

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

Final

MAJOR FACILITY REVIEW PERMIT

Issued To:

**Rexam Beverage Can Company
Site #A1665**

Site Address:

2433 Crocker Circle Drive
Fairfield, CA 94533

Mailing Address:

8770 W. Bryn Mawr Avenue, M.S. 04D
Chicago, IL 60631-3542

Responsible Official

Allan J. Bohner,
Senior Vice President
North America Manufacturing
& Worldwide Engineering
(773) 399-3613

Facility Contact

Dave Rubick,
Plant Manager
(707) 437-6645

Type of Facility:	Beverage Can Manufacturing	BAAQMD Engineering Division Contact:
Primary SIC:	3411	Ted Hull
Product:	Coated and Decorated Aluminum Beverage Cans	

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Jack P. Broadbent
Jack P. Broadbent, Executive Officer/Air Pollution Control Officer

August 16, 2006
Date

TABLE OF CONTENTS

I.	STANDARD CONDITIONS .	3
II.	EQUIPMENT	7
III.	GENERALLY APPLICABLE REQUIREMENTS	10
IV.	SOURCE-SPECIFIC APPLICABLE REQUIREMENTS	13
V.	SCHEDULE OF COMPLIANCE	27
VI.	PERMIT CONDITIONS	27
VII.	APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS	32
VIII.	TEST METHODS	42
IX.	REVISION HISTORY	43
X.	GLOSSARY	44

I. STANDARD CONDITIONS

A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions
(as amended by the District Board on 5/2/01);

SIP Regulation 1 - General Provisions and Definitions
(as approved by EPA through 6/28/99);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
(as amended by the District Board on 12/21/04);

SIP Regulation 2, Rule 1 - Permits, General Requirements
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 12/21/04);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 12/21/04);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99); and

BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03).

B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit was issued on June 27, 2005, and expires on May 31, 2010. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than November 30, 2009 and no earlier than May 31, 2009. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after May 31, 2010.** If the permit renewal has not been issued by May 31, 2010, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (Regulation 2-6-307, 404.2, 407, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)

I. Standard Conditions

4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, nor any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit that the permittee considers to contain proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)

The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (Regulation 2-6-409.20; MOP Volume II, Part 3, §4.11)**C. Requirement to Pay Fees**

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment that is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

I. Standard Conditions

E. Records

1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)
2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry. (Regulation 2-6-501 MOP Volume II, Part 3, §4.7)

F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. The reporting periods for this permit shall be July 1st through December 31st and January 1st through June 30th. Each report is due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

Director of Compliance and Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
Attn: Title V Reports

(Regulation 2-6-502, MOP Volume II, Part 3, §4.7)

G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be July 1st through June 30th. The certification shall be submitted by July 31st of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification should be sent to the Environmental Protection Agency at the following address:

Director of the Air Division
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

I. Standard Conditions

H. Emergency Provisions

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. (MOP Volume II, Part 3, §4.8)
3. The granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement unless the Major Facility Review Permit has been modified pursuant to Regulation 2, Rule 6. (MOP Volume II, Part 3, §4.8)

I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

J. Miscellaneous Conditions

The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

II. EQUIPMENT

Table II A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
S-1	Roller Coater - Line 1	Rutherford	CB 1200	1,762 Cans Per Minute
S-2	Coater Oven - Line 1	Feco Pin, Natural Gas		3.6 MMBTU/hr
S-3	Printer - Line 1	Rutherford	CD 1200	1,762 CPM
S-4	Printer Oven - Line 1	Feco Pin, Natural Gas		3.6 MMBTU/hr
S-5	Spray Machines - Line 1	NCC	773.3	(6) x 294 CPM
S-6	Bake Oven - Line 1	Feco Pin, Natural Gas		3.0 MMBTU/hr
S-7	Roller Coater - Line 2	Rutherford	CB 1200	1,762 CPM
S-8	Coater Oven - Line 2	Feco Pin, Natural Gas		3.6 MMBTU/hr
S-9	Printer - Line 2	Rutherford	CD 1200	1,762 CPM
S-10	Printer Oven - Line 2	Feco Pin, Natural Gas		3.6 MMBTU/hr
S-11	Spray Machines - Line 2	NCC	773.3	(6) x 294 CPM
S-12	Bake Oven - Line 2	Feco Pin, Natural Gas		3.0 MMBTU/hr
S-13	Basecoat Bulk Tank	Fixed Roof		10,000 gallons
S-14	Overvarnish Bulk Tank	Fixed Roof		10,000 gallons
S-15	Inside Spray Bulk Tank	Fixed Roof		10,000 gallons
S-16	Scrap Collection System	BLO-APCO	185	1,000 lb/hr
S-17	Lime Silo	Lime Storage		10 tons/hr max capacity

