

Bay Area Air Quality Management District

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Proposed

**Permit Evaluation
and
Statement of Basis
for**

**RENEWAL
of
MAJOR FACILITY REVIEW PERMIT
for**

**Western Fiberglass, Inc.
Facility No. A7974**

Facility Address:

1555 Copperhill Parkway
Santa Rosa, CA 95403

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1555 Copperhill Parkway
Santa Rosa, CA 95403

September 2024

Application No. 696275

Application Engineer: Youjin Kim
Site Engineer: Youjin Kim

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Title V Statement of Basis for Renewal of Major Facility Review Permit

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, more than 10 tons per year of styrene, which is a hazardous air pollutant.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70. 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 number that consists of a letter and a 4-digit number. This facility number is also considered to be the identifier for the permit. The identifier for this facility is A7974.

This facility received its initial Title V permit on July 1, 1997 and was renewed on December 19, 2002, January 5, 2009, February 25, 2014, and April 25, 2019. A reopening and minor revision was issued on July 15, 2004. Section X of the permit, Revision History, has a list of these revisions in chronological order.

This application is for the fourth renewal of the Title V permit. The standard sections of the permit have been upgraded to include new standard language used in all Title V permits. Also, various other corrections have been made to the permit. The proposed permit shows all changes to the permit in ~~strikeout~~/underline format.

The facility submitted their application on December 12, 2023, which is after their Major Facility Review Permit renewal application deadline of October 23, 2023. Therefore, this Major Facility Review Permit renewal application has been submitted past their deadline.

B. Facility Description

Western Fiberglass, Inc. manufactures corrosive resistant tanks and other containment devices for secondary containment of hazardous materials. The tanks are made from reinforced plastic composites. Emissions of the facility are primarily volatile organic compounds (VOC). Styrene, which is both a volatile organic compound and a hazardous air pollutant, is the main pollutant.

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 two permitted sources for their reinforced plastic composite operation: filament winding, and chopper gun. The chopper gun is used to form composites (lay up) in molds as laminates. The filament winding operation wraps thermoset resin-impregnated glass reinforcement around a suitable mandrel (spindle or rod). The mandrel gives the shape of the final item. A filament-winding machine wraps the mandrel with resin-impregnated strands with the required amount and orientation to build the designed reinforced structure. Filament winding produces hollow items like tubes, pipes, elbows, and tanks.

In addition, the facility has one exempt source: hand grinders. Certain fiberglass products manufactured at the facility require grinding either to remove rough edges, or to prepare them for post finishing operations.

Emissions from the facility are shown in the following table.

Table 1 Resin and Cleanup Emissions from S-1, S-2 and S-3, Plant 7974									
Fiberglass Resin Molding Operations									
Source	Resin Usage (gal/yr)	Catalyst, MEKP Usage (gal/yr)	Resin Density (lb/gal)	Styrene Content (weight %)	Emis. Fact. AP-42 Table 4.12-2 lb POC/lb Monomer		Emissions (lb/yr)		
					Low	High	Low	High	80%
S-1	20000	300.000	8.935	47%	5%	10%	4199.450	8398.900	7559.010
S-2	30000	450.000	9.185	42%	1%	3%	1157.310	3471.930	3009.006
S-3	30000	450.000	8.935	47%	9%	13%	11338.515	16377.855	15369.987
Cleanup Operations					Emission Totals				
Source	Solvent Usage (gal/yr)	Solvent Density (lb/gal)	POC Content (lb/gal)	POC Emissions (lb/yr)	Total POC Emissions				
					lb/yr	lb/day	tpy		
S-1	600	8.8009	0.7393	443.5800	8002.590	21.9249	4.0013		
S-2	600	8.8009	0.7393	443.5800	3452.586	9.4591	1.7263	offsets	
S-3	600	8.8009	0.7393	443.5800	15813.567	43.3248	7.9068	(tpy)	
Total Emissions				1330.74	27268.743	74.7089	13.6344	14.31609	

Notes:

1. Emissions from resin molding operations are estimated by adding 80% of the difference between the low and high emissions estimates to the low emissions estimate (e.g., Emissions = low estimate + 0.8*(high - low).

