources subject to District permit requirements must be reviewed in accordance with the California Environmental Quality Act (CEQA) requirements, except for ministerial projects or projects exempt from CEQA under Section 2-1-312. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 2.3.1, Combustion Equipment – Internal Combustion Engines, Stationary Diesel Engines. Therefore, this application is considered to be ministerial and is exempt from CEQA review.

Public Notice Requirements, Regulation 2, Rule 1

The public notification requirements of Regulation 2-1-412 apply to modifications which result in any increase in toxic air contaminant or hazardous air contaminant emissions at facilities within 1,000 feet of the boundary of a K-12 school. The applicant has reported no K-12 school within that radius of this facility, and the District's database confirms the closest K-12 school 0.32 mile (1,690 feet) from the facility. Therefore, the public notice requirements in Regulation 2-1-412 do not apply.

Best Available Control Technology (BACT) Requirements, Regulation 2, Rule 2

Regulation 2, Rule 2, Section 301 states that BACT requirements are triggered if maximum potential emissions from a new or modified source are 10 lbs/day or more. The NOx emissions from the fire pump engine will exceed 10 lbs/day if the source is operated for 24 hours/day, therefore BACT review is triggered for this pollutant.

The BACT/TBACT Workbook has been updated recently and no longer addresses BACT control for direct-drive emergency standby fire pump engines. A search of the California Air Resources Board (CARB) BACT Clearinghouse, Environmental Protection Agency Clearinghouse, South Coast Air Quality Management District (SCAQMD), and San Joaquin Valley Air Pollution Control District for emergency standby fire pump engines with a rated horsepower between 100 – 175 hp yielded a NOx BACT determination by SCAQMD of 6.9 g/bhp-hr made on 10/31/2003 and 9/11/2000.

The CARB Stationary Diesel Air Toxic Control Measure (ATCM) Section 93115.6(a)(4) requires new direct-drive emergency standby fire pump engines to meet Tier 2 off-road emission standards until 3 years after Tier 3 standards are applicable. For engines between 100 and 175 bhp, Tier 3 standards for fire pumps will be applicable on January 1, 2010. The New Source Performance Standard (NSPS), 40 CFR Part 60, Subpart IIII, Table 4 contains emission standards for Stationary Fire Pump Engines and is more lenient than the CARB Stationary Diesel ATCM for pre-Tier 3 engines; however, the effective dates for Tier 3 standards are the same in the NSPS and CARB regulations. Since the CARB Stationary Diesel ATCM requirements are stricter than current BACT determinations and the applicable NSPS, it is proposed that BACT2 for direct-drive emergency standby fire pump engines be compliance with the CARB Stationary Diesel ATCM.

BACT Requirement

Pollutant	*BACT1/TBACT*	*S-21 Emissions*	*BACT2*
NOx	***N/S***	***Current tier standard, 3.0 g/bhp-hr NHMH+NOx***	***Current tier standard, 3.0 g/bhp-hr NHMH+NOx***

This engine complies with the proposed BACT standard based on CARB nonroad engine certification data, which shows that the engine is certified to Tier 2 emission standards (CARB Executive Order U-R-013-0152). The certification provided for this engine was issued to the 2005 model engine, and the manufacturer has indicated that the proposed 2008 model year engine is made to the same specifications. CARB has confirmed that the 2005 model year certification is valid for the 2008 model year fire pump engine proposed.

Emission Offsets and Prevention of Significant Deterioration (PSD) Requirements, Regulation 2, Rule 2

The offset requirements for precursor organic compounds (POC) and nitrogen oxides (NOx) are found in Regulation 2, Rule 2, Section 302. Under Section 2-2-302, POC and NOx emission offsets are required for new or modified sources at a facility which emits or will be permitted to emit 15 tons per year or more on a pollutant specific basis. If the facility emits or will be permitted to emit less than 35 tons of POC or NOx per year, the emission offsets are provided by the District's Small Facility Banking Account. Since the proposed fire pump engine, S-21 is a new source and will result in emissions of both POC and NOx, evaluation of POC and NOx emission offsets is required. The analysis of emission offsets is based on potential facility-wide emissions.