II. Equipment

Table II B - Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Required Efficiency
A-1	Direct Flame Afterburner	2, 4, 5, 6, 8, 10, 11, 12	BAAQMD Condition #394; Parts 3,4,5,6,7	1375 °F during all periods of operation	95%
A-1	Direct Flame Afterburner	1, 2, 3, 4,5, 6, 7, 8, 9, 10, 11, 12	Regulation 8-11-302	Required for coating usage not complying with 8-11-301	90%
A-1	Direct Flame Afterburner	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	NSPS Subpart WW	As needed	Achieve VOC emission standards of 60.492
A-2	Pulse Jet Baghouse	5, 11	Regulation 6-301		Ringelmann #1 for 3 minutes in any hour
A-2	Pulse Jet Baghouse	5, 11	Regulation 6-310		0.15 gr/dscf
A-3	Vapor Balance System	13	None	N/A	N/A
A-4	Vapor Balance System	14	None	N/A	N/A
A-5	Vapor Balance System	15	None	N/A	N/A
A-6	Scrap Cyclone	16	Regulation 6-301		Ringelmann #1 for 3 minutes in any hour
A-6	Scrap Cyclone	16	Regulation 6-310		0.15 gr/dscf
A-7	Oil Mist Collector	16	Regulation 6-301		Ringelmann #1 for 3 minutes in any hour
A-7	Oil Mist Collector	16	Regulation 6-310		0.15 gr/dscf

II. Equipment

Table II B - Abatement Devices

A-#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Required Efficiency
A-8	Lime Silo Baghouse	17	Regulation 6-301		Ringelmann #1 for 3 minutes in any hour
A-8	Lime Silo Baghouse	17	Regulation 6-310		0.15 gr/dscf

III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit. This section also contains provisions that may apply to temporary sources.

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors.
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full language of SIP requirements is on EPA Region 9's website. The address is: <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>.

NOTE:

There are differences between the current BAAQMD rules and the versions of the rules in the SIP. All sources must comply with both versions of a rule until US EPA has reviewed and approved the District's revision of the regulation.

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y ¹
BAAQMD Regulation 2, Rule 1	General Requirements (8/1/01)	N
BAAQMD 2-1-429	Federal Emissions Statement (6/7/95)	Y
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y ¹
BAAQMD Regulation 5	Open Burning (3/6/02)	Y

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
SIP Regulation 5	Open Burning (9/4/98)	Y ¹
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (6/15/94)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (11/21/01)	N
BAAQMD Regulation 8, Rule 4	Organic Compounds - General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 16	Organic Compounds - Solvent Cleaning Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y ¹
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (2/26/02)	Y ¹
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants – Sulfur Dioxide (6/8/99)	Y ¹
BAAQMD Regulation 11, Rule 1	Hazardous Pollutants - Lead (3/17/82)	N
SIP Regulation 11, Rule 1	Hazardous Pollutants – Lead (9/2/81)	Y ¹
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y ¹
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
40 CFR Part 61, Subpart A	National Emission Standards for Hazardous Air Pollutants – General Provisions (5/28/03)	Y

1. This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved the District’s revision of the regulation.

III. Generally Applicable Requirements

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):
 The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors.
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:
 The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements is on EPA Region 9's website. The address is: <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>. All other text may be found in the regulations themselves.

Table IV-A
Source-Specific Applicable Requirements
S-1, S-7: Roller Coaters, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y ¹	
1-523.3	Reports of Violations	Y ¹	

IV. Source-Specific Applicable Requirements

Table IV-A
Source-Specific Applicable Requirements
S-1, S-7: Roller Coaters, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 11	Organic Compounds – Metal Container, Closure And Coil Coating (11/19/97)		
8-11-302	Emission Control Device Requirement (alternative to coating limits)	Y	
8-11-306	Surface Preparation and Cleanup Solvent	Y	
8-11-402	Operation and Maintenance Plan	Y	
8-11-501	Coating Records	Y	
8-11-504	Afterburner Temperature Monitoring (where applicable)	Y	
NSPS Part 60	Standards of Performance for New Stationary Sources (12/23/71)		
Subpart A	General Provisions	Y	
60.7	Notification and Record Keeping	Y	
60.8 (a)	Initial Performance Test	Y	
60.9	Availability of Information	Y	
60.11 (a)	Compliance with standards and maintenance requirements	Y	
60.12	Circumvention	Y	
60.13 (a)(b)(e)(f)(i)	Monitoring Requirements	Y	
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)		
60.492 (a)	VOC Limit – Two-Piece Can Exterior Basecoat	Y	
60.493 (b)	Monthly Performance Test	Y	
60.494	Monitoring of Operations	Y	
60.495	Reporting and Recordkeeping	Y	
60.496	Test Methods and Procedures	Y	
BAAQMD Cond #391			
part 1	Facility VOC and HAP Limits [Cumulative Increase, 40 CFR 63.3480(b)]	Y	
part 12	Recordkeeping [Cumulative Increase, Regulation 2-1-403]	Y	