The facility submitted an application (Application 15561) for a Change of Conditions to allow for an operating flexibility to use acetone as a cleaning material. The requested Change of Conditions did not trigger PSD or NESHAPS requirements. Because the limits for acetone and NPOCs are not federally enforceable, the numbering scheme of the conditions was modified to identify the non-federally enforceable limit in Application 15561. A new limit was added in Application 15561 for the use of acetone to ensure that NESHAP requirements are not triggered.

Furthermore, in Application 15561, the facility requested to retain the same usage and POC emissions limit. Therefore, no increase of POC emissions has been proposed by the facility.

S-2 was archived on May 24, 2016, and is no longer in operation. Therefore, the POC potential to emit for this facility has decreased by 1.7263 tpy.

C. Permit Content

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

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.

Changes to Permit:

- The adoption dates of the rules in Standard Condition I.A have been updated.
- The Major Facility Review Permit renewal date was updated in Standard Condition B.1.
- Regulation 2-6-409.20 was added to the citation in Standard Condition I.B.11.
- Postal mail address for the Environmental Protection Agency has been updated in Standard Condition I.G.

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 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.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine abates VOC emissions, it will also be listed in the abatement device table but will have an "S" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

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

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

Changes to Permit:

- S-2 Closed Mold Vacuum was removed from "Table II A – Permitted Sources.". S-2 was archived on May 24, 2016.
- S-2 was removed from "Source(s) Controlled" by A-3 column in "Table II B – Abatement Devices".
- "Table II C – Sources Exempt from Permitting" was added for S-4 Hand Grinder.

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

Changes to Permit:

- The adoption dates of the rules have been updated.
- The following BAAQMD versions and SIP versions of the regulations were listed in Table III:
 - BAAQMD Regulation 2, Rule 2,
 - BAAQMD Regulation 2, Rule 4,
 - BAAQMD Regulation 2, Rule 5,
 - BAAQMD Regulation 2, Rule 6,
 - SIP Regulation 2, Rule 6,
 - BAAQMD Regulation 3,
 - BAAQMD Regulation 6,
 - BAAQMD Regulation 6, Rule 6,

SIP Regulation 8, Rule 1,
BAAQMD Regulation 14, Rule 1, and
40 CFR 82.166, Subpart F, Section 82.166

- The title of “EPA Regulation 40 CFR 82” was changed to “40 CFR 82 Subpart F”.
- The federal enforceability column has been updated.

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.

Applicability of BAAQMD Regulation 6, Rule 1: “Particulate Matter General requirements”

The BAAQMD Regulation 6, Rule 1 was amended on August 1, 2018. The purpose of this Regulation is to limit the quantity of particulate matter in the atmosphere through the establishment of limitation on emission rates, emission concentration, visible emissions and opacity.

BAAQMD Regulation 6-1-311 (Total Suspended Particulate (TPS) Weight Limits)

Western Fiberglass manufactures corrosive resistant tanks and other containment devices for the secondary containment of hazardous materials. Molding operations at Western Fiberglass

currently includes Filament Winder (S-1), and Chopper Guns (S-3). The PM emissions from S-1 and S-3 are negligible.

The Regulation 6-1-310 (Total Suspended Particulate (TSP) Concentration Limits) is applicable to exhaust gas volumes. There is no exhaust gas volume from S-1 Filament Winder. Therefore, Regulation 6-1-310 is not applicable to S-1. However, S-3 chopper guns have exhaust points. Therefore, Regulation 6-1-310 is applicable to S-3.

BAAQMD and SIP Regulation 8, Rule 50, Polyester Resin Operations and Definition of VOC

On November 6, 1996, the VOC definition in BAAQMD Regulation 8-50-249 was amended such that acetone, parachlorobenzotrifluoride, and cyclic, branched or linear, completely methylated siloxanes, were not considered to be VOC for the purposes of the limits in the rule. EPA has not yet approved these revisions into the SIP, so the definition of VOC is different in the BAAQMD and SIP rules. The definition affects all VOC limits in the rule, so none of the following VOC limits in the BAAQMD rule are federally enforceable: Sections 8-50-301.5, 8-50-301.6, 8-50-305.4, 8-50-307, and 8-50-501.2. Effective after October 1, 2010, the following VOC reduction methods are amended. The monomer content shall be no greater than the applicable limit specified in Table 1 of BAAQMD Regulation 8-50-301.6, and a resin containing vapor suppressant shall be no greater than 50 g/m² of exposed area during resin polymerization (Regulation 8-50-301.5). The BAAQMD Regulation 8-50-305.5 is added for compliance with the cold cleaner requirements. Corrections have been made to the citations of the rule in Sections IV, VII, and VIII of the permit. Citations of the federally enforceable SIP rule have been added. The definition of VOC has been added for clarity.

