



**BAY AREA AIR QUALITY
MANAGEMENT DISTRICT**

939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

**PERMIT
TO OPERATE**

Plant# 723

Page: 1

Expires: JUL 1, 2008

This document does not permit the holder to violate any District regulation or other law.

Ron Pauer
Lawrence Berkeley National Laboratory
One Cyclotron Rd, Mailstop 85B0198
Berkeley, CA 94720

Location: One Cyclotron Road
Berkeley, CA 94720

S#	DESCRIPTION	[Schedule]	PAID
64	Misc CHEM, Sawdust, .005 tons/hr max SAWDUST COLLECTOR - WEST LOADING DOCK, BLDG. 74 Abated by: A64 Simple Cyclone Emissions at: P64 Stack	[exempt]	0
73	Misc CHEM, Sawdust, .005 tons/hr max SAW, SANDER, PLANER & JOINTER - BLDG. 76, ROOM 234 Abated by: A73 Dynamic Cyclone Emissions at: P73 Stack	[exempt]	0
74	Spray booth, Air atomized, 15.23 gal/yr solvent PAINT SPRAY BOOTH - WATER CURTAIN Abated by: A74 Liquid Separator Emissions at: P74 Stack	[E]	173
96	Spray booth, Electrostatic (air-atomized), 1.23 gal/yr solvent PAINT SPRAY BOOTH, AIR FILTERS Abated by: A96 Dry Filter Emissions at: P96 Stack	[E]	173
97	Misc CHEM, Sand abrasive, .01 tons/hr max SANDBLAST SHOP - BLDG. 77, ROO, 165A Abated by: A97 Baghouse, Shaking Emissions at: P97 Stack	[F]	173

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S#	DESCRIPTION	[Schedule]	PAID
104	Dryer, Electric Drying Oven Emissions at: P104 Stack	[exempt]	0
116	MTGL/SEC> Sawing, Aluminum, .5 tons/hr max Aluminum, Brass, Copper, Plastic Sheet Saw Abated by: A115 Simple Cyclone Emissions at: P116 Stack	[exempt]	0
124	Misc CHEM, Sulfur Hexafluoride, .75 pounds/hr max Sulfur Hexafluoride Chamber Abated by: A124 Vapor Recovery Emissions at: P124 Stack	[exempt]	0
130	Solvent cleaning, 59 deg F Cold Cleaner	[exempt]	0
188	Solvent cleaning, 218.95 gal/yr net solvent, 59 deg F Facility-wide Wipe Cleaning	[E]	173
189	CHEM> Contaminated soil remediation, Contaminated soil vapor Soil Vapor Extraction System near Bldg. 7E Abated by: A189 Adsorption, Activated Carbon/Charcoal	[G1]	718
190	CHEM> Contaminated soil remediation, Contaminated soil vapor Soil Vapor Extraction System near Buildings 53 & 58 Abated by: A190 Adsorption, Activated Carbon/Charcoal Emissions at: P190 Stack	[G1]	718
191	STANDBY, Reciprocating Engine, Elect Gen, 3673 in3 displ Standby Generator, Cummins 2000DQKC 2-MW Abated by: A191 Diesel Oxidation Catalyst Emissions at: P191 Stack	[B]	420
193	STANDBY, Reciprocating Engine, Elect Gen, 661 in3 displ Diesel Standby Emergency Generator w/ Catalytic Convert Abated by: A196 Diesel Oxidation Catalyst Emissions at: P193 Stack	[B]	158