IV. Source-Specific Applicable Requirements

- 1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Table IV-B
Source-Specific Applicable Requirements
S-2, S-8: Coater Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y ¹	
1-523.3	Reports of Violations	Y ¹	
BAAQMD Regulation 8, Rule 11	Organic Compounds – Metal Container, Closure And Coil Coating (11/19/97)		
8-11-302	Emission Control Device Requirement (alternative to coating limits)	Y	
8-11-402	Operation and Maintenance Plan	Y	
8-11-504	Afterburner Temperature Monitoring (where applicable)	Y	
NSPS Part 60	Standards of Performance for New Stationary Sources (12/23/71)		
Subpart A	General Provisions		
60.7	Notification and Record Keeping	Y	
60.8 (a)	Initial Performance Test	Y	
60.9	Availability of Information	Y	
60.11 (a)	Compliance with standards and maintenance requirements	Y	

IV. Source-Specific Applicable Requirements

Table IV-B
Source-Specific Applicable Requirements
S-2, S-8: Coater Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.12	Circumvention	Y	
60.13 (a)(b)(e)(f)(i)	Monitoring Requirements	Y	
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)		
60.492(a)	VOC Limits	Y	
60.493 (b)	Monthly Performance Test	Y	
60.494	Monitoring of Operations	Y	
60.495	Reporting and Recordkeeping	Y	
60.496	Test Methods and Procedures	Y	
BAAQMD Cond #391			
part 1	Facility VOC and HAP Limits [Cumulative Increase, 40 CFR 63.3480(b)]	Y	
part 2	Afterburner Requirement [BACT, Regulation 8-11-302]	Y	
part 3	Automatic Oven Shutdown when Airflow is Lost [BACT]	Y	
part 5	Afterburner VOC Control Efficiency [BACT]	Y	
part 6	Incinerator Temperature [BACT]	Y	
part 7	Incinerator Temperature Monitoring/Recording [BACT, Regulation 8-11-504]	Y	
part 8	Allowable temperature excursions [Regulation 2-1-403]	Y	
part 9	Allowable temperature excursion recordkeeping [Regulation 2-1-403]	Y	
part 10	Definition of temperature excursion [Regulation 2-1-403]	Y	
part 11	Incinerator Temperature Recordkeeping [BACT]	Y	
part 12	Recordkeeping [Cumulative Increase, Regulation 2-1-403]	Y	

- 1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-3, S-9: Printers, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y ¹	
1-523.3	Reports of Violations	Y ¹	
BAAQMD Regulation 8, Rule 11	Organic Compounds – Metal Container, Closure And Coil Coating (11/19/97)		
8-11-302	Emission Control Device Requirement (alternative to coating limits)	Y	
8-11-306	Surface Preparation and Cleanup Solvent	Y	
8-11-402	Operation and Maintenance Plan	Y	
8-11-501	Coating Records	Y	
8-11-504	Afterburner Temperature Monitoring (where applicable)	Y	
NSPS Part 60	Standards of Performance for New Stationary Sources (12/23/71)		
Subpart A	General Provisions		
60.7	Notification and Record Keeping	Y	
60.8 (a)	Initial Performance Test	Y	
60.9	Availability of Information	Y	
60.11 (a)	Compliance with standards and maintenance requirements	Y	
60.12	Circumvention	Y	

IV. Source-Specific Applicable Requirements

Table IV-C
Source-Specific Applicable Requirements
S-3, S-9: Printers, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.13 (a)(b)(e)(f)(i)	Monitoring Requirements	Y	
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)		
60.492 (b)	VOC Limit – Two-Piece Can Clear Basecoat and Overvarnish	Y	
60.493 (b)	Monthly Performance Test	Y	
60.494	Monitoring of Operations	Y	
60.495	Reporting and Recordkeeping	Y	
60.496	Test Methods and Procedures	Y	
BAAQMD Cond #391			
part 1	Facility VOC and HAP Limits [Cumulative Increase, 40 CFR 63.3480(b)]	Y	
part 12	Recordkeeping [Cumulative Increase, Regulation 2-1-403]	Y	

- 1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Table IV-D
Source-Specific Applicable Requirements
S-4, S-10: Printer Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	

IV. Source-Specific Applicable Requirements

Table IV-D
Source-Specific Applicable Requirements
S-4, S-10: Printer Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y ¹	
1-523.3	Reports of Violations	Y ¹	
BAAQMD Regulation 8, Rule 11	Organic Compounds – Metal Container, Closure And Coil Coating (11/19/97)		
8-11-302	Emission Control Device Requirement (alternative to coating limits)	Y	
8-11-402	Operation and Maintenance Plan	Y	
8-11-504	Afterburner Temperature Monitoring (where applicable)	Y	
NSPS Part 60	Standards of Performance for New Stationary Sources (12/23/71)		
Subpart A	General Provisions		
60.7	Notification and Record Keeping	Y	
60.8 (a)	Initial Performance Test	Y	
60.9	Availability of Information	Y	
60.11 (a)	Compliance with standards and maintenance requirements	Y	
60.12	Circumvention	Y	
60.13 (a)(b)(e)(f)(i)	Monitoring Requirements	Y	
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)		
60.492(b)	VOC Limits	Y	
60.493 (b)	Monthly Performance Test	Y	
60.494	Monitoring of Operations	Y	
60.495	Reporting and Recordkeeping	Y	
60.496	Test Methods and Procedures	Y	
BAAQMD Cond #391			