These changes have a material effect on the requirements for cleanup solvent because acetone is commonly used for cleanup, but unlikely to have an effect on the resin or monomer requirements because acetone, parachlorobenzotrifluoride, and cyclic, branched or linear, completely methylated siloxanes are not commonly added to the resins.

Applicability of 40 CFR Part 60, Subpart DDD – New Source Performance Standards (NSPS)

NSPS: Subpart DDD—Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry applies to “material recovery section” facilities that manufacture polystyrene in a “continuous process” and recovers any unreacted or by-product materials from any process section for sale, per § 60.560.

This facility manufactures tanks and other containment devices with resin that contains styrene monomers. Upon curing, the styrene monomers form polystyrene, and turn it into solid plastic containment devices.

This facility is not focused on manufacturing polystyrene from styrene monomers in a “continuous process” where “...reactants are introduced in a continuous manner and products are removed either continuously or intermittently...” as defined in § 60.561. They are focused on making containment devices using resin that contains styrene monomers. Polystyrene is the byproduct of resin curing.

Furthermore, this facility does not recover any unreacted or by-product materials from any

process section for sale. Therefore, this facility does not have any “material recovery section” equipment that “...recovers unreacted or by-product materials from any process section for the return to the process line...or sale” as defined in § 60.561. Therefore, per § 60.560.2, this facility is not subject to the requirements of Subpart DDD.

Applicability of 42 U.S.C. 7412 (Clean Air Act), Section 112(j), Equivalent Emission Limitation by Permit

This section ensures control of HAP emissions even if the EPA should miss a scheduled NESHAP (National Emission Standards for Hazardous Air Pollutants) promulgation date. If the EPA misses a scheduled promulgation date by 18 months, major sources in that category must submit to their respective State (or local) agencies a permit application proposing source-specific MACT. Conditions of the MACT determination must be incorporated into the Title V operating permit. Section 112(j) is commonly referred to as the "MACT hammer."

Western Fiberglass is a major source of Hazardous Air Pollutants (HAPs) for having the potential to emit 13.6 tpy of styrene. However, the corrosive-resistant tank and other containment device manufacturing operation at this facility falls under the applicability of 40 CFR Part 63, WWW – NESHAPs: Reinforced Plastic Composites Production.

Since NESHAP has been established for this facility, this facility is not subject to Clean Air Act Section 112 (j).

Applicability of 40 CFR Part 63, WWW – (National Emission Standards for Hazardous Air Pollutants) NESHAP

The facility is subject to the requirements of 40 CFR Part 63, WWW – NESHAP: Reinforced Plastic Composites Production. This rule became effective on April 23, 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 has 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.

Organic HAP emission limits for existing Open Molding Sources has been updated as shown in Table 3 of Subpart WWW of Part 63.

Applicability of 40 CFR Part 64, Compliance Assurance Monitoring

The facility is not subject to the Compliance Assurance Monitoring requirements of 40 CFR Part 64 for particulate as particulate emissions from S3, Chopper Guns, are expected to be insignificant and well below the major source threshold of 100 tons per year. The facility is not subject to 40 CFR 64 for styrene because there is no abatement device for styrene.

PM₁₀ emissions from S3 have not been quantified, as EPA AP-42 Chapter 4.4, Polyester Resin Plastic Products Fabrication, does not contain PM₁₀ emission factor for this source category.

Changes to Permit:

Tables IV-A, IV-B, and IV-C

- The adoption dates of the rules have been updated.
- The federal enforceability column has been updated.

- The following rules were removed from Table IV-A for S-1:
BAAQMD Regulation 6, Rule 1, Section 6-1-310.1, and
SIP Regulation 6, Rule 1 Section 6-310

- The following rules were added to Table IV-A for S-1:
BAAQMD Regulation 6, Rule 1, Section 6-1-311,
SIP Regulation 8, Rule 50, Sections 8-50-304, 8-50-305.1, 8-50-305.2,
8-50-305.3, 8-50-501.1, 8-50-501.3, 8-50-501.4, 8-50-501.5, and
40 CFR 63 Subpart WWWW, Section 63.59009(c)

- The titles of the following rules were changed:
BAAQMD Regulation 6, Rule 1, Section 311.1, and
BAAQMD Regulation 8, Rule 50, Section 501.5
SIP Regulation 8, Rule 50, Section 305.4

- 40 CFR 63 Subpart WWWW, Section 5805(a)(2) was replaced with Section 5805(b) in the current version of the rule in Table IV-A for S-1.