POC Emissions

The emissions of organic compounds at this site are caused by coating and solvent usage at the can coating line, emissions from storage of coatings at 3 bulk tanks, as well as the organic compounds caused by natural gas combustion at the ovens and diesel fuel combustion at the proposed fire pump engine. At the time this application was received, the permit condition for the facility's beverage can coating line, Sources S-1 through S-12, limited total POC emissions from coating and solvent usage to 39.2 tons per year (Condition 391, Part 1). This emission cap was issued when the facility was originally permitted in 1985. The emission offset threshold at that time was 40 tons per year, so Rexam (at that time National Can Corporation) was not required to provide emission offsets.

Regulation 2, Rule 2 now requires a facility to provide emission offsets when either the actual facility-wide emissions or the permitted emission level is 35 tons per year or more. Since the existing emission limit on the can coating line alone exceeds 35 tons per year, the small increase in POC emissions from the proposed fire pump engine has triggered POC emission offset requirements for this site.

Regulation 2, Rule 2 requires Rexam to provide emission offsets for the total permitted POC emissions from the facility, unless the facility-wide POC emissions are limited to less than 35 tons per year. The actual emissions from the can coating line are currently less than the existing emission cap and also less than 35 tons per year, so the facility has elected to accept a reduction on the can coating line emission cap to limit the facility-wide POC emissions below 35 tons per year.

The coating and solvent usage emission cap for the can coating line will be reduced to 34.4 tpy to maintain the facility-wide POC emissions below 35 tpy. A small fraction of these POC emissions occur at the bulk storage tanks due to breathing and working losses. However, since the emission calculations for the coating line assumes all of the solvent contained in the coatings applied and the solvent used at the line are emitted to the atmosphere, the POC emissions from the 3 bulk storage tanks are included in this emission calculation. The POC emissions due to natural gas combustion at the facility have been

based on continous operation of each combustor at the maximum firing capacities, and emission factors from EPA's AP-42 Compilation of Air Pollutant Emission Factors, Volume 1 – Stationary Point and Area Sources, Chapter 1.4 – Natural Gas Combustion, 7/98. The emissions from these permitted sources have been calculated on the attached spreadsheet. The calculation method and resulting emissions are summarized in the table below.

Compliance with the emission cap on the coating line will continue to be demonstrated by emission calculations performed by the facility based on daily coating and weekly solvent usage records. No compliance monitoring is necessary for the combustion emissions from the ovens, as the emissions from these sources have been assessed at maximum rated capacity. The emissions from the fire pump engine have been assessed at the maximum 50 hours of discretionary use per year, as limited by the state Air Toxic Control Measure and the permit conditions. Compliance with this operational limit will be required in the permit conditions through monitoring and recordkeeping. As the facility-wide emissions will be limited to less than 35 tons of POC per year, the facility is not required to provide POC emission offsets at this time.

Facility-wide POC Emissions

Source	*Emission Calculation Method*	*POC Emissions, tpy*
Coating/Solvent Usage Cap (includeds tank emissions)	***Permit Condition Limit***	***39.2***
Fuel Combustion at Ovens	***AP-42 Emission Factor***	***2.25***
S-21, Fire Pump Engine	***CARB certified Emission Factor***	***0.002***
Total Facility Emissions:		***34.9***

NOx Emissions

The sources of NOx emissions at this site are fuel combustion sources: natural-gas combustion at the ovens and the proposed diesel-fuelled fire pump engine. The thermal oxidizer is also a source of NOx emissions, but emission offsets are not required for emissions from abatement devices. As there are no permit conditions limiting natural gas usage at the ovens, the facility is permitted to operate these combustion devices at full capacity. The diesel combustion at the proposed fire pump engine is limited to a maximum of 50 hours of discretionary use per year.

At full capacity of the ovens and 50 hours of operation of the fire pump engine, the maximum potential facility NOx emissions total less than 9 tons of NOx per year. Since the facility-wide potential NOx emissions are less than 15 tons per year, NOx emission offsets are not required.