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194	STANDBY, Reciprocating Engine, Elect Gen, 504 in3 displ Diesel Standby Emergency Generator 150DGFA Emissions at: P194 Stack	[B]	158
200	STANDBY, Reciprocating Engine, Elect Gen, 661 in3 displ Diesel Engine, emergency standby Emissions at: P221 Stack	[B]	158
201	STANDBY, Reciprocating Engine, Elect Gen, 504 in3 displ Diesel Engine, Onan 175DGFB emergency standby Emissions at: P222 Stack	[B]	158
202	STANDBY, Reciprocating Engine, Elect Gen, 855 in3 displ Diesel Engine, Onan 275 DFCB, emergency standby Emissions at: P223 Stack	[B]	158
203	STANDBY, Reciprocating Engine, Elect Gen, 1709 in3 displ Diesel Engine, emergency standby Emissions at: P224 Stack	[B]	158
205	STANDBY, Reciprocating Engine, Elect Gen, 855 in3 displ Diesel Engine, Cummins 300 DFCB, emergency standby Emissions at: P225 Stack	[B]	158
206	STANDBY, Reciprocating Engine, Elect Gen, 552 in3 displ Diesel Engine, Detroit Allis model 6V92GDAB, emergency stan Emissions at: P226 Stack	[B]	158
207	STANDBY, Reciprocating Engine, Elect Gen, 611 in3 displ Diesel Engine, Cummins 230DFAB, emergency standby Emissions at: P227 Stack	[B]	144
208	STANDBY, Reciprocating Engine, Elect Gen, 1648 in3 displ Diesel Engine, emergency standby Emissions at: P228 Stack	[B]	144
209	STANDBY, Reciprocating Engine, Elect Gen, 359 in3 displ Diesel Engine, Onan 80 DGDA emergency standby Emissions at: P229 Stack	[B]	158

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210	STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ Diesel Engine, emergency standby Emissions at: P230 Stack	[B]	158
211	STANDBY, Reciprocating Engine, Elect Gen, 359 in3 displ Diesel Engine, emergency standby Emissions at: P231 Stack	[B]	158
212	STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ Diesel Engine, Onan 125DGEA, emergency standby Emissions at: P232 Stack	[B]	144
213	STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ Diesel Engine, emergency standby Emissions at: P233 Stack	[B]	158
214	STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ Diesel Engine, Cummins 175DGFB, emergency standby Emissions at: P234 Stack	[B]	158
215	STANDBY, Reciprocating Engine, Elect Gen, 552 in3 displ Diesel Engine, Detroit Allis model 6V92TA, emergency standb	[B]	144
216	STANDBY, Reciprocating Engine, Elect Gen, 855 in3 displ Diesel Engine, Cummins 350DFCC, emergency standby Emissions at: P235 Stack	[B]	158
217	STANDBY, Reciprocating Engine, Elect Gen, 1150 in3 displ Diesel Engine, emergency standby Emissions at: P236 Stack	[B]	158
218	STANDBY, Reciprocating Engine, Elect Gen, 1709 in3 displ Diesel Engine, Cummins 600DFGB, emergency standby Emissions at: P237 Stack	[B]	158
219	STANDBY, Reciprocating Engine, Elect Gen, 661 in3 displ Diesel Standby Emergency Generator w/Catalytic Convrtr Abated by: A219 Diesel Oxidation Catalyst Emissions at: P219 Stack	[B]	144

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28 Permit Sources, 6 Exempt Sources

*** See attached Permit Conditions ***

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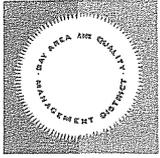
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*** PERMIT CONDITIONS ***

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Source# 74	subject to Condition	ID# 5581
Source# 188	subject to Condition	ID# 13887
Source# 189	subject to Condition	ID# 15965
Source# 190	subject to Condition	ID# 16752
Source# 191	subject to Condition	ID# 22850
Source# 193	" " "	ID# 22850
Source# 194	" " "	ID# 22850
Source# 200	subject to Condition	ID# 22820
Source# 201	subject to Condition	ID# 22830
Source# 202	" " "	ID# 22830
Source# 203	" " "	ID# 22830
Source# 205	" " "	ID# 22830
Source# 206	subject to Condition	ID# 22820
Source# 207	" " "	ID# 22820
Source# 208	subject to Condition	ID# 19533
Source# 209	subject to Condition	ID# 22830
Source# 210	subject to Condition	ID# 19533
Source# 211	" " "	ID# 19533
Source# 212	subject to Condition	ID# 22830
Source# 213	subject to Condition	ID# 22820
Source# 214	subject to Condition	ID# 22850
Source# 216	subject to Condition	ID# 22830
Source# 217	subject to Condition	ID# 22820
Source# 218	subject to Condition	ID# 22850
Source# 219	" " "	ID# 22850



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***** PERMIT CONDITIONS *****

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CONDITION ID #5581

1. Net usage of adhesive at source S-74 shall not exceed 57 liters (15 gallons) in any consecutive twelve month period.
2. Total evaporation of clean-up solvent from adhesive spraying shall not exceed 7.6 liters (2 gallons) in any consecutive twelve month period.
3. The operator shall maintain a District approved log of all materials used in this operation. The log shall contain the following information:
  - a. coating, catalysts and reducer used (product identification numbers)
  - b. mix ratio of components used
  - c. VOC content of coating as applied
  - d. quantity of coating applied
  - e. identification of coating category
  - f. type and amount of solvent used for surface preparation and clean-up.

