

Bay Area Air Quality Management District

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

**Permit Evaluation
and
Statement of Basis
for Initial
MAJOR FACILITY REVIEW PERMIT**

**for
Commercial Pattern, Inc.
Facility # A6499**

Facility Address:
3162 Baumberg Avenue
Hayward, CA 94545

Mailing Address:
3162 Baumberg Avenue
Hayward, CA 94545

November 2004

Application Engineer: Donald Van Buren
Plant Engineer: Donald Van Buren

Application #7629

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Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit,” as defined by BAAQMD Regulation 2-6-218, of more than 10 tons per year of a hazardous air pollutant.

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.

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 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 A6499.

B. Facility Description

Commercial Pattern, Inc. manufactures transit bus components, which are used elsewhere in the manufacturer of transit buses. The transit bus components are made from reinforced plastic composites. Emissions of the facility are primarily volatile organic compounds (VOC). Styrene, which is both a VOC and a hazardous air pollutant, is the main pollutant. Acetone is used for cleanup and is also emitted. Acetone is considered both a VOC and a Non-Precursor Organic Compound by the District and is considered to not be a VOC by the US EPA.

Reinforced plastic composites consist of a mixture of fibrous reinforcement that provides strength and a plastic matrix that binds and protects the reinforcement. Composites are formed (laid up) in molds as laminates (layers of matrix and reinforcement) or cast in molds as homogeneous mixtures. Fiberglass is used as reinforcement material. Reinforcement may be incorporated into or within products in three forms: as randomly oriented chopped fibers, woven cloth, or fiber bundles (roving). Plastic matrix is formed from the curing (chemical reaction) of the liquid resin mixture, which contains a blend of resins (unconnected plastic subunits), monomers (connecting links between the subunits), and various agents that promote curing and affect the properties of the resin mix. Fillers may also be added to a resin mix to improve the fire rating or other physical characteristics. During the curing process, the resins polymerize (connect through monomer cross-linkage) to form a tough solid plastic.

The facility has one permitted source for their reinforced plastic composite operation, a fiberglass operation source. This source includes gelcoat application, spray and manually applied polyester resin in molds and cleanup solvent except exempt cold cleaners.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. 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. 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.

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

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., S24).

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

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 unpermitted significant sources at this facility.

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 except exempt sources have not been included in the permit.

The exempt sources include a solvent recycler and small solvent cold cleaners. Commercial Pattern uses a solvent recycling system, which is exempt from permitting by BAAQMD Regulation 2, Permits, Rule 1, General Requirements, Section 118.8, to recycle acetone for use on-site. Commercial Pattern also uses small solvent cold cleaners containing acetone for cleaning tools. These are exempt from permitting by BAAQMD Regulation 2, Permits, Rule 1, General Requirements, Section 118.6. Since acetone is a VOC as defined by the District but not a HAP as defined by the US EPA, an exempt source is a significant source if the potential to emit acetone exceeds 2 tons per year. The potential emission of acetone from the solvent recycler is considered to be less than 2 tons per year since acetone is recycled to be reused onsite. The potential emission of acetone from each small solvent cold cleaner is also considered to be less than 2 tons per year since the throughput for each solvent cold cleaner is expected to be less than 2 tons per year.

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 pursuant to the definition in BAAQMD Rule 2-6-239.

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:

- District Rules
- 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.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)

- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- 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

Compliance Assurance Monitoring - The facility is not subject to Compliance Assurance Monitoring (CAM, 40 CFR 68) because there are no abatement devices.

Applicability of 40CFR Part 63, Subpart WWWW – NESHAPS - The facility is subject to the requirements of 40 CFR Part 63, Subpart WWWW – NESHAPS: Reinforced Plastic Composites Production. This rule became effective on April 21, 2003. This rule regulates production and ancillary processes used to manufacture products with thermoset resins and gel coats. Reinforced plastic composites production facilities emit hazardous air pollutants, such as styrene, etc., which have adverse health effects. The NESHAP will also implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources in this category to meet HAP emission standards. Since the facility is an existing facility with permitted HAP emissions greater than 10 tons per year but less than 100 tons per year, the facility must comply with the standards in 40 CFR Part 63.5805 (a). These standards can be met with the use of compliant resins and gel coats as allowed by 40 CFR Part 63.5810 (d). The facility does not need to abate HAP emissions to comply.

Flexibility to use NPOCs but not ODCs - Although the only NPOC currently used at the facility is acetone, permit conditions provide the permit holder an option to use other NPOCs. A new condition is added to prohibit the use of ozone depleting compounds to ensure that additional NESHAP requirements are not triggered.