PM10 and SO2 Emissions

The offset requirements for PM10 and sulfur dioxides are found in Regulation 2, Rule 2, Section 303. Emission offsets for PM10 and SO2 are required for any new or modified source of such emissions, if the source is located at a major facility and the post-project cumulative increase exceeds 1.0 ton per year since April 5, 1991. Although S-21 is a new source of PM10 and SO2 emissions, this facility is not a major facility, therefore PM10 and SO2 emission offsets are not required for this project.

The Prevention of Significant Deterioration (PSD) requirements are found in Regulation 2, Rule 2, Section 304. The PSD requirements apply to major facilities only, therefore since this facility is not a major facililty, PSD does not apply.

Health Risk Assessment Requirements, Regulation 2, Rule 5

The District's regulation concerning toxic air contaminant emissions is codified in Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants. All toxic air contaminants (TAC) emissions

from new and modified sources are subject to risk assessment review, if emissions of any individual TAC exceed either the acute or chronic emission thresholds defined in Table 2-5-1.

Operation of the proposed diesel fire pump engine will result in emissions of diesel particulate matter (PM), which is a toxic air contaminant. The TAC emissions subject to review under Regulation 2, Rule 5 include only the emissions resulting from discretionary use of the proposed fire pump engine. These discretionary emissions are based on 50 hours per year usage and have been calculated on the attached spreadsheet. The emissions are summarized in the table below:

Project TAC Emissions

TAC	Hourly Emissions, lbs/hr	Annual Emissions, lbs/yr	Acute Trigger Level, lbs/hr	Chronic Trigger Level, lbs/yr
Diesel PM	0.027	**1.33**	---	0.58

Since the emissions of diesel PM exceed the chronic trigger level defined for this pollutant, Regulation 2, Rule 5 Section 401 requires this project undergo a Health Risk Screening Analysis.

The risk assessment review of a proposed project at an existing facility that operates other sources of TAC emissions must include existing TAC emissions, in addition to the proposed project emissions, if the proposed project is deemed related to an existing permitted operations. Per Section 2-5-216, a related project is one which is permitted within 2 years, unless the applicant can demonstrate that the current project is not a reasonably foreseeable consequence of the previous project and not a critical element or integral part of the previous project.

In the previous 2 year period, there were no modifications to the existing sources at this site and only one new permit was issued. The permit was issued to allow replacement of the existing afterburner with a smaller more efficient Regenerative Thermal Oxidizer, A-9. This abatement device replacement, permitted under Application 20058, had no associated increase in emissions since the replacement unit has a smaller firing capacity than the original unit. Also, since the installation of the proposed diesel fire pump is not a critical element or integral part of the afterburner replacement, the two projects are not related projects. Therefore, only the emissions from the diesel fire pump engine have been considered in the health risk assessment.

The ISCST3 air dispersion computer model was used to estimate annual average ambient air concentrations resulting from operation of the diesel fire pump engine. Model runs were based on Travis Air Force Base meteorological data, with emission rate scalars to account for the fact that operations occur during normal working hours and elevated terrain from the Elmira subarea. Model runs were made with both rural and urban dispersion coefficients, with rural being chosen as the most conservative. Stack and building parameters for the analysis were based on information provided by the applicant.

Estimates of residential risk assume exposure to annual average TAC concentrations occur 24 hours per day, 350 days per year, for a 70-year lifetime. Risk estimates for offsite workers assume exposure occurs 8 hours per day, 245 days per year, for 40 years. There are no schools located within 1000 feet of this site, so no risk estimates for students were calculated. The maximum estimated increase in cancer risk due to the diesel PM emissions from the proposed fire pump engine is 0.83 in a million (residential risk). The chronic non-cancer hazard index is 0.0005.

In accordance with Regulation 2, Rule 5, a project is approvable if the project risk does not exceed 10 in a million, the chronic and acute hazard indices do not exceed 1.0, and Toxics Best Available Control Technology (TBACT) is applied to the new/modified sources. Therefore, the risk for the project is considered acceptable. Further, since the project risk does not exceed 1.0 in a million and the chronic hazard index does not exceed 0.20, TBACT is not required.