Entries with this information shall be made in the log for days during which coating activity at S-74 occurred. Periods of no coating activity shall also be noted in the log prior to the new entries. In addition, operator shall keep records on a monthly basis of type and amount of all solvents used for surface preparation and clean-up at this source. All records shall be retained for a period of 2 years from date of entry. This log book shall be kept on site and made available to District staff upon request.

CONDITION ID #13887

- 1) Total wipe cleaning solvent shall not exceed 2095 liters (553 gallons) of precursor organic solvents and 1315 liters (347 gallons) of non-precursor organic solvents in any consecutive 12 month period.
- 2) Records shall be maintained in a District approved logbook of the amount and type of wipe cleaning solvent used on a quarterly basis. Records shall be maintained for a period of at least 24 months from the date of entry and made readily available to District staff upon request.



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*** PERMIT CONDITIONS ***

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CONDITION ID #15965

Conditions for S-189, Soil Vapor Extraction System  
at Plant 723, Lawrence Berkeley Lab

1. Source S-189 shall be vented at all times to A-189, at least two 150 lb minimum capacity activated carbon vessels arranged in series. Influent vapor flow shall not exceed 20 scfm. [BAAQMD Regulation 8-47-301]
2. The operator of this source shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the District's Source Test Manager at the following locations: [BAAQMD Regulation 8-47-603]
  - a. At the inlet to the second to last carbon vessel in series.
  - b. At the inlet to the last carbon vessel in series.
  - c. At the outlet of the carbon vessel that is last in series prior to venting to the atmosphere.

When using an FID to monitor breakthrough, readings may be taken with and without a Carbon filter tip fitted on the FID probe. Concentrations measured with the Carbon filter tip in place shall be considered methane for the purpose of these permit conditions.

3. These monitor readings shall be recorded in a monitoring log at the time they are taken. The monitoring results shall be used to estimate the frequency of Carbon change-out necessary to maintain compliance with conditions number 4 and 5, and shall be conducted on a daily basis. The operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Permit Services Division must be received by the operator prior to a change to the monitoring schedule. [Recordkeeping]
4. The second to last Carbon vessel shall be changed out with unspent Carbon upon breakthrough, defined as the detection at its outlet of the higher of the following: [Cumulative Increase]
  - a. 10 % of the inlet stream concentration to the Carbon vessel.
  - b. 10 ppmv (measured as C1).



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- 5. The last Carbon vessel shall be changed out with unspent Carbon upon detection at its outlet of 10 ppmv (measured as C1). [Cumulative Increase]
- 6. The operator of this source shall maintain the following records for each month of operation of the source: [Recordkeeping]
  - a. The hours and times of operation.
  - b. Each monitor reading or analysis result for the day of operation they are taken.
  - c. The number of Carbon beds removed from service.
 All measurements, records and data required to be maintained by the operator shall be retained and made available for inspection by the District for at least two years following the date the data is recorded.
- 7. Any exceedance of conditions number 4 and/or 5 shall be reported to the Permit Services Division with the log as well as the corrective action taken. The submittal shall detail the corrective action taken and shall include the data showing the exceedance as well at the time of occurrence. [Recordkeeping]
- 8. Upon final completion of the remediation project, the operator of Source S-189 shall notify the Permit Services Division within two weeks of decommissioning the operation. [Recordkeeping]

CONDITION ID #16752

Conditions for S-190, Soil Vapor Extraction System  
at Plant 723, Lawrence Berkeley Lab

- 1. Source S-190 shall be vented at all times to A-190, two 1000 lb capacity activated carbon vessels arranged in series. Influent vapor flow shall not exceed 215 scfm. <Offsets>
- 2. The operator of this source shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the District's Source Test Manager at the following locations: <Recordkeeping>
  - a. At the inlet to the second to last carbon vessel in series.
  - b. At the inlet to the last carbon vessel in series.
  - c. At the outlet of the carbon vessel that is last in series prior to venting to the atmosphere.