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 over the past year and has no records of compliance problems at this facility during the past year. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

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.

Conditions that are obsolete or that have no regulatory basis have been deleted from the permit.

Conditions have also been deleted due to the following:

- Redundancy in record-keeping requirements.
- Redundancy in other conditions, regulations and rules.
- The condition has been superseded by other regulations and rules.
- The equipment has been taken out of service or is exempt.
- The event has already occurred (e.g., initial or start-up source tests).

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 which 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.

A new part has been added to Permit Condition 9997 to require daily air filter inspection and repair if required to ensure compliance with the opacity standard and filterable particulate standards in Regulation 6. We consider this additional monitoring to be good industrial practice.

Although the only NPOC used at the facility is acetone, permit conditions provide the permit holder an option to use other NPOCs. A new part has been added to Permit Condition 9997 to prohibit the use of ozone depleting compounds to ensure that additional NESHAP requirements are not triggered.

Additionally, a statement has been added to several parts of Permit Condition 9997 to ensure that it is clear that the conditions do not regulate small solvent cold cleaner sources exempt from permit requirements. Small solvent cold cleaners that have a surface area of less than one square foot and/or contain less than one gallon of solvent are exempt from BAAQMD permit requirements by Regulation 2, Permits, Rule 1, General Requirements, Section 118.6.

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 for the requirements of BAAQMD Regulation 8, Rule 50, and BAAQMD Condition #9997. However, the District has added a new part to Permit Condition 9997 to require daily air filter inspection and repair if required to ensure compliance with the opacity standard and filterable particulate standards in Regulation 6. It is presumed that the monitoring imposed by 40 CFR 63, Subpart WWW is sufficient.

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. They are not applicable requirements.

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

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

A November 5, 2004 office memorandum from the Director of Compliance and Enforcement, to the Director of Engineering Services, presents a review of the compliance record of Commercial Pattern, Inc. (Site #: A6499). The Compliance and Enforcement Division staff has reviewed the records for Commercial Pattern, Inc. for the period between October 1, 2003 through September 30, 2004. This review was initiated as part of the District evaluation of an application by Commercial Pattern, Inc. for a Title V permit. During the period subject to review, activities known to the District include:

- There were no Notices of Violation issued during this review period.
- The District did not receive any complaints.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.

- There were no monitor excesses or equipment breakdowns reported or documented by District staff.

The owner certified that all equipment was operating in compliance on May 28, 2003. No non-compliance issues have been identified to date.

F. Differences between the Application and the Proposed Permit:

The Title V permit application was originally submitted on May 29, 2003. This version is the basis for constructing the proposed Title V permit. Changes to the permit conditions include the following:

A new part has been added to Permit Condition 9997 to require daily air filter inspection and repair if required to ensure compliance with the opacity standard and filterable particulate standards in Regulation 6.

Although the only NPOC used at the facility is acetone, permit conditions provide the permit holder an option to use other NPOCs. A new part has been added to Permit Condition 9997 to prohibit the use of ozone depleting compounds to ensure that additional NESHAP requirements are not triggered.

Additionally, a statement has been added to several parts of Permit Condition 9997 to ensure that it is clear that the conditions do not regulate small solvent cold cleaner sources exempt from permit requirements. (Small solvent cold cleaners that have a surface area of less than one square foot and/or contain less than one gallon of solvent are exempt from BAAQMD permit requirements by Regulation 2, Permits, Rule 1, General Requirements, Section 118.6.)

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APPENDIX A
BAAQMD COMPLIANCE REPORT

APPENDIX B
GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

Basis

The underlying authority which allows the District to impose requirements.

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CEQA

California Environmental Quality Act

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

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

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 (MACT), and Part 72 (Permits Regulation, Acid Rain), 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.

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 40 CFR Part 63.

Major Facility

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants 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 Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC

Non-methane Hydrocarbons (Same as NMOC)

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x

Oxides of nitrogen.

NPOC

Non-Precursor Organic Compound, as defined in BAAQMD Regulation 2, General Requirements, Rule 1, Permits, Section 207

NSPS

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

NSR

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compound, as defined in BAAQMD Regulation 2, General Requirements, Rule 1, Permits, Section 208

PM

Particulate Matter

PM10

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those 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.

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

THC

Total Hydrocarbons (NMHC + Methane)

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)

TPH

Total Petroleum Hydrocarbons

TRMP

Toxic Risk Management Plan

TSP

Total Suspended Particulate

VOC

Volatile Organic Compounds, as defined in BAAQMD Regulation 8, Organic Compounds, Rule 50, Polyester Resin Operations, Section 220

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
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