Major Facility Review, Regulation 2, Rule 6
The requirements of federal operating permit program have been codified in District Regulation 2, Rule 6. This rule requires major and designated facilities to apply for an obtain a Title V federal operating permit.

This facility is currently operating under a Major Facility Review/Title V permit, issued August 16, 2006. The facility became subject to this program due to potential emissions of 10 tons per year or more of glycol ethers, which is a class of organic compounds listed as a hazardous air pollutant (HAP) in Section 112(b) of the Clean Air Act. Glycol ethers are a substantial portion of the organic solvent used in the beverage can coating formulations applied at this facility, however the majority of the glycol ethers in these formulations is ethylene glycol monobutyl ether (EGBE, CAS No. 111-76-2). At the onset of implementation of the Major Facility Review program, EGBE was included in the definition of glycol ethers in Section 112(b), but deletion of this compound as a listed HAP was subsequently proposed and became final on 11/29/2004.

Due to that regulatory action, Rexam no longer has the potential to emit 10 tons per year or more of a single HAP, is no longer considered a major source of HAPs. The facility has been notified that it is eligible to exit the Title V program by obtaining a synthetic minor operating permit. The facility is considering this option. If a synthetic minor operating permit application is not submitted, the renewal of the Major Facility Review permit will include the proposed fire pump engine.

Regulation 3, Fees
The facility has paid the application fees and first year Permit to Operate fee billed under Invoice 2FZ41.

Regulation 6, Rule 1, "Particulate Matter – General Requirements"
Like all sources, the fire pump engine is subject to Regulation 6, Rule 1. Section 6-1-303 applies to S-21 and limits visible emissions to not exceed Ringelmann 2.0 for periods aggregating more than 3 minutes in any hour or equivalent opacity. Section 6-1-305 prohibits public nuisance caused by fallout of visible particulate emissions. The fire pump engine is not expected to produce visible emissions or fallout in violation of these sections.

Regulation 8, Rule 1, "Organic Compounds – General Provisions"
All internal combustion engines are exempt from Regulation 8 per Section 8-1-110.2, therefore none of the rules in Regulation 8 apply to this fire pump engine.

Regulation 9, Rule 1, "Inorganic Gaseous Pollutants – Sulfur Dioxide"
The fire pump engine is subject to Regulation 9, Rule 1. The engine burns diesel fuel and is subject to Section 9-1-304, which prohibits burning of fuel containing more than 0.5% sulfur by weight. The facility is expected to comply with this requirement since only CARB-certified diesel fuel can be used in California, and the sulfur content of CARB certified diesel fuel does not exceed 0.05% by weight.

Regulation 9, Rule 2, "Inorganic Gaseous Pollutants – Hydrogen Sulfide"
The ground level concentration limit on hydrogen sulfide in Section 9-2-301 is 0.06 ppm averaged over 3 minutes or 0.03 ppm averaged over 60 minutes. Hydrogen sulfide is generally identified by its

characteristic rotten egg small and can be detected by its odor at concentrations as low as 0.0005 ppmv. Therefore, H2S emissions are usually detected by smell well before the concentrations approach the limits in Section 9-2-301. Compliance with this rule is expected.

Regulation 9, Rule 8, "Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines"

Regulation 9, Rule 8 limits emissions of NOx and CO from stationary internal combustion engines with a rated output greater than 50 bhp. The proposed fire pump engine is subject to this rule. The exemption in Section 9-8-110.3 (engines fired exclusively on liquid fuels) exempt this source from the requirements of Section 301 through 305, 501, and 503 until January 1, 2012. However, Sections 330, 502, and 530 do apply.