Table IV-B for S-2 was removed. Table IV-C was renamed as Table IV-B. S-2 was archived on May 24, 2016.

- The following rules were removed from Table IV-B for S-3:
BAAQMD Regulation 8, Rule 50, Sections 8-50-110, 8-50-302.4

- The following rules were added to Table IV-B for S-3:
BAAQMD Regulation 6, Rule 1, Section 6-1-311,
SIP Regulation 8, Rule 50, Sections 8-50-110, 8-50-302, 8-50-302.1,
8-50-302.2, 8-50-302.3, 8-50-302.4, 8-50-304, 8-50-305.1, 8-50-305.2,
8-50-305.3, 8-50-501.1, 8-50-501.3, 8-50-501.4, 8-50-501.5, and
40 CFR 63 Subpart WWWW, Section 63.59009(c).

- The titles of the following rules were changed in Table IV-B for S-3:
BAAQMD Regulation 6, Rule 1, Section 311.1,
BAAQMD Regulation 8, Rule 50, Sections 8-50-220, 8-50-302.2,
8-50-302.3, 8-50-305.4, 8-50-501.5, and
SIP Regulation 8, Rule 50, Section 305.4

- BAAQMD Regulation 8, Rule 50, Section 302.1 was replaced with BAAQMD Regulation 8, Rule 50, Section 302.1.1 in Table IV-B for S-3. The title for this rule was also changed.
- 40 CFR 63 Subpart WWWW, Section 5805(a) was replaced with Section 5805(b) in the current version of the rule in Table IV-B for S-3.
- A statement was written for S-4 which is exempt from the permitting requirements per Regulation 2-1-121.1.

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 responsible official for Western Fiberglass submitted a signed Certification Statement form dated December 12, 2023. On this form, the responsible official certified that the following statements are true:

- Based on information and belief formed after reasonable inquiry, the sources identified in the Applicable Requirements and Compliance Summary form that are in compliance will continue to comply with the applicable requirements
- Based on information and belief formed after reasonable inquiry, the sources identified in the Applicable Requirements and Compliance Summary form will comply with future-effective applicable requirements, on a timely basis
- The facility submitted their application on December 12, 2023, which is after their Major Facility Review Permit renewal application deadline of October 23, 2023. Therefore, this

facility is currently in non-compliance with the requirement to apply for their permit renewal on time. However, this non-compliance will be over once the permit has been issued. Therefore, the non-compliance with the requirement to apply for permit renewal on time is not included in the Schedule of Compliance.

VI. Permit Conditions

Each permit condition is identified with a unique numerical identifier, up to five digits.

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). It is also possible for permit conditions to be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 *et seq.*, an order of abatement pursuant to H&SC § 42450 *et seq.*, or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

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

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

Changes to Permit:

- Reference to S-2 in Part 4 of Condition #9303 was removed. S-2 was archived on May 24, 2016.
- Parts 5 through 8 of Condition #9303 were removed. These conditions pertained to S-2 Closed Mold Vacuum, which was archived on May 24, 2016.

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 to provide a reasonable assurance of compliance.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

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

PM Discussion:

This facility is a small source of particulate emissions. Hence, no PM monitoring is required.

<u>PM Sources</u>			
S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-3	BAAQMD Regulation 6-1-310.1	0.15 grain/dscf	None
S-3	SIP Regulation 6-310	0.15 grain/dscf	None
S-1& S-3	BAAQMD Regulation 6-1-301	Ringelmann 1.0 for more than 3 min/hr	None
S-1& S-3	SIP Regulation 6-301	Ringelmann 1.0 for more than 3 min/hr	None
S-1& S-3	BAAQMD Regulation 6-1-311.1	TSP Emission Limits 1.78 lb/hr	None
S-1& S-3	SIP Regulation 6-1-311.1	4.10 P ^{0.67} lb/hr	None

Visible Emissions

BAAQMD Regulation 6-1-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). Visible emissions are normally not associated with styrene. Sources S-1 and S-3 are using styrene. Therefore, no monitoring is required to assure compliance with this limit for this source.