IV. Source-Specific Applicable Requirements

Table IV-D
Source-Specific Applicable Requirements
S-4, S-10: Printer Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 1	Facility VOC and HAP Limits [Cumulative Increase, 40 CFR 63.3480(b)]	Y	
part 2	Afterburner Requirement [BACT, Regulation 8-11-302]	Y	
part 3	Automatic Oven Shutdown when Airflow is Lost [BACT]	Y	
part 5	Afterburner VOC Control Efficiency [BACT]	Y	
part 6	Incinerator Temperature [BACT]	Y	
part 7	Incinerator Temperature Monitoring/Recording [BACT, Regulation 8-11-504]	Y	
part 8	Allowable temperature excursions [Regulation 2-1-403]	Y	
part 9	Allowable temperature excursion recordkeeping [Regulation 2-1-403]	Y	
part 10	Definition of temperature excursion [Regulation 2-1-403]	Y	
part 11	Incinerator Temperature Recordkeeping [BACT]	Y	
part 12	Recordkeeping [Cumulative Increase, Regulation 2-1-403]	Y	

- 1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

Table IV-E
Source-Specific Applicable Requirements
S-5, S-11: Inside Spray Machines, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	

IV. Source-Specific Applicable Requirements

Table IV-E
Source-Specific Applicable Requirements
S-5, S-11: Inside Spray Machines, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y ¹	
1-523.3	Reports of Violations	Y ¹	
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann #1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 8, Rule 11	Organic Compounds – Metal Container, Closure And Coil Coating (11/19/97)		
8-11-302	Emission Control Device Requirement (alternative to coating limits)	Y	
8-11-306	Surface Preparation and Cleanup Solvent	Y	
8-11-402	Operation and Maintenance Plan	Y	
8-11-501	Coating Records	Y	
8-11-504	Afterburner Temperature Monitoring (where applicable)	Y	
NSPS Part 60	Standards of Performance for New Stationary Sources (12/23/71)		
Subpart A	General Provisions		
60.7	Notification and Record Keeping	Y	
60.8 (a)	Initial Performance Test	Y	
60.9	Availability of Information	Y	
60.11 (a)	Compliance with standards and maintenance requirements	Y	
60.12	Circumvention	Y	
60.13 (a)(b)(e)(f)(i)	Monitoring Requirements	Y	
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)		

IV. Source-Specific Applicable Requirements

Table IV-E
Source-Specific Applicable Requirements
S-5, S-11: Inside Spray Machines, Line 1 & Line 2

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.492 (c)	VOC Limit – Two-Piece Can Inside Spray	Y	
60.493 (b)	Monthly Performance Test	Y	
60.494	Monitoring of Operations	Y	
60.495	Reporting and Recordkeeping	Y	
60.496	Test Methods and Procedures	Y	
BAAQMD Cond #391			
part 1	Facility VOC and HAP Limits [Cumulative Increase, 40 CFR 63.3480(b)]	Y	
part 4	Exhaust Duct Vacuum Pressure [BACT]	Y	
part 5	Afterburner VOC Control Efficiency [BACT]	Y	
part 6	Incinerator Temperature [BACT]	Y	
part 7	Incinerator Temperature Monitoring/Recording [BACT, Regulation 8-11-504]	Y	
part 8	Allowable temperature excursions [Regulation 2-1-403]	Y	
part 9	Allowable temperature excursion recordkeeping [Regulation 2-1-403]	Y	
part 10	Definition of temperature excursion [Regulation 2-1-403]	Y	
part 11	Incinerator Temperature Recordkeeping [BACT]	Y	
part 12	Recordkeeping [Cumulative Increase, Regulation 2-1-403]	Y	
BAAQMD Cond #16547			
part 1	Particulate Abatement Requirement [Regulation 2-1-403]	Y	
part 2	Quarterly Baghouse Inspection [Regulation 2-1-403]	Y	
part 3	Recordkeeping [Regulation 2-6-501]	Y	

1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

IV. Source-Specific Applicable Requirements

Table IV-F
Source-Specific Applicable Requirements
S-6, S-12: Bake Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/2/01)		
1-523	Parametric Monitoring and Recordkeeping Procedures	N	
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	
1-523.2	Limit on duration of inoperation	Y	
1-523.3	Reporting requirement for violations of any applicable limits	N	
1-523.4	Records of inoperation, tests, calibrations, adjustments, & maintenance	Y	
1-523.5	Maintenance and calibration	N	
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-523	Parametric Monitoring and Recordkeeping Procedures	Y ¹	
1-523.3	Reports of Violations	Y ¹	
BAAQMD Regulation 8, Rule 11	Organic Compounds – Metal Container, Closure And Coil Coating (11/19/97)		
8-11-302	Emission Control Device Requirement (alternative to coating limits)	Y	
8-11-402	Operation and Maintenance Plan	Y	
8-11-504	Afterburner Temperature Monitoring (where applicable)	Y	
NSPS Part 60	Standards of Performance for New Stationary Sources (12/23/71)		
Subpart A	General Provisions	Y	
60.7	Notification and Record Keeping	Y	
60.8 (a)	Initial Performance Test	Y	
60.9	Availability of Information	Y	
60.11 (a)	Compliance with standards and maintenance requirements	Y	
60.12	Circumvention	Y	
60.13 (a)(b)(e)(f)(i)	Monitoring Requirements	Y	
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)		
60.492(c)	VOC Limits	Y	