Section 9-8-330 limits discretionary use of the sources to no more than 100 hours in any calendar year. This fire pump engine expected to comply with this limit, as it will be limited to no more than 50 hours of discretionary use per year through permit conditions due to the requirements of the state Air Toxic Control Measure (discussed below). Section 9-8-502.1 requires owners of engines exempted under Section 9-8-110 to maintain monthly records of operating hours and requires retention of these records for a minimum of 24 months. Section 9-8-530 requires owners of emergency standby engines to also maintain records of total operating hours, hours of emergency operation, and the nature of each emergency. The applicant is expected to comply with these recordkeeping requirements, which will be included in the permit conditions.

Stationary Diesel Engine Air Toxics Control Measure, Section 93115, Title 17, CA Code of Regulations

The proposed fire pump engine is subject to the California Air Resources Board Air Toxic Control Measure (ATCM) for stationary diesel engines since it is diesel-fuelled and larger than 50 bhp. It is considered a New Stationary Emergency Standby Diesel-Fuelled Compression Ignition Engine, since it will be installed after January 1, 2005 and meets the definition of Emergency Use, "the pumping of water for fire suppression or protection,"as specified in Section 93115(d)(25)(D).

The fire pump engine is subject to the fuel use restriction in Section 93115(e)(1)(A). This fire pump engine is expected to comply with this requirement by burning only CARB Diesel fuel, and this restriction will be included in the permit conditions for this source.

S-21 also meets the definition of a Direct-Drive Emergency Standby Fire Pump Engine and therefore the operating requirements and emission standards are found in Section 93115(e)(2)(A)(4) of the rule. This section limits operation (other than emergency operation) to no more than the number of hours necessary to comply with the testing requirements of the National Fire Protection Association 25 – "Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 1998 edition. The applicant has indicated that discretionary operation will comply with these testing requirements. The discretionary use limits will be included in the permit conditions for this source.

Further, Section 93115(e)(2)(A)(4) requires fire pump engines to meet the emission standards specified in the Off-Road Compression Ignition Engine Standards for off-road engines, title 13 CCR, section 2423. The proposed model year (2005) fire pump engine made by this manufacturer has been certified to meet the title 13 CCR, section 2423 emission standards under CARB Executive Order U-R-013-0152. The subsequent model year engines are made to the same specifications, and CARB has verified that the Executive Order issued for the 2005 model year engine is valid for the proposed 2008 model year engine.

40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS):
Subpart A, Standards of Performance for New Stationary Sources – General Provisions
Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR Part 60, Subpart IIII applies to compression ignition engines. A new engine manufactured as a certified National Fire Protection Association fire pump engine after July 1, 2006 and which was installed after July 11, 2005 is subject to this rule per Section 60.4200(a)(2)(ii).

Emission Standards: Section 60.4205(c) specifies the emission standards for fire pump engines with a displacement of less than 30 liters per cylinder. S-21 has a displacement of 1.01 liters per cylinder and a rated capacity of 135 hp. The emission standards for model year 2009 and earlier engines with rated capacity of 100 hp or more but less than 175 hp are contained in Table 4 of the regulation and summarized below:

NSPS Subpart IIII Emission Limits

Emissions	*NMHC+NOx, g/kW-hr*	*CO, g/kW-hr*	*PM, g/kW-hr*
Table 4 Emission Standard	***10.5***	***5.0***	***0.80***
S-21 Certified Emissions	***6.4***	***0.7***	***0.12***

Section 60.4211(b) specifies acceptable methods for demonstrating compliance with the emission standards. Per Section 60.4211(b)(1), compliance may be demonstrated through certified emissions. The CARB-certified emissions have been summarized in the table above and comply with the emission standards of this rule.

Operating Restrictions: Section 60.4207(a) limits fuel use to diesel fuel meeting the requirements of 40 CFR 80.510(a). Part 80.510(a) limits the sulfur content of diesel fuel to 500 ppmw and cetane index to 40 or maximum aromatic content to 35%, by volume. CA diesel fuel is limited to 500 ppmw sulfur and 10% by volume aromatic content. As CA diesel is mandated for use in California, compliance with thesefederal fuel restrictions is expected. For an internal combustion engine with a displacement of less than 30 liters per cylinder, beginning 10-1-2010, the maximum sulfur content of allowable fuel will be reduced to 15 ppm (40 CFR 80.510(b) for nonroad diesel fuel).

