

**Bay Area Air Quality Management District**

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

**for  
LaSaffre Yeast Corporation  
Facility #B2975**

**Facility Address:**  
1384 N 5<sup>th</sup> Street  
Oakland, CA 94607

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1384 N 5<sup>th</sup> Street  
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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 number that consists of a letter and a 4-digit number. This facility number is also considered to be the identifier for the permit.

When the original Title V permit was issued in 1997, the facility was called “Red Star Yeast and Products” and was owned by Universal Foods. The facility was transferred to LaSaffre Yeast in February, 2001.

### **B. Facility Description**

LaSaffre Yeast Corp. is a commercial and nutritional yeast manufacturer. Yeast is produced in a fermentation process. Fermentation is a natural biological process that produces, as a byproduct, organic gases, including ethanol and acetaldehyde.

The process used is as follows: large fermentation vessels are filled with water, inoculated with seed yeast, fed nutrients and a constant supply of air. The yeast multiplies because the proper conditions for growth have been provided. When a batch is finished, the yeast is filtered from the batch and sold in a semi-solid or liquid state.

LaSaffre Yeast Corp. is subject to the Air Toxics Hot Spots Program under AB2588. This program is contained in the California H&S Code in Section 44300 et seq. The goals of the program are to quantify the emissions of routine and predictable hazardous air releases, to assess the resulting health

risks to exposed individuals, to notify nearby residents of significant risks, and to implement measures to reduce risks to acceptable levels.

Pursuant to AB2588, risk assessments have been prepared for the facility due to the facility's acetaldehyde emissions. At the current estimated acetaldehyde emissions of 29,000 lb/yr, the highest average ambient air concentration in the residential area surrounding the facility is estimated to be 2.7 microgram/cubic meter, which corresponds to a cancer risk of 7.3 in a million. This risk is less than the public notification trigger level for AB2588, which has been set by the District at 10 in a million. The estimated acetaldehyde air concentration is also less than the Reference Exposure Level of 9.0 microgram/cubic meter, that has been established for chronic non-cancer health effects. If this acetaldehyde air concentration from LaSaffre Yeast Corp.'s emissions is added to the average air concentration of acetaldehyde measured in the Bay Area (1.3 microgram/cubic meter, based on year 2000 data), the total air concentration would be 4 microgram/cubic meter, which is still well below the Reference Exposure Level. This means that adverse non-cancer health effects would not be expected to occur for residents that are exposed to these levels of acetaldehyde in the air over a long period of time.

### **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. All changes from the original 1997 permit 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.

#### **I. Standard Conditions**

This section contains administrative requirements and conditions that apply to all facilities. This section has been updated to incorporate changes made in the standard conditions since 1997.

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.

Condition I.J has been added to clarify that the capacity limits shown in Table II-A are enforceable limits.

## **II. Equipment**

This section of the permit lists all permitted or significant sources. Each source is identified by an S- and a number (e.g., S-24).

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 per year of a “regulated air pollutant,” as defined in BAAQMD Rule 2-6-222 or 400 pounds per year of a “hazardous air pollutant,” as defined in BAAQMD Rule 2-6-210.

Any abatement (control) devices that control permitted or significant sources are listed. Each abatement device 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 controls VOC emissions, it will have an “S” number. This facility has no abatement devices.

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.

There have been no changes in the equipment list since 1997. However, there is an alteration that adds a new air blower (#5A-capacity 6,481 DSCFM (6,510 SCFM, 7,106 inlet ACFM) when operating at 9 psig discharge pressure) to the five yeast fermenters. The air supplied to the fermenters is from five electric blowers (#1, New #2, #3, #4, #7). In 1996, the facility had removed blower #5 (4,000 DSCFM capacity) and #6 (5,200 DSCFM) from service and replaced blower #2 with a larger unit (from 3,238 DSCFM to 5,559 DSCFM). The blower changes in 1996 did not require a permit modification because “alterations” of existing permitted sources did not require permit applications. However, since May 2001 and the amendment of Regulation 2-1-234, Regulation 2-1-302 requires a permit application for “alterations” even if there is no emissions increase. The addition of the new blower (#5A) will not alter in any way the five yeast fermenters (S-3 through S-7), and it will not alter the other blowers (#1, New #2, #3, #4, #7). The additional blower will make up for the removal of the older blowers, #5 and #6, which were removed in 1996.