IV. Source-Specific Applicable Requirements

Table IV-F
Source-Specific Applicable Requirements
S-6, S-12: Bake Ovens

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.493 (b)	Monthly Performance Test	Y	
60.494	Monitoring of Operations	Y	
60.495	Reporting and Recordkeeping	Y	
60.496	Test Methods and Procedures	Y	
BAAQMD Cond #391			
part 1	Facility VOC and HAP Limits [Cumulative Increase, 40 CFR 63.3480(b)]	Y	
part 2	Afterburner Requirement [BACT, Regulation 8-11-302]	Y	
part 3	Automatic Oven Shutdown when Airflow is Lost [BACT]	Y	
part 5	Afterburner VOC Control Efficiency [BACT]	Y	
part 6	Incinerator Temperature [BACT]	Y	
part 7	Incinerator Temperature Monitoring/Recording [BACT, Regulation 8-11-504]	Y	
part 8	Allowable temperature excursions [Regulation 2-1-403]	Y	
part 9	Allowable temperature excursion recordkeeping [Regulation 2-1-403]	Y	
part 10	Definition of temperature excursion [Regulation 2-1-403]	Y	
part 11	Incinerator Temperature Recordkeeping [BACT]	Y	
part 12	Recordkeeping [Cumulative Increase, Regulation 2-1-403]	Y	

- 1 This section has been removed from BAAQMD Regulations because it has been superseded. Nevertheless, the source must comply with this regulation until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

IV. Source-Specific Applicable Requirements

Table IV-G
Source-Specific Applicable Requirements
S-13, S-14, S-15: Storage Tanks; Basecoat, Overvarnish, Inside Spray

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 8, Rule 5	Storage of Organic Liquids (11/27/02)		
8-5-301	Storage Tanks Control Requirements (Aboveground Tanks >9,906 gallons to <19,803 gallons)	Y	
8-5-302	Requirements for Submerged Fill Pipes	Y	
8-5-501.1	Records (Fixed Roof Tanks)	Y	

Table IV-H
Source-Specific Applicable Requirements
S-16: Scrap Collection System

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann #1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-311	Process Weight Limitation	Y	
6-401	Appearance of Emissions	Y	

IV. Source-Specific Applicable Requirements

Table IV-I
Source-Specific Applicable Requirements
S-17: Lime Silo

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (12/19/90)		
6-301	Ringelmann #1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-311	Process Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Cond #16548			
part 1	Particulate Abatement Requirement [Regulation 2-1-403]	Y	
part 2	Annual Visible Emissions Inspection [Regulation 2-1-403]	Y	
part 3	Recordkeeping [Regulation 1-441]	Y	

V. SCHEDULE OF COMPLIANCE

The permit holder shall continue to comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

Condition #391

For Sources: 1 through 12 (Beverage Can Coating Sources)

EMISSIONS

1. Total VOC emissions due to coating usage and clean-up solvent usage at this facility shall not exceed 39.2 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 63.3481(b))

VOC ABATEMENT

2. VOC and HAP emissions from the following sources shall be collected and controlled by a direct flame incineration afterburner 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 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 shall not be operated unless ducted and vented as designed to the Direct Flame Afterburner A-1. The ducting from each oven shall be equipped with an airflow switch 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)

VI. Permit Conditions

Condition #391

For Sources: 1 through 12 (Beverage Can Coating Sources)

4. In order to demonstrate adequate VOC and HAP collection at the Inside Spray Machine Banks S-5 and S-11 (as described above), monitoring devices shall be installed 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. A minimum vacuum pressure of 0.2 inches of water column (as indicated by the monitoring devices) shall be maintained throughout the system. The vacuum pressure from each exhaust duct monitoring device shall be recorded on a daily basis. (basis: BACT)
5. The VOC emission control efficiency of the incinerator shall be maintained at a minimum of 95% whenever the inlet concentration of VOC to the incinerator is equal to or greater than 500 ppm, measured as methane. The permit holder shall be charged for all uncontrolled emissions during periods of afterburner failure towards compliance with Part #1 above. (basis: BACT)
6. A minimum incinerator temperature of 1375 °F shall be maintained at all times when the incinerator is required to be in operation as specified in Part #5. (basis: BACT)
7. In order to insure that a minimum average incinerator temperature of 1375 °F is maintained, the incinerator shall be equipped with continuous temperature measuring and recording instrumentation, consisting of at least three thermocouple temperature probes in the incinerator and at least one recording device, which will continuously record the incinerator temperature as measured by each of the three thermocouples. (basis: BACT, Regulation 8-11-504)
8. The temperature limit in part 6 shall not apply during an “Allowable Temperature Excursion”, provided that the temperature controller setpoint complies with the temperature limit. An Allowable Temperature Excursion is one of the following:

VI. Permit Conditions

Condition #391

For Sources: 1 through 12 (Beverage Can Coating Sources)

- a. A temperature excursion not exceeding 20 degrees F; or
- 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 degrees F;
 - 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 greater than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit. (basis: Regulation 2-1-403)

9. For each Allowable Temperature Excursion that exceeds 20 degrees F. and 15 minutes in duration, the Permit Holder 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.
11. The temperature data collected from this instrumentation shall be 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)

Condition #391

VI. Permit Conditions

For Sources: 1 through 12 (Beverage Can Coating Sources)

RECORDKEEPING

12. In order to demonstrate compliance with the above requirements, the permit holder shall keep the following records in a District approved log:
 - a. A complete list of all coatings and organic solvents used at Coating Lines 1 and 2. This list shall include the overall VOC content and the volume fraction of each organic HAP constituent for each coating used.
 - b. Daily records of the total amount of each coating and each organic solvent used. From this, the total mass of VOC used shall be derived.
 - c. Daily records of the total mass of VOC assumed to be captured and sent to the A-1 Afterburner.
 - d. Daily totals of VOC emissions (after abatement) from Coating Lines 1 and 2, summarized on a monthly basis.
 - e. The total mass of each organic HAP present in the coatings and solvents used on a monthly basis.
 - f. Monthly records of the total amount of each organic HAP assumed to be captured and sent to the A-1 Afterburner.
 - g. Monthly totals of the calculated abated emissions for each organic HAP present.

These records shall be kept on site and made available for inspection by District personnel upon request for at least 60 months from the date on which a record was made. (basis: Cumulative Increase, Regulation 2-1-403)

Condition #16547

For Sources 5 and 11, Inside Spray Machines, Line 1 & Line 2

1. All particulate matter emissions from these sources shall be routed to A2, Pulse Jet Baghouse. (basis: Regulation 2-1-403)
2. The baghouse shall be inspected quarterly to ensure proper operation. The following items shall be checked: (basis: Regulation 2-1-403)

VI. Permit Conditions

Condition #16547

For Sources 5 and 11, Inside Spray Machines, Line 1 & Line 2

- a. The baghouse exhaust shall be checked for evidence of particulate breakthrough. If breakthrough is evident from dust buildup in the duct, the filter bags shall be checked for any tears, holes, abrasions, and scuffs, and replaced as needed.
 - b. All hoppers shall be discharged in a timely manner.
 - c. The pulsejet cleaning system shall be maintained and operated in accordance with the manufacturer's recommendations.
3. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made. (basis: Regulation 2-6-501)
- a. Records of all inspections and all maintenance work including bag replacement for the baghouse. Records of each inspection shall consist of a log containing the date of inspection and the initials of the personnel that inspects the baghouse.

Condition #16548

For Source 17, Lime Silo

1. Particulate matter emissions during loading operations from Source 17, Lime Silo, shall be controlled by A8, Lime Silo Baghouse. (basis: Regulation 2-1-403)
2. A8, Lime Silo Baghouse, shall be checked for visible emissions on an annual basis. The visible emissions check shall take place while the equipment is operating and during daylight hours. If any visible emissions are detected, the operator shall take corrective action, and check for visible emissions during the next loading event. If no visible emissions are detected, the operator shall continue to check for visible emissions every year. (basis: Regulation 2-6-501)
3. The operator shall keep records of all visible emissions checks, the person performing the check, and all maintenance performed on A-8, Lime Silo Baghouse. The records shall be retained for five (5) years and shall be made available to District personnel upon request. (basis: Regulation 2-6-501)

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

Table VII-A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-7: Roller Coaters, Line 1 & Line 2

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 8-11-302 (alternative to 8-11-301.3)	Y		Abatement Device efficiency $\geq 90\%$	BAAQMD 8-11-504	C	Temperature of incineration unit
VOC	NSPS Subpart WW, 60.492 (a)	Y		Exterior Base Coat: 0.29 kilogram of VOC per liter (2.42 lb/gal) of coating solids	NSPS Subpart WW, 60.493 (b)	P/M	Coating records, Initial performance test, Monthly operating parameters

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-7: Roller Coaters, Line 1 & Line 2

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Condition #391, part 1	Y		39.2 tons/yr, facility limit	Condition #391, part 12	P/D	Daily calculation of VOC emissions from Coating Lines 1 and 2
HAP	Condition #391, part 1	Y		<10 tons/yr, single HAP and <25 tons/yr, any combination of HAPs	Condition #391, part 12	P/M	Monthly calculation of HAP emissions from Coating Lines 1 and 2

Table VII-B
Applicable Limits and Compliance Monitoring Requirements
S-2, S-8: Coater Ovens