Section 60.4211(a) requires operation of the engine according to the manufacturer's instructions and Parts 89, 94, and/or 1068 if applicable. Part 89 applies to non-road engines subject to Part 61, Subpart IIII, but contains only general provisions and does not specify additional engine operating restrictions. Part 94 applies to marine engines and Part 1068 applies to manufacturers of nonroad engines, therefore neither apply. Operation in compliance with the manufacturer's instructions is expected.

Section 60.4211(e) allows operation of emergency stationary ICE for maintenance and testing as recommended by federal, state, local government, or the manufacturer, vendor, or insurance company associated with the engine. This discretionary operation is limited to 100

hours per year. Emergency use is not limited. S-21 is expected to comply with this limits, as it is subject to the more stringent 50 hour/year limit in the state ATCM.

<u>Monitoring, Recordkeeping, Reporting</u>: Section 60.4209 requires installation of a non-resettable hour meter prior to startup of the engines. This monitoring will be enforced through permit conditions.

Table 8 lists the applicable general provisions from Subpart A that apply to units regulated by this subpart. All sections from Subpart A apply, except for Sections 60.11 and 60.18 do not apply. Further, Section 60.4214(b) exempts the owner/operator of emergency stationary ICE from the initial notification requirements in Section 60.7. Sections 60.8 and 60.13 apply to regulated units under Subpart IIII, but do not apply to S-21, since this engine does not have a displacement of 30 liters per cylinder or greater.

40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAPs)

There are no subparts under 40 CFR Part 61 that apply to reciprocating internal combustion engines.

40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories/Maximum Achievable Control Technology (MACT) Standards:

Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants – for Stationary Reciprocating Internal Combustion Engines

40 CFR Part 63, Subpart ZZZZ applies to stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This facility is not a major source of HAP emissions, and is therefore an area source of HAP emissions. As S-21 has a capacity less than 500 bhp and was installed after June 12, 2006, the source is considered a new source under this subpart. Section 63.6590(c) specifies that an affected source that is a new or reconstructed, compression ignition, stationary RICE located at an area source must meet the requirements of this subpart by meeting the requirements of 40 CFR Part 60, Subpart IIII. No other requirements apply under this subpart. Therefore, S-21 complies with this Subpart ZZZZ by complying with Subpart IIII, which was addressed above.

40 CFR Part 70, Federal Operating Permit Program (Title V)

The requirements of 40 CFR Part 70 have been codified in District Regulation 2, Rule 6 - see discussion of Rule 2-6 above.

Permit Conditions

The proposed fire pump engine will be subject to the standard permit conditions included below. The existing permit condition limiting emissions from the can coating line will be modified as indicated below in strikeout/underline formatting.

Permit Condition #24495

Rexam Beverage Can Company, P#1665

Permit Application #20859
Permit Conditions for
S-21, Emergency Diesel Fire Pump Engine, Deutz Model DFP4-2012C15, Model Year 2008, 135 bhp

1. Operating for reliability-related activities is limited to 50 hours per year per engine.
(Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)4)

2. The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to show compliance with a District, state, or Federal emission limit, or for reliability-related activites (maintenance and other testing, excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, state, or Federal emission limis is not limited.
(Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)3)

3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated, and properly maintained.
(Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1), BAAQMD Regulation 9-8-530, 40 CFR Part 60.4209)

4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 60 months from the date of entry. Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request:
   a. Total hours of operation for reliability-related activities (maintenance and testing).
   b. Hours of operation for emission testing to show compliance with emission limits.
   c. Hours of operation for emergency support.
   d. For each emergency, a description of the nature of the emergency condition.
   e. Fuel usage for each engine.
   (Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, BAAQMD Regulation 1-441, Regulation 2-6-501)

5. The owner/operator shall operate each emergency standby engine in accordance with the manufacturer's written operating instructions, and reliability-related activities shall be limited to those required to comply with the testing requirements of the National Fire Potection Association 25 – Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.
(Basis: 40 CFR Part 60.4211(a), "Stationary Diesel Engine ATCM" section 93115(e)(2)(A)(4), title 17, CA Code of Regulations)