## **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) listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA into 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 portions of the SIP rule are cited separately after the District rule. The SIP portions will be federally enforceable; the non-SIP versions will not be federally enforceable, unless EPA has approved them 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.

The following changes were made to the 1997 permit:  
Regulation 6 was cited in Section IV for both boilers.

The SIP version of Regulation 9-1-301 was deleted because the current version has been adopted into the SIP.

Regulation 9, Rule 7 has been adopted into the SIP and is now federally enforceable.

Throughput limits and recordkeeping to assure compliance with these limits have been added to all sources.

40 CFR 63, Subpart CCCC, National Emission Standards for Hazardous Air Pollutants: Manufacturing of Nutritional Yeast, has been cited for the fermenters.

Condition # 12754, Part 1b and 3b(iv) were added to include the airflow rate limits and annual report for each type of fermentation (Trade, Stock and 1<sup>st</sup> Generation).

This permit did not require any complex applicability determinations.

## **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 only contains elements 2-6-409.10.1 and 2-6-409.10.2.

## **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.

Where 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 generally 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 are revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

For sources without existing throughput limits (i.e., limits on usage of materials or fuels), emissions have been calculated based on the capacity of the equipment. In order to ensure that emissions will not increase as a result of a replacement or modification that increases the capacity of a permitted source without a proper preconstruction permit review, conditions have been added to limit the daily and annual throughput of each source of the Title V permit.

The regulatory basis has been referenced following each condition. The regulatory basis may be a rule or regulation. The District is also using the following codes for regulatory basis:

- BACT: This code 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 code 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 code 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 code 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 code is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

Condition # 12754, Part 4 was added to incorporate compliance requirements with the new NESHAP standards.

Condition # 12754, Part 1b and 3b(iv) were added to include the airflow rate limits and annual report for each type of fermentation (Trade, Stock and 1<sup>st</sup> Generation).

## **VII. Applicable Limits and Compliance Monitoring Requirements**

This section of the permit is a summary of numerical limits and related monitoring requirements that apply to each source. The summary includes a citation for each monitoring requirement, frequency, and type. 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 the authority to impose additional monitoring where: (1) the existing applicable requirement does not require monitoring AND (2) monitoring is necessary to assure compliance with such applicable requirement.

The tables below show the limits that, prior to incorporation in the Title V permit, lack periodic monitoring requirements. Additional monitoring, if any, imposed pursuant to Title V is shown in the last column. The basis for each decision to require additional monitoring is presented in the discussion following each table. Applicable limits not shown in the following tables have adequate monitoring, and so no additional monitoring is being proposed in the Title V permit.

NOX Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-1 Boiler #1 and S-2 Boiler #2	BAAQMD 9-7-305.1	150 ppmv dry, @ 3% O2	None
	BAAQMD 9-7-306.1	150 ppmv dry, @ 3% O2	None
	BAAQMD 9-7-304.1	< 3% O2, dry, volume basis, exhaust concentration	None
	BAAQMD 9-7-306.1	48 hrs non-gaseous fuel testing	Test records
	BAAQMD Condition # 1993, Part 5	Maximum natural gas throughput ≤ 550,368 therms per year (each)	Record

**NOx Discussion:**

The capacities of both boilers are small (6.3 MMBTU/hr each). The NOx emissions are insignificant; therefore, monitoring is not required for this equipment.