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC	BAAQMD 8-11-302 (alternative to 8-11-301.3)	Y		Abatement Device efficiency $\geq 90\%$	BAAQMD 8-11-504	C	Temperature of incineration unit
	NSPS Subpart WW, 60.492 (a)	Y		Exterior Base Coat: 0.29 kilogram of VOC per liter (2.42 lb/gal) of coating solids	NSPS Subpart WW, 60.493 (b)	P/M	Coating records, Initial performance test, Monthly operating parameters

VII. Applicable Limits & Compliance Monitoring Requirements

**Table VII-B
 Applicable Limits and Compliance Monitoring Requirements
 S-2, S-8: Coater Ovens**

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Condition #391, part 1	Y		39.2 tons/yr, facility limit	Condition #391, part 12	P/D	Daily calculation of VOC emissions from Coating Lines 1 and 2
	Condition #391, part 5	Y		Abatement Device efficiency $\geq 95\%$	Condition #391, part 7	C	Temperature of incineration unit
	Condition #391, part 6	Y		Minimum Incinerator Temperature of 1375 degrees F	Condition #391, part 7	C	Temperature of incineration unit
HAP	Condition #391, part 1	Y		<10 tons/yr, single HAP and <25 tons/yr, any combination of HAPs	Condition #391, part 12	P/M	Monthly calculation of HAP emissions from Coating Lines 1 and 2
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-C
Applicable Limits and Compliance Monitoring Requirements
S-3, S-9: Printers, Line 1 & Line 2

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 8-11-302 (alternative to 8-11-301.3, 301.10)	Y		Abatement Device efficiency $\geq 90\%$	BAAQMD 8-11-504	C	Temperature of incineration unit
VOC	NSPS Subpart WW, 60.492 (b)	Y		Overvarnish: 0.46 kilogram of VOC per liter (3.84 lb/gal) of coating solids	NSPS Subpart WW, 60.493 (b)	P/M	Coating records, Initial performance test, Monthly operating parameters
	Condition #391, part 1	Y		39.2 tons/yr, facility limit	Condition #391, part 12	P/D	Daily calculation of VOC emissions from Coating Lines 1 and 2
HAP	Condition #391, part 1	Y		<10 tons/yr, single HAP and <25 tons/yr, any combination of HAPs	Condition #391, part 12	P/M	Monthly calculation of HAP emissions from Coating Lines 1 and 2
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-D
Applicable Limits and Compliance Monitoring Requirements
S-4, S-10: Printer Ovens

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
VOC	BAAQMD 8-11-302 (alternative to 8-11-301.3, 301.10)	Y		Abatement Device efficiency $\geq 90\%$	BAAQMD 8-11-504	C	Temperature of incineration unit
	NSPS Subpart WW, 60.492 (b)	Y		Overvarnish / Clear Basecoat: 0.46 kilogram of VOC per liter (3.84 lb/gal) of coating solids	NSPS Subpart WW, 60.493 (b)	P/M	Coating records, Initial performance test, Monthly operating parameters
	Condition #391, part 1	Y		39.2 tons/yr, facility limit	Condition #391, part 12	P/D	Daily calculation of VOC emissions from Coating Lines 1 and 2
VOC	Condition #391, part 5	Y		Abatement Device efficiency $\geq 95\%$	Condition #391, part 7	C	Temperature of incineration unit
	Condition #391, part 6	Y		Minimum Incinerator Temperature of 1375 degrees F	Condition #391, part 7	C	Temperature of incineration unit
HAP	Condition #391, part 1	Y		<10 tons/yr, single HAP and <25 tons/yr, any combination of HAPs	Condition #391, part 12	P/M	Monthly calculation of HAP emissions from Coating Lines 1 and 2

VII. Applicable Limits & Compliance Monitoring Requirements

**Table VII-D
 Applicable Limits and Compliance Monitoring Requirements
 S-4, S-10: Printer Ovens**

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

**Table VII-E
 Applicable Limits and Compliance Monitoring Requirements
 S-5, S-11: Inside Spray Machines, Line 1 & Line 2**

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 8-11-302 (alternative to 8-11-301.4)	Y		Abatement Device efficiency $\geq 90\%$	BAAQMD 8-11-504	C	Temperature of incineration unit
	NSPS Subpart WW, 60.492(c)	Y		Inside Spray: 0.89 kilogram of VOC per liter (7.43 lb/gal) of coating solids	NSPS Subpart WW, 60.493 (b)	P/M	Coating records, Initial performance test, Monthly operating parameters
VOC	Condition #391, part 1	Y		39.2 tons/yr, facility limit	Condition #391, part 12	P/D	Daily calculation of VOC emissions from Coating Lines 1 and 2

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-E
Applicable Limits and Compliance Monitoring Requirements
S-5, S-11: Inside Spray Machines, Line 1 & Line 2