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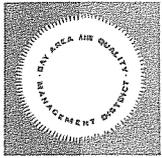
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*** PERMIT CONDITIONS ***

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When using an FID to monitor breakthrough, readings may be taken with and without a Carbon filter tip fitted on the FID probe. Concentrations measured with the Carbon filter tip in place shall be considered methane for the purpose of these permit conditions.

3. These monitor readings shall be recorded in a monitoring log at the time they are taken. The monitoring results shall be used to estimate the frequency of Carbon change-out necessary to maintain compliance with conditions number 4 and 5, and shall be conducted on a daily basis. The operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. Written approval by the District's Permit Services Division must be received by the operator prior to a change to the monitoring schedule. <Recordkeeping>
4. The second to last Carbon vessel shall be changed out with unspent Carbon upon breakthrough, defined as the detection at its outlet of the higher of the following:  
<Offsets>
  - a. 10 % of the inlet stream concentration to the Carbon vessel.
  - b. 10 ppmv (measured as C1).
5. The last Carbon vessel shall be changed out with unspent Carbon upon detection at its outlet of 10 ppmv (measured as C1). <Offsets>
6. The operator of this source shall maintain the following records for each month of operation of the source: <Recordkeeping>
  - a. The hours and times of operation.
  - b. Each monitor reading or analysis result for the day of operation they are taken.
  - c. The number of Carbon beds removed from service.All measurements, records and data required to be maintained by the operator shall be retained and made available for inspection by the District for at least two years following the date the data is recorded.
7. Any exceedance of conditions number 4 and/or 5 shall be reported to the Enforcement and Compliance Division with the log as well as the corrective action taken. The submittal shall detail the corrective action taken and shall include the data showing the exceedance



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as well at the time of occurrence. <Recordkeeping>

- 8. Upon final completion of the remediation project, the operator of Source S-190 shall notify the Permit Services Division within two weeks of decommissioning the operation. <Recordkeeping>

CONDITION ID #19533

CONDITIONS FOR NON "ESSENTIAL" EMERGENCY ENGINES:

Stationary Equipment Requirements

- 1. Hours of Operation: The owner/operator shall operate the emergency standby engine(s) only to mitigate emergency conditions or for reliability-related activities. Operating while mitigating emergency conditions is unlimited. Operating for reliability-related activities is limited to 100 hours per any calendar year. [Basis: Regulation 9-8-330]

"Emergency Conditions" is defined as any of the following:

- a. Loss of regular natural gas supply.
- b. Failure of regular electric power supply.
- c. Flood mitigation.
- d. Sewage overflow mitigation.
- e. Fire.
- f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor.

[Basis: Regulation 9-8-231]

"Reliability-related activities" is defined as any of the following:

- a. Operation of an emergency standby engine to test its ability to perform for an emergency use, or
- b. Operation of an emergency standby engine during maintenance of a primary motor.

[Basis: Regulation 9-8-232]

- 2. The owner/operator shall equip the emergency standby engine(s) with either:
  - a. a non-resettable totalizing meter that measures the hours of operation for the engine; or
  - b. a non-resettable fuel usage meter, the maximum hourly fuel rate shall be used to convert fuel



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usage to hours of operation.  
[Basis: Regulation 9-8-530]

- 3. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 2 years and shall make the log available for District inspection upon request:
  - a. Hours of operation (total).
  - b. Hours of operation (emergency).
  - c. For each emergency, the nature of the emergency condition.
  - d. Fuel usage for engine(s) if a non-resettable fuel usage meter is utilized.
 [Basis: Regulations 9-8-530 and 1-441]

CONDITION ID #22820

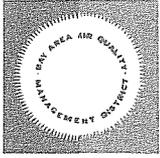
- 1. Operating for reliability-related activities is limited to 20 hours per year per engine.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (B) (3) or Regulation 2-5]

- 2. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (3)] or (e) (2) (B) (3)]

- 3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.



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[Basis: "Stationary Diesel Engine ATCM" section 93115,  
title 17, CA Code of Regulations,  
subsection(e) (4) (G) (1)]

- 4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
  - a. Hours of operation for reliability-related activities (maintenance and testing).
  - b. Hours of operation for emission testing to show compliance with emission limits.
  - c. Hours of operation (emergency).
  - d. For each emergency, the nature of the emergency condition.
  - e. Fuel usage for each engine(s).