CO Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-1 Boiler #1 and S-2 Boiler #2	BAAQMD 9-7-305.2	400 ppmv dry, @ 3% O2	None
	BAAQMD 9-7-306.2	400 ppmv dry, @ 3% O2	None
	BAAQMD 9-7-304.1	< 3% O2, dry, volume basis, exhaust concentration	None
S-1 Boiler #1 and S-2 Boiler #2	BAAQMD 9-7-306.1	48 hrs non-gaseous fuel testing	Test records

CO Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
	BAAQMD Condition # 1993, Part 5	Maximum natural gas throughput $\leq$ 550,368 therms per year (each)	Record

**CO Discussion:**

The capacities of both boilers are small (6.3 MMBTU/hr each). The CO emissions are insignificant; therefore, monitoring is not required for this equipment.

**SO<sub>2</sub> Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-1 Boiler #1 and S-2 Boiler #2	BAAQMD 9-1-301	Ground level concentrations of SO <sub>2</sub> shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
	BAAQMD 9-1-302	300 ppm (dry) (natural gas combustion)	None
	BAAQMD 9-1-304	Sulfur content of fuel < 0.5% by weight (fuel oil combustion)	Sulfur certification or analysis
	BAAQMD Condition # 1993, Part 1	Sulfur content of fuel < 0.4% by weight (fuel oil combustion)	Sulfur certification or analysis
	BAAQMD Condition # 1993, Part 5	Maximum natural gas throughput ≤ 550,368 therms per year (each)	Records
S-Sulfur Pits, S-Sulfur Plants	BAAQMD Regulation 9-1-313.2	operation of a sulfur removal and recovery system that removes and recovers: 95% of H <sub>2</sub> S from refinery fuel gas, 95% of H <sub>2</sub> S and ammonia from process water streams (sulfur recovery is required when a facility removes 16.5 ton/day or more of elemental sulfur)	Semi-annual inlet/outlet Sampling of the Fuel Gas Scrubber and Sour Water Stripper Towers (Note 4)
S-Sulfur Pits, S-Sulfur Plants	BAAQMD Regulation 6-330	0.08 grain/dscf exhaust concentration of SO <sub>3</sub> and H <sub>2</sub> SO <sub>4</sub> , expressed as 100% H <sub>2</sub> SO <sub>4</sub>	Semi-annual source tests (Note 5)

**SO<sub>2</sub> Discussion:**

**BAAQMD Regulation 9-1-301**

Area monitoring to demonstrate compliance with the ground level SO<sub>2</sub> concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). This facility does not have equipment that emits large amounts of SO<sub>2</sub> and therefore is not required to have ground level monitoring by the APCO.

All facility combustion sources are subject to the SO<sub>2</sub> emission limitations in District Regulation 9, Rule 1 (ground-level concentration and emission point concentration). In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 9, Rule 1, since violations of the regulation are unlikely. Therefore, no monitoring is necessary for this requirement when the boilers are firing natural gas.

The facility is required to obtain certifications of fuel sulfur or perform analyses for sulfur when fuel oil is burned. This is standard monitoring for the sulfur content of liquid fuels.

PM Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-1 Boiler #1 and S-2 Boiler #2	BAAQMD Regulation 6-301	Ringelmann 1.0 for no more than 3 minutes in any hour	None
	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O <sub>2</sub>	None

**PM Discussion:**

BAAQMD Regulation 6 “Particulate Matter and Visible Emissions”

Visible Emissions

BAAQMD Regulation 6-301 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).

Natural gas combustion:

Visible emissions are normally not associated with combustion of gaseous fuels, such as natural gas. In accordance with the EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", the District has determined that no monitoring is required to assure compliance with this limit for these sources during combustion of natural gas.

Fuel Oil combustion:

The EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP" recommends monitoring for opacity for boilers if the boiler burns more than 1 million gallons of fuel oil within a five-year period. These boilers are small (6.3 MMBtu/hr) and are capable of burning only 45 gallons of fuel oil per hour, if the heat content of the fuel oil is 140,000 btu/gallon. The boilers would have to burn fuel oil for 2.5 years before they would be subject to opacity monitoring. In addition, the facility is only allowed to burn fuel oil in case of a natural gas curtailment or when fuel oil is cheaper than natural gas on a btu basis, which is an unusual circumstance. Therefore, since it is unlikely that much fuel oil will be burned, no opacity monitoring has been imposed on the boilers during the combustion of fuel oil.