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	Condition #391, part 4	Y		Minimum Vacuum Pressure, 0.2 inches of water column (gauge)	Condition #391, part 4	P/D	Ventilation System negative pressure monitoring
	Condition #391, part 5	Y		Abatement Device efficiency $\geq 95\%$	Condition #391, part 4	P/D	Ventilation System negative pressure monitoring
	Condition #391, part 5	Y		Abatement Device efficiency $\geq 95\%$	Condition #391, part 7	C	Temperature of incineration unit
	Condition #391, part 6	Y		Minimum Incinerator Temperature of 1375 degrees F	Condition #391, part 7	C	Temperature of incineration unit
HAP	Condition #391, part 1	Y		<10 tons/yr, single HAP and <25 tons/yr, any combination of HAPs	Condition #391, part 12	P/M	Monthly calculation of HAP emissions from Coating Lines 1 and 2
Opacity	Regulation 6-301	Y		Ringelmann 1.0		N	
	Regulation 6-310	Y		0.15 gr/dscf	Condition #16547, part 2	P/Q	Baghouse Inspection
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-F
Applicable Limits and Compliance Monitoring Requirements
S-6, S-12: Bake Ovens

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD 8-11-302 (alternative to 8-11-301.4)	Y		Abatement Device efficiency $\geq 90\%$	BAAQMD 8-11-504	C	Temperature of incineration unit
	NSPS Subpart WW, 60.492 (c)	Y		Inside Spray Coat: 0.89 kilogram of VOC per liter (7.43 lb/gal) of coating solids	NSPS Subpart WW, 60.493 (b)	P/M	Coating records, Initial performance test, Monthly operating parameters
	Condition #391, part 1	Y		39.2 tons/yr, facility limit	Condition #391, part 12	P/D	Daily calculation of VOC emissions from Coating Lines 1 and 2
	Condition #391, part 5	Y		Abatement Device efficiency $\geq 95\%$	Condition #391, part 7	C	Temperature of incineration unit
VOC	Condition #391, part 6	Y		Minimum Incinerator Temperature of 1375 degrees F	Condition #391, part 7	C	Temperature of incineration unit
HAP	Condition #391, part 1	Y		<10 tons/yr, single HAP and <25 tons/yr, any combination of HAPs	Condition #391, part 12	P/M	Monthly calculation of HAP emissions from Coating Lines 1 and 2

VII. Applicable Limits & Compliance Monitoring Requirements

**Table VII-F
 Applicable Limits and Compliance Monitoring Requirements
 S-6, S-12: Bake Ovens**

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.2	Y		15 consecutive days/incident and 30 calendar days/12 month period	BAAQMD 1-523.4	P/D	Operating Records for All Parametric Monitors

**Table VII-G
 Applicable Limits and Compliance Monitoring Requirements
 S-16, Scrap Collection System**

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	Regulation 6-301	Y		Ringelmann 1.0		N	
	Regulation 6-310	Y		0.15 gr/dscf		N	
FP	BAAQMD Regulation 6-311	Y		2.7 lb/hr (throughput = 1,000 lb/hr)		N	

VII. Applicable Limits & Compliance Monitoring Requirements

Table VII-H
Applicable Limits and Compliance Monitoring Requirements
S-17, Lime Silo

Type of Limit	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	Regulation 6-301	Y		Ringelmann 1.0	Condition #16548, part 2, 3	P/A	Visible Emissions Checks, Records for S-17
	Regulation 6-310	Y		0.15 gr/dscf		N	
FP	BAAQMD Regulation 6-311	Y		16.6 lb/hr (throughput = 16,000 lb/hr)		N	

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII - Applicable Emission Limits & Compliance Monitoring Requirements.

**Table VIII
 Test Methods**

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulate; or USEPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 6-311	Process Weight Rate Based Emissions Limits	Manual of Procedures, Volume IV, ST-15, Particulates Sampling, or Calculate Emissions in Accordance with EPA AP-42 Procedures
BAAQMD 8-11-302	Emission Control Device Limitation	Manual of Procedures, Volume IV, ST-7, "Organic Compounds" or EPA Method 25 "Determination of Total Gaseous Nonmethane Organic Emissions as Carbon" or 25A "Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer"
BAAQMD Cond. #391, part 4	Incinerator Abatement Control Efficiency	Manual of Procedures, Volume IV, ST-7, "Organic Compounds" or EPA Method 25 "Determination of Total Gaseous Nonmethane Organic Emissions as Carbon" or 25A "Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer"
NSPS Subpart WW	Standards of Performance for the Beverage Can Surface Coating Industry (8/25/83)	
60.492	Standards for VOCs	EPA Method 24 "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings"; or Approved Equivalent or Alternative Method

IX. REVISION HISTORY

Initial Permit Issuance (Application #16422):	July 28, 1999
Administrative Amendment (No Application): Facility name changed from American National Can to Rexam Beverage Can Company:	February 19, 2003
Title V Renewal (Application #8913):	June 27, 2005
Minor Permit Revision (Application #11891) Incinerator temperature requirement lowered from 1450 to 1375 degrees F based on source test results.	August 16, 2006

X. 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.

VI. Test Methods (continued)

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 $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$. 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.

VI. Test Methods (continued)

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.

VI. Test Methods (continued)

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.

VI. Test Methods (continued)

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 SO₂.

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 NO_x 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 NO_x compounds to nitrogen gas.

VI. Test Methods (continued)

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

VI. Test Methods (continued)

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
≤	=	less than or equal to
≥	=	greater than or equal to