Particulate Weight Limitation Discussion:

BAAQMD Regulation 6-1-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from “heat transfer operations” to 0.15 gr/dscf @ 6% O₂. These are the “grain loading” standards.

Exceedances of the grain loading standards are normally not associated with styrene compound. Therefore, no monitoring is required to assure compliance with this limit for this source.

BAAQMD Regulation 6-1-311.1 limits Total Suspended Particles (TSP) emission Process Weight Rate in Table 6-1-311.1. The Regulation 6-1-311.1 is applicable to S-3. The PM emissions from S-3 are negligible. Therefore, monitoring is not required to assure compliance with the 6-1-311.1 limits.

POC Discussions:

The NESHAP and Regulation 8, Rule 50 monitoring is adequate. Also, POC limits for the two sources are contained in permit conditions, which also contain adequate monitoring- daily records, and summations.

Changes to Permit:

- References to BAAQMD Regulation 6-1-310 and SIP Regulation 6-310 have been removed in Table VII-A for S-1, since S-1 does not have an exhaust point.
- References to 40 CFR 63, Subpart WWWW, Section 63.5805(a) were replaced with Section 63.5805(b).
- Table VII-B for S-2 was removed. Table VII-C was renamed as Table VII-B. S-2 was archived on May 24, 2016.
- References to 40 CFR 63, Subpart WWWW, Section 63.5805(a) were replaced with Section 63.5805(b).
- The emission limits were edited to match the limits in 40 CFR 63, Subpart WWWW, Table 3, Parts 6d and 6e in Table VII-B for S-3.

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 VI of the permit.

Changes to Permit:

- A statement was written for S-4 which is exempt from the permitting requirements per Regulation 2-1-121.1.

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 that identifies and justifies specific federally enforceable regulations and standards which the APCO has confirmed are not applicable to a source or group of sources, or (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting which 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.

Changes to Permit:

There is no change in this section for this Title V renewal.

X. Revision History:

The revision history will be updated when the revision is issued.

XI. Glossary:

Changes to Permit:

There is no change in this section for this Title V renewal.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

There is no change in this section for this Title V renewal.

E. Compliance Status:

The responsible official for Western Fiberglass submitted a signed Certification Statement form dated December 12, 2023. On this form, the responsible official certified that the following four statements are true:

- Based on information and belief formed after reasonable inquiry, the sources identified in the Applicable Requirements and Compliance Summary form that are in compliance will continue to comply with the applicable requirements;
- Based on information and belief formed after reasonable inquiry, the sources identified in the Applicable Requirements and Compliance Summary form will comply with future-effective applicable requirements, on a timely basis;
- Based on information and belief formed after reasonable inquiry, information on application forms, all accompanying reports, and other required certifications is true, accurate, and complete;
- All fees required by Regulation 3, including Schedule P have been paid.
- This facility applied late for their Major Facility Permit renewal. Therefore, they are currently in non-compliance with the requirement to apply for their permit renewal on time.

F. Differences between the Application and the Proposed Permit:

None

Appendix A – Engineering Evaluation

**ENGINEERING EVALUATION REPORT
 WESTERN FIBERGLASS
 PLANT #7974, APPLICATION #27170
 1555 COPPERHILL PKWY.
 SANTA ROSA, CA 95403**

Background:

Western Fiberglass Inc. (Western Fiberglass) has submitted this permit application for an Authority to Construct (AC)/ Permit to Operate (PO) for the following operation:

S-4: 3-Hand Grinders; Make: Hilti; Model: AG450-7

Western Fiberglass manufactures corrosive resistant tanks and other containment devices for the secondary containment of hazardous materials. Molding operations at Western Fiberglass currently include Filament Winder (S-1), Closed Mold Vacuum (S-2), and Chopper Guns (S-3). Western Fiberglass recently removed S-2 from service and requested the District to archive it.