Particulate Weight Limitation

BAAQMD Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 6-310.3 limits filterable particulate emissions from “heat transfer operations” to 0.15 gr/dscf @ 6% O<sub>2</sub>. These are the “grain loading” standards.

Natural Gas Combustion:

Exceedances of the grain loading standards are normally not associated with combustion of gaseous fuels, such as natural gas. Per the EPA's July 2001 agreement with CAPCOA and ARB entitled "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources during the combustion of natural gas.

Fuel Oil Combustion: Additional monitoring has not been required to assure compliance with Regulation 6-310.3. The justification follows:

Regulation 6-310.3 allows 0.15 grains PM/dscf @ 6% O<sub>2</sub>. This is a "filterable particulate" standard because the standard regulates particulate as measured by BAAQMD Method ST-15, Particulate, which measures only filterable particulate.

The potential to emit for each boiler, S-1 and S-2, is estimated using the emission factor for filterable particulate from AP-42, Table 1.3-1, dated September, 1998.

$$(6.3 \text{ MMBtu/hr})(2 \text{ lb PM}/1000 \text{ gal fuel oil}) (\text{gal fuel oil}/137,000 \text{ btu}) (7000 \text{ grains}/\text{lb}) \\ = 643.8 \text{ grains}/\text{hour} = 0.0920 \text{ lb}/\text{hour}$$

The volume of combustion gases is calculated using the F factor method in EPA's Method 19, "Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates" in Appendix A of 40 CFR Part 60. The factor is 8600 dscf/MMBtu of natural gas burned.

$$(6.3 \text{ MMBtu/hr})(8600 \text{ dscf exhaust gases}/\text{MMBtu}) = 54,180 \text{ dscf exhaust gases}/\text{hr}$$

The grain loading is calculated by dividing the grains per hour by the volume of exhaust gases per hour:

$$\text{Grain Loading, grains}/\text{dscf} = (327.6 \text{ grains}/\text{hour}) / (54,180 \text{ dscf exhaust gases}/\text{hr}) \\ = 0.006 \text{ grains PM}/\text{dscf}$$

Since the standard is about 25 times the estimated emissions, the margin of compliance is high and additional monitoring to assure compliance with the grain loading standard is not required.

**POC Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S-1 Boiler #1 and S-2 Boiler #2	BAAQMD Condition # 1993, Part 5	Maximum natural gas throughput $\leq$ 550,368 therms per year (each)	Record
S-3, S-4, S-5, S-6, S-7 Yeast Fermenter # 1, #2, #3, #4, #5	BAAQMD Condition # 12754, Part 1a	Trade VOC < 300 ppmv carbon 1 <sup>st</sup> Generation VOC < 450 ppmv carbon Stock VOC < 900 ppmv carbon	Continuous Monitor
	BAAQMD Condition # 12754, Part 1b	Air flow rates: Trade < 7,558,394,235 ft <sup>3</sup> /yr, Stock < 241,471,470 ft <sup>3</sup> /yr, 1 <sup>st</sup> Generation < 3,733,973,901 ft <sup>3</sup> /yr	Record
	BAAQMD Condition # 12754, Part 5	Yeast Throughput < 4,200 ton/yr per fermenter	Record
	NESHAPS 40 CFR 63, Subpart CCCC, Sec. 63.2140	Trade VOC < 100 ppmv propane 1 <sup>st</sup> Generation VOC < 200 ppmv propane Stock VOC < 300 ppmv propane	Continuous Monitor

**POC Discussion:**

Recordkeeping is standard monitoring for fuel usage for boilers.