[Basis: "Stationary Diesel Engine ATCM" section 93115,  
title 17, CA Code of Regulations, subsection (e) (4) (I),  
(or, Regulation 2-6-501)]

- 5. At School and Near-School Operation:  
If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

The owner or operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:

- a. Whenever there is a school sponsored activity (if the engine is located on school grounds).
- b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

"School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private



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home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (1)] or (e) (2) (B) (2)]

End of Conditions

CONDITION ID #22830

- 1. Operating for reliability-related activities is limited to 30 hours per year per engine.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (B) (3) or Regulation 2-5]

- 2. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (3)] or (e) (2) (B) (3)]

- 3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (4) (G) (1)]



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 4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
- a. Hours of operation for reliability-related activities (maintenance and testing).
  - b. Hours of operation for emission testing to show compliance with emission limits.
  - c. Hours of operation (emergency).
  - d. For each emergency, the nature of the emergency condition.
  - e. Fuel usage for each engine(s).

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (4) (I), (or, Regulation 2-6-501)]

5. At School and Near-School Operation:  
 If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

The owner or operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:

- a. Whenever there is a school sponsored activity (if the engine is located on school grounds).
- b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.

"School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.



**BAY AREA AIR QUALITY  
MANAGEMENT DISTRICT**

939 ELLIS STREET  
SAN FRANCISCO, CALIFORNIA 94109  
(415) 771-6000

**PERMIT  
TO OPERATE**

Plant# 723

Page: 16

Expires: JUL 1, 2008

This document does not permit the holder to violate any District regulation or other law.

*** PERMIT CONDITIONS ***

=====

[Basis: "Stationary Diesel Engine ATCM" section 93115,  
title 17, CA Code of Regulations, subsection  
(e) (2) (A) (1)] or (e) (2) (B) (2)]  
End of Conditions

CONDITION ID #22850

- 1. Operating for reliability-related activities is limited to 50 hours per year per engine.

[Basis: "Stationary Diesel Engine ATCM" section 93115,  
title 17, CA Code of Regulations, subsection (e) (2) (A) (3)  
or (e) (2) (B) (3)]

- 2. The owner or operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating hours while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited.

[Basis: "Stationary Diesel Engine ATCM" section 93115,  
title 17, CA Code of Regulations, subsection  
(e) (2) (A) (3) or (e) (2) (B) (3)]

- 3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained.

[Basis: "Stationary Diesel Engine ATCM" section 93115,  
title 17, CA Code of Regulations, subsection  
(e) (4) (G) (1)]

- 4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log



**BAY AREA AIR QUALITY  
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*** PERMIT CONDITIONS ***

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entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.

- a. Hours of operation for reliability-related activities (maintenance and testing).
- b. Hours of operation for emission testing to show compliance with emission limits.
- c. Hours of operation (emergency).
- d. For each emergency, the nature of the emergency condition.
- e. Fuel usage for each engine(s).

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (4) (I), (or Regulation 2-6-501)]