Permit Condition #391
For Sources: S-1 through 12 (Beverage Can Coating Sources) and
A-9, Regenerative Thermal Oxidizer, MegTech, 4.2 MMBtu/hr, natural gas-fired

EMISSIONS

1. The owner/operator shall ensure that total volatile organic compound (VOC) emissions due to coating usage and clean-up solvent usage at this facility do not exceed 34.4 tons/year. Total Emissions of hazardous air pollutants (HAPs) at this facility shall be less than 10 tons per year for any single HAP and 25 tons per year for any combination of HAPs.

(Basis: Cumulative Increase, 40 CFR 63.3441(b))

VOC ABATEMENT

2. The owner/operator shall ensure that VOC emissions from the following sources shall be collected and controlled by the Regenerative Thermal Oxidizer, A-9, during all periods of operation:
   (Basis: BACT, Regulation 8-11-302)

   Basecoater Pin Ovens (Sources 2 and 8)
   Printer Pin Ovens (Sources 4 and 10)
   Inside Bake Ovens (Sources 6 and 12)
   Enclosed Inside Spray Machine Banks (Sources 5 and 11)
   Including the enclosed doubling boxes between spray machines and vacuum elevators

3. The owner/operator shall ensure that the Basecoater Pin Ovens S-2 and S-8, the Printer Pin Ovens, S-4 and S-10, and the Inside Bake Ovens, S-6 and S-12 are not operated unless ducted and vented as designed to the Regenerative Thermal Oxidizer, A-9. The ducting from each oven shall be equipped with an airflow sweitch electrically connected to the oven control panel. In the event of a loss of airflow due to mechanical failure, the affected oven shall automatically shut down and all can production at the affected line shall cease.
   (Basis: BACT)
4. In order to demonstrate adequate VOC collection at the Inside Spray Machine Banks S-5 and S-11 (as described above), the owner/operator shall operate monitoring devices in the ducting from the inside spray machine banks, the enclosed doubling boxes between spray machines, and the vacuum elevators for each line. A magnahelic gauge or other approved device shall be installed and maintained downstream of each affected exhaust duct to indicate negative pressure at the duct. The owner/operator shall ensure that a minimum vacuum pressure of 0.2 inches of water column (as indicated by the monitoring devices) is maintained throughout the system.
   (Basis: BACT)
5. The owner/operator shall ensure that the VOC emission control efficiency of the A-9, Regenerative Thermal Oxidizer is maintained at a minimum of 95% by weight whenever the inlet concentration of VOC to the incinerator is equal to or greater than 500 ppm, measured as methane. The owner/operator shall be charged for all uncontrolled emissions during periods of Thermal Oxidizer failure towards compliance with Part #1 above.
   (Basis: BACT)
6. The owner/operator shall maintain a minimum temperature of 1600 degreesF at the A-9, Regenerative Thermal Oxidizer to ensure compliance with the abatement efficiency in Part #5 above. The owner/operator may submit a request for an alternate minimum temperature to the District if source testing demonstrates the required control efficiency can be met at a lower temperature, but the owner/operator must ensure that the minimum temperature of 1600 degreesF is maintained at all times when the Thermal Oxidizer is required to be in operation as specified in Part #5, until an alternate minimum temperature is approved by the District in writing.
   (Basis: BACT)
7. In order to insure that a minimum incinerator temperature is maintained at A-9, the owner/operator shall install and operate continuous temperature measuring and recording instrumentation, consisting of at least three thermocouple temperature probes in the Thermal Oxidizer and at least one recording device, which will continuously record the Thermal Oxidizer temperature as measured by each of the three thermocouples.
   (Basis: BACT, Regulation 8-11-504)

8. The minimum temperature requirement in Part #6 shall not apply during an "Allowable Temperature Excursion," provided that the temperature controller setpoint complies with one of the following:
    a. A temperature excursion not exceeding 20 degreesF;
    b. A temperature excursion for a period or periods which when combined are less than or equal to 15 minutes in any hour; or
    c. A temperature excursion for a period or periods which when combined are more than 15 minutes in any hour, provided that all three of the following criteria are met:
        i. The excursion does not exceed 50 degreesF;
        ii. The duration of the excursion does not exceed 24 hours; and
        iii. The total number of such excursions does not exceed 12 per calendar year (or any consecutive 12 month period).