The NESHAPS's VOC limitations for Yeast Fermenters # 1 through #5 shall be effective starting May 21, 2004. Each continuous monitor that monitors fermenter exhaust must be installed, operated, and maintained according to the applicable Performance Specification (PS) of 40 CFR Part 60, Appendix B.

**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.

**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.

This permit has no streamlining.

**D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

**E. Compliance Status:**

Operators of facilities that are subject to Major Facility Operating Permits are required to submit semiannual monitoring reports, and to annually certify the facility's compliance status. Copies of these reports for this facility are attached as Appendices A and B.

The compliance reports show minor deviations from permit conditions, corrected by the facility immediately upon detection.

In 2001, the District notified facilities (including Lesaffre Yeast Corporation) of the requirement to submit Federal Emissions Statements during the annual permit renewal process. Like most facilities in the District, Lesaffre had been unaware of the requirement. Lesaffre came into compliance with this requirement by submitting the required statement shortly after being notified. See the July 24, 2001 Compliance Certification Report for more details.

A March 7, 2002 office memorandum the Director of Compliance and Enforcement to the Director of Permit Services presents a review of the compliance record of the Lesaffre Yeast Corporation plant. A

copy of this memorandum is attached as Appendix C. The memorandum is based upon the Compliance and Enforcement Division staff's review of compliance records for the period between February 1, 2001 through February 19, 2002. This review was initiated as part of the District evaluation of the application. During the period subject to review,

- There were no Notices of Violation issued.
- The District received 14 odor 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 Director of Compliance and Enforcement has concluded that on-going compliance can be reasonably assured for this facility.

The owner certified that all equipment was operating in compliance on July 25, 2001. No non-compliance issues have been identified to date.

**F. Differences between the Title V Permit (July 1, 1997) and the Proposed Permit:**

Regulation 6-305 (visible particles) and 6-310.3 (grain loading) were added for S-1 and S-2 boilers since they were missing from the first Title V issuance.

New MACT standards (NESHAPS 40 CFR 63, Subpart CCCC) for yeast manufacturing will be effective on May 21, 2004.

Title V permit renewal application #3924 was originally submitted by LaSaffre Yeast on December 28, 2001. This application and the existing permit are the basis for constructing the proposed Title V permit. The following changes to the permit are proposed:

Condition # 1993: parts 5 and 6 were added to include throughput limits for the boilers (identified by a basis of Regulation 2-1-234.3).

Condition # 12754, Part 1b and 3b(iv) were added to include the airflow rate limits and annual report for each type of fermentation (Trade, Stock and 1<sup>st</sup> Generation).

Condition # 12754, part 4 was added to require compliance with NESHAPS 40 CFR 63, Subpart CCCC, starting on May 21, 2004.

Condition # 12754, part 5 was added to include throughput limits for fermenters (identified by a basis of Regulation 2-1-234.3).

Throughput limits (identified by a basis of Regulation 2-1-234.3) have been added to all sources with no existing throughput or emission limits.

Permit Evaluation and Statement of Basis: Site B2975, LaSaffre Yeast Corporation,  
1384 N. 5<sup>th</sup> Street, Oakland, CA 94607

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Permit Evaluation and Statement of Basis: Site B2975, LaSaffre Yeast Corporation,  
1384 N. 5<sup>th</sup> Street, Oakland, CA 94607

APPENDIX A  
SEMIANNUAL MONITORING REPORTS

APPENDIX B  
ANNUAL COMPLIANCE CERTIFICATIONS

APPENDIX C  
REVIEW OF COMPLIANCE RECORD FOR  
FEBRUARY 1, 2002 THROUGH FEBRUARY 19, 2002

APPENDIX D  
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 that 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). 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<sub>x</sub>**

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 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.)

**O<sub>2</sub>**

Oxygen

**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, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

**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 Compounds

**PM**

Particulate Matter

**PM<sub>10</sub>**

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.

**SO<sub>2</sub>**

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

**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 <sup>2</sup>	=	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