5. At School and Near-School Operation:

If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

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[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e) (2) (A) (1)] or (e) (2) (B) (2)]

~~~~~ END OF CONDITIONS ~~~~~

| S# | Source Description | Annual Average lbs/day | | | | |
|-------------|--|------------------------|------|------|-----|-----|
| | | PART | ORG | NOx | SO2 | CO |
| 64 | SAWDUST COLLECTOR - WEST LOADING DOCK, BLD | .02 | - | - | - | - |
| 73 | SAW, SANDER, PLANER & JOINTER - BLDG. 76, | - | - | - | - | - |
| 74 | PAINT SPRAY BOOTH - WATER CURTAIN | - | .35 | - | - | - |
| 96 | PAINT SPRAY BOOTH, AIR FILTERS | - | - | - | - | - |
| 97 | SANDBLAST SHOP - BLDG. 77, ROO, 165A | - | - | - | - | - |
| 104 | Drying Oven | - | - | - | - | - |
| 116 | Aluminum, Brass, Copper, Plastic Sheet Saw | - | - | - | - | - |
| 124 | Sulfur Hexafluoride Chamber | - | - | - | - | - |
| 130 | Cold Cleaner | - | - | - | - | - |
| 188 | Facility-wide Wipe Cleaning | - | 3.96 | - | - | - |
| 189 | Soil Vapor Extraction System near Bldg. 7E | - | - | - | - | - |
| 190 | Soil Vapor Extraction System near Building | - | - | - | - | - |
| 191 | Standby Generator, Cummins 2000DQKC 2-MW | .01 | - | .7 | .02 | .02 |
| 193 | Diesel Standby Emergency Generator w/ Cata | - | - | .38 | - | .01 |
| 194 | Diesel Standby Emergency Generator 150DGFA | - | - | .06 | - | .01 |
| 200 | Diesel Engine, emergency standby | - | - | .05 | - | .06 |
| 201 | Diesel Engine, Onan 175DGFB emergency stan | - | - | .05 | - | .01 |
| 202 | Diesel Engine, Onan 275 DFCE, emergency st | .02 | .02 | .3 | - | .06 |
| 203 | Diesel Engine, emergency standby | .02 | .02 | .22 | - | .05 |
| 205 | Diesel Engine, Cummins 300 DFCE, emergency | - | - | .05 | - | .01 |
| 206 | Diesel Engine, Detroit Allis model 6V92GDA | - | - | .06 | - | .01 |
| 207 | Diesel Engine, Cummins 230DFAB, emergency | - | - | .01 | - | .01 |
| 208 | Diesel Engine, emergency standby | - | - | - | - | - |
| 209 | Diesel Engine, Onan 80 DGDA emergency sta | - | - | .12 | - | .03 |
| 210 | Diesel Engine, emergency standby | .02 | .02 | .26 | - | .06 |
| 211 | Diesel Engine, emergency standby | .02 | .03 | .35 | - | .08 |
| 212 | Diesel Engine, Onan 125DGDA, emergency sta | - | - | .01 | - | - |
| 213 | Diesel Engine, emergency standby | - | - | .03 | - | - |
| 214 | Diesel Engine, Cummins 175DGFB, emergency | .01 | .03 | .19 | - | .24 |
| 215 | Diesel Engine, Detroit Allis model 6V92TA, | - | - | - | - | - |
| 216 | Diesel Engine, Cummins 350DFCC, emergency | .01 | .01 | .17 | - | .04 |
| 217 | Diesel Engine, emergency standby | - | - | .05 | - | .01 |
| 218 | Diesel Engine, Cummins 600DFGB, emergency | - | - | .05 | - | .01 |
| 219 | Diesel Standby Emergency Generator w/Catal | - | - | - | - | - |
| T O T A L S | | .18 | 4.5 | 3.11 | .07 | .73 |

\*\* PLANT TOTALS FOR EACH EMITTED TOXIC POLLUTANT \*\*

| Pollutant Name
----- | Emissions lbs/day
----- |
|--|----------------------------|
| Formaldehyde | .02 |
| Isopropyl alcohol | .56 |
| Methyl alcohol | 1.57 |
| Diesel Engine Exhaust Particulate Matter | .16 |

Bay Area Air Quality Management District

Permit Renewal to July 01, 2008

Itemized Listing: 1

Plant No: A0723

Invoice No: 1SE13

Itemized Source Listing

| Source No | Description | Annual Average Emissions lbs/day | | | | | Sched/Prorated | Fee |
|-----------|---|----------------------------------|-----|-----|-----|----|----------------|-------|
| | | Part | Org | NOx | SO2 | CO | | |
| 64 | Misc CHEM, Sawdust, .005 tons/hr max, 5 days/wk, 1 hrs/day
SAWDUST COLLECTOR - WEST LOADING DOCK, BLDG. 74 | .0 | .0 | .0 | .0 | .0 | Exempt | \$0 |