    Two or more excursions great than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit.
    (Basis: Cumulative Increase)
9. For each Allowable Temperature Excursion that exceeds 20 degreesF and 15 minutes in duration, the owner/operator shall keep sufficient records to demonstrate that they meet the qualifying criteria described above. Records shall be retained for a minimum of five years from the date of entry, and shall be made available to the District upon request. Records shall include at least the following information:
    a. Temperature controller setpoint;
    b. Starting date and time, and duration of each Allowable Temperature Excursion;
    c. Measured temperature during each Allowable Temperature Excursion;
    d. Number of Allowable Temperature Excursions per month, and total number for the current calendar year; and
    e. All strip charts or other temperature records

    (Basis: Regulation 2-1-403)
10. For the purposes of Parts #8 and #9, a temperature excursion refers only to temperatures below the limit.
    (Basis: Regulation 2-1-403)
11. The owner/operator shall ensure that the temperature data collected from this instrumentation is maintained in a file which shall be available for District inspection for a period of at least 60 months following the date on which such data or reports are recorded or made.
    (Basis: BACT, Regulation 2-6-501)

RECORDKEEPING AND REPORTING

12a. The owner/operator shall maintain the following data on a daily basis:
(Basis: Cumulative Increase, Regulation 2-6-501)
Operating time of Coating Lines 1 and 2 Can production for each line (cans/day). Amount and type of coating used for Basecoat, Inside Spray and overvarnish. A recorded value from each exhaust duct vacuum monitoring device.

12b. The owner/operator shall maintain the following data on a weekly basis:
(Basis: Cumulative Increase)
Amount of clean-up solvent used,
Amount of Bottom Rim varnish

12c. The owner/operator shall ensure that these records are available for District inspection for a period of at least 60 months following the date which such data or reports are recorded.

NSPS REQUIREMENTS

13. The owner/operator shall submit all notifications (including initial notification of construction and startup date) and reports (including an initial performance report, excess emissions and monitoring system performance reports, semiannual summary reports) as required by 40 CFR Part 60, Subpart WW to EPA Region IX and to the District at the following addresses:

Director, Air Division	Director, Compliance and Enforcement Division
USEPA, Region IX	BAAQMD
75 Hawthorne Street	939 Ellis Street
San Francisco, CA 94105	San Francisco, CA 94109

(Basis: 40 CFR Part 60, Subparts A and WW)

14. The owner/operator shall perform initial and monthly performance tests to demonstrate that A-9, Regenerative Thermal Oxidizer, complies with the abatement efficiency requirement in 40 CFR Part 60, Subpart WW. This test and notification of such test shall be performed in accordance with the requirements in 40 CFR Part 60.8. Notifications of such tests shall be submitted to EPA at the above address and to the District's Source Test Section.
(Basis: 40 CFR Part 60, Subparts A and WW)

Recommendation

I recommend waiving the Authority to Construct and issuing a Permit to Operate for the following source:

S-21, Emergency Diesel Fire Pump Engine, Deutz Model DFP4-2012C15, Model Year 2008, 135 bhp

I also recommend issuance of a Change of Condition for the Condition #391, which applies to the Beverage Can Coating Sources:

S-1, Coater Line 1
S-2, Coater Oven, Line 1
S-3, Printer Line 1
S-4, Printer Oven, Line 1
S-5, Spray Machines Line 1
S-6, Bake Oven, Line 1
S-7, Coater Line 2
S-8, Coater Oven, Line 2
S-9, Printer Line 2
S-10, Printer Oven, Line 2
S-11, Spray Machines Line 2
S-12, Bake Oven, Line 2

_____ _____

Tamiko Endow Date
Air Quality Engineer