S-4 currently operates without a valid permit. Certain fiberglass products manufactured at Western Fiberglass require grinding either to remove rough edges, or to prepare them for post finishing operations. Fiberglass products are ground using 3-hand grinders, and the grinding operations are conducted within a building. Particulate matter (PM) emissions consisting of fiberglass dust are generated during the grinding operations. Most of the dust is collected in a filter bag attached to the hand grinders and PM in the form of fugitive dust is also generated. Operators routinely sweep up the fugitive dust. Because operations at S-4 are intermittent in nature (vs. continuous), PM (~PM10) emissions are not significant as shown in Tables 1 and 2.

Emission Summary:

To help quantify PM emissions from S-4, Western Fiberglass voluntarily conducted an in-house study over 5-consecutive days. The results of the study are summarized in Table 1.

Date	Product Weight Before Grinding	Product Weight After Grinding	Difference in Weight	Total dust Collected	Total Dust Emitted
	Lb	lb	Lb	lb/day	lb/day
3/7/2016	432.88	443.82	9.06	5.89	3.17
3/8/2016	276.22	270.70	5.52	3.87	1.65
3/9/2016	317.02	310.68	6.34	4.76	1.58
3/10/2016	361.28	354.05	7.23	3.61	3.62
3/11/2016	461.29	452.06	9.23	6.00	3.23

For example, the unabated PM emission factor for March 7th was calculated as follows:
 = (Total dust emitted in pounds/Product weight before grinding in pounds) * 2000 lb/ton
 = (3.17 lb/452.88 lb) * 2000 lb/ton
 = 14 lb of dust emitted/ton of fiberglass product ground

Average PM emission factor resulting from in-house study
 = 14.0 lb/ton⁷ (14 + 11.95 + 9.97 + 20.04 + 14) ÷ 5)

Date	Hourly Emissions	Daily Emissions	Annual Emissions	
	lb/hr	lb/day	lb/yr	TPY
3/7/2016	0.40	3.17	824.20	0.41
3/8/2016	0.21	1.65	429.00	0.21

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Date	Hourly Emissions	Daily Emissions	Annual Emissions	
	lb/hr	lb/day	lb/yr	TPY
3/9/2016	0.20	1.58	410.80	0.21
3/10/2016	0.45	3.62	941.20	0.47
3/11/2016	0.40	3.23	839.80	0.42
Average	0.33	2.65	689.00	0.34

For example, the daily unabated PM emissions for March 7th were calculated as follows:
 = Emission factor (lb/ton) x Product weight before grinding (tons)
 = 14 x (452.88 ÷ 2000)
 = 3.17 lb/day

Conservatively assuming S-4 would operate for 8-hours per day and 260 days per year (8 hours/day for 52-weeks/year), the hourly and annual emissions from S-4 are 0.40 lb/hour (3.17 ÷ 8) and 824.20 lb/year (3.17 x 260), respectively.

Aside from PM emissions discussed above, S-4 will not emit TACs listed in Table 2-5-1. BACT will only be triggered if S-4 grinds more than 1,420 pounds of fiberglass products. In speaking with the District's Compliance & Enforcement staff familiar with operations at Western Fiberglass, staff has determined that S-4 will process minimal quantities (< 1,420 pounds) of fiberglass products and will therefore, not trigger BACT. District staff also believe S-4 is potentially an exempt operation.

The following discussion evaluates if S-4 qualifies for an exemption in Regulation 2-1.

- Regulation 2-1-103:
Does not meet the exemption criteria because S-4 is a material handling/processing source that is subject to Regulation 6-1. Therefore, S-4 is not exempt under Reg. 2-1-103.
- Regulation 2-1-121.1:
Though operations such as S-4 are addressed by this exemption, it is intended for organic (vs. particulate matter) emissions associated with the use of coolant, lubricant, or cutting oil. None of the above fluids are used at S-4. Therefore, S-4 is not exempt under Reg. 2-1-121.1.
- Regulation 2-1-128.19:
Operations performed at S-4 are equivalent to grinding operations exempt under Reg. 2-1-121.1; the annual PM emissions summarized in Table 2 are well below the 5 TPY threshold; and the backstops in Reg. 2-1-319 are not triggered. Therefore, S-4 is exempt under Reg. 2-1-128.19.

RECOMMENDATION:

Issue Western Fiberglass an exemption letter for the following source:

S-4: 3-Hand Grinders; Make: Hilti; Model: AG450-7

Remove S-2 from Permit to Operate.

By: Madhav Patil
 Air Quality Engineering

Date: 5/17/16