| 73 | Misc CHEM, Sawdust, .005 tons/hr max, 5 days/wk, 8 hrs/day
SAW, SANDER, PLANER & JOINTER - BLDG. 76, ROOM 234 | .0 | .0 | .0 | .0 | .0 | Exempt | \$0 |
| 74 | Spray booth, Air atomized, 15.23 gal/yr solvent, Lacquer, general, Sanding Sealer, waterbased
PAINT SPRAY BOOTH - WATER CURTAIN | .0 | .4 | .0 | .0 | .0 | E | \$173 |
| 96 | Spray booth, Electrostatic (air-atomized), 1.23 gal/yr solvent, Multi-coatings
PAINT SPRAY BOOTH, AIR FILTERS | .0 | .0 | .0 | .0 | .0 | E | \$173 |
| 97 | Misc CHEM, Sand abrasive, .01 tons/hr max, 1 days/wk, 7 hrs/day
SANDBLAST SHOP - BLDG. 77, ROO, 165A | -- | -- | -- | -- | -- | F | \$173 |
| 104 | Dryer, Electric
Drying Oven | .0 | .0 | .0 | .0 | .0 | Exempt | \$0 |
| 116 | MTGL/SEC> Sawing, Aluminum, .5 tons/hr max, 5 days/wk, 2 hrs/day
Aluminum, Brass, Copper, Plastic Sheet Saw | .0 | .0 | .0 | .0 | .0 | Exempt | \$0 |
| 124 | Misc CHEM, Sulfur Hexafluoride, .75 pounds/hr max, 1 days/wk, 1 hrs/day
Sulfur Hexafluoride Chamber | .0 | .0 | .0 | .0 | .0 | Exempt | \$0 |
| 130 | Solvent cleaning, 59 deg F
Cold Cleaner | .0 | .0 | .0 | .0 | .0 | Exempt | \$0 |
| 188 | Solvent cleaning, 218.95 gal/yr net solvent, 59 deg F
Facility-wide Wipe Cleaning | .0 | 4.0 | .0 | .0 | .0 | E | \$173 |
| 189 | CHEM> Contaminated soil remediation, Contaminated soil vapor, 1500 cubic feet/hr max, 7 days/wk
Soil Vapor Extraction System near Bldg. 7E | .0 | .0 | .0 | .0 | .0 | G1 | \$718 |
| 190 | CHEM> Contaminated soil remediation, Contaminated soil vapor, 20K cubic feet/hr max, 7 days/wk
Soil Vapor Extraction System near Buildings 53 & 58 | .0 | .0 | .0 | .0 | .0 | G1 | \$718 |
| 191 | STANDBY, Reciprocating Engine, Elect Gen, 3673 in3 displ, 2614 hp, Diesel fuel, Turbo-charged
Standby Generator, Cummins 2000DQKC 2-MW | .0 | .0 | .7 | .0 | .0 | B* | \$420 |

\* in schedule column indicates a toxic source that includes a 10% surcharge.

Bay Area Air Quality Management District
 Permit Renewal to July 01, 2008
 Itemized Source Listing

Itemized Listing: 2

Plant No: A0723
 Invoice No: 1SE13

| <u>Source No</u> | <u>Description</u> | <u>Annual Average Emissions lbs/day</u> | | | | | <u>Sched/Prorated</u> | <u>Fee</u> |
|------------------|--|---|------------|------------|------------|-----------|-----------------------|------------|
| | | <u>Part</u> | <u>Org</u> | <u>NOx</u> | <u>SO2</u> | <u>CO</u> | | |
| 193 | STANDBY, Reciprocating Engine, Elect Gen, 661 in3 displ, 380 hp, Diesel fuel, Turbo-charged
Diesel Standby Emergency Generator w/ Catalytic Convert | .0 | .0 | .4 | .0 | .0 | B* | \$158 |
| 194 | STANDBY, Reciprocating Engine, Elect Gen, 504 in3 displ, 277 hp, Diesel fuel, Turbo-charged
Diesel Standby Emergency Generator 150DGFA | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 200 | STANDBY, Reciprocating Engine, Elect Gen, 661 in3 displ, 375 hp, Diesel fuel, Turbo-charged
Diesel Engine, emergency standby | .0 | .0 | .0 | .0 | .1 | B* | \$158 |
| 201 | STANDBY, Reciprocating Engine, Elect Gen, 504 in3 displ, 277 hp, Diesel fuel, Turbo-charged
Diesel Engine, Onan 175DGFB emergency standby | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 202 | STANDBY, Reciprocating Engine, Elect Gen, 855 in3 displ, 360 hp, Diesel fuel, Turbo-charged
Diesel Engine, Onan 275 DFCB, emergency standby | .0 | .0 | .3 | .0 | .1 | B* | \$158 |
| 203 | STANDBY, Reciprocating Engine, Elect Gen, 1709 in3 displ, 250 hp, Diesel fuel, 1 days/wk
Diesel Engine, emergency standby | .0 | .0 | .2 | .0 | .0 | B* | \$158 |
| 205 | STANDBY, Reciprocating Engine, Elect Gen, 855 in3 displ, 465 hp, Diesel fuel, Turbo-charged
Diesel Engine, Cummins 300 DFCB, emergency standby | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 206 | STANDBY, Reciprocating Engine, Elect Gen, 552 in3 displ, 400 hp, Diesel fuel, Turbo-charged
Diesel Engine, Detroit Allis model 6V92GDAB,
emergency standby | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 207 | STANDBY, Reciprocating Engine, Elect Gen, 611 in3 displ, 380 hp, Diesel fuel, Turbo-charged
Diesel Engine, Cummins 230DFAB, emergency standby | .0 | .0 | .0 | .0 | .0 | B | \$144 |
| 208 | STANDBY, Reciprocating Engine, Elect Gen, 1648 in3 displ, 750 hp, Diesel fuel, Turbo-charged
Diesel Engine, emergency standby | .0 | .0 | .0 | .0 | .0 | B | \$144 |
| 209 | STANDBY, Reciprocating Engine, Elect Gen, 359 in3 displ, 140 hp, Diesel fuel, Turbo-charged
Diesel Engine, Onan 80 DGDA emergency standby | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 210 | STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ, 277 hp, Diesel fuel, Turbo-charged
Diesel Engine, emergency standby | .0 | .0 | .3 | .0 | .1 | B* | \$158 |
| 211 | STANDBY, Reciprocating Engine, Elect Gen, 359 in3 displ, 140 hp, Diesel fuel, Turbo-charged
Diesel Engine, emergency standby | .0 | .0 | .3 | .0 | .1 | B* | \$158 |
| 212 | STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ, 207 hp, Diesel fuel, Turbo-charged
Diesel Engine, Onan 125DGEA, emergency standby | .0 | .0 | .0 | .0 | .0 | B | \$144 |

Bay Area Air Quality Management District
 Permit Renewal to July 01, 2008
 Itemized Source Listing

Itemized Listing: 3

Plant No: A0723
 Invoice No: 1SE13

| Source No | Description | Annual Average Emissions lbs/day | | | | | Sched/Prorated | Fee |
|-----------|---|----------------------------------|------------|------------|------------|-----------|-------------------------------------|---------------------|
| | | Part | Org | NOx | SO2 | CO | | |
| 213 | STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ, 207 hp, Diesel fuel, Turbo-charged
Diesel Engine, emergency standby | .0 | .0 | .0 | .0 | .0 | B* | \$158 |
| 214 | STANDBY, Reciprocating Engine, Elect Gen, 505 in3 displ, 271 hp, Diesel fuel, Turbo-charged
Diesel Engine, Cummins 175DGFB, emergency standby | .0 | .0 | .2 | .0 | .2 | B* | \$158 |
| 215 | STANDBY, Reciprocating Engine, Elect Gen, 552 in3 displ, 360 hp, Diesel fuel, 1 days/wk
Diesel Engine, Detroit Allis model 6V92TA, emergency standby | .0 | .0 | .0 | .0 | .0 | B | \$144 |
| 216 | STANDBY, Reciprocating Engine, Elect Gen, 855 in3 displ, 535 hp, Diesel fuel, Turbo-charged
Diesel Engine, Cummins 350DFCC, emergency standby | .0 | .0 | .2 | .0 | .0 | B* | \$158 |
| 217 | STANDBY, Reciprocating Engine, Elect Gen, 1150 in3 displ, 540 hp, Diesel fuel, Turbo-charged
Diesel Engine, emergency standby | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 218 | STANDBY, Reciprocating Engine, Elect Gen, 1709 in3 displ, 750 hp, Diesel fuel, Turbo-charged
Diesel Engine, Cummins 600DFGB, emergency standby | .0 | .0 | .1 | .0 | .0 | B* | \$158 |
| 219 | STANDBY, Reciprocating Engine, Elect Gen, 661 in3 displ, 395 hp, Diesel fuel, Turbo-charged
Diesel Standby Emergency Generator w/Catalytic Convtr | .0 | .0 | .0 | .0 | .0 | B | \$144 |
| | | <u>Part</u> | <u>Org</u> | <u>NOx</u> | <u>SO2</u> | <u>CO</u> | | |
| | Total lbs per day Emissions | 0 | 5 | 3 | 0 | 1 | | |
| | Total tons per year Emissions | 0.0 | 0.8 | 0.6 | 0.0 | 0.1 | | |
| | | | | | | | Total number of Permitted Sources | 28 |
| | | | | | | | Total Source Permit to Operate Fees | \$5,796.00 |
| | | | | | | | Renewal Processing Fee | \$551.00 |
| | | | | | | | | -----
\$6,347.00 |

\* in schedule column indicates a toxic source that includes a 10% surcharge.