

**Bay Area Air Quality Management District**

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

**Permit Evaluation  
and  
Statement of Basis  
for**

**Renewal of  
MAJOR FACILITY REVIEW PERMIT**

**for  
Anheuser-Busch, Inc.  
Facility #A0606**

**Facility Address:**  
3101 Busch Drive  
Fairfield, CA 94533

**Mailing Address:**  
P.O. Box AB  
Fairfield, CA 94533

April 2006

Application Engineer: Craig Ullery  
Site Engineer: Craig Ullery

Application Number: 13303

## TABLE OF CONTENTS

A. Background.....	4
B. Facility Description.....	6
C. Permit Content .....	11
<b>I. Standard Conditions</b>	<b>11</b>
<b>II. Equipment</b>	<b>11</b>
<b>III. Generally Applicable Requirements</b>	<b>13</b>
<b>IV. Source-Specific Applicable Requirements</b>	<b>13</b>
<b>V. Schedule of Compliance</b>	<b>16</b>
<b>VI. Permit Conditions</b>	<b>16</b>
<b>VII. Applicable Limits and Compliance Monitoring Requirements</b>	<b>20</b>
<b>VIII. Test Methods</b>	<b>27</b>
<b>IX. Revision History</b>	<b>27</b>
D. Alternate Operating Scenarios:.....	27
E. Permit Shield.....	27
F. Compliance Status: .....	28
G. Glossary .....	28
Appendix A Engineering Evaluation Application #3034 .....	33
Appendix B Engineering Evaluation Application # 3322 .....	37
Appendix C Engineering Evaluation Application # 7014 .....	41
Appendix D Engineering Evaluation Application # 7054.....	45
Appendix E Engineering Evaluation Application # 7209 .....	48
Appendix F Engineering Evaluation Application # 7731.....	51

Appendix G Engineering Evaluation Application # 7852 .....	55
Appendix H Engineering Evaluation Application # 9519 .....	58
Appendix I Engineering Evaluation Application # 9737.....	64
Appendix J Engineering Evaluation Application # 10483 .....	68
Appendix K Engineering Evaluation Application # 11782.....	71
Appendix L Engineering Evaluation Application # 12012 .....	75
Appendix M BAAQMD Compliance Report .....	78

## **Permit Evaluation/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 more than 100 tons per year of CO, a regulated air pollutant.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A0606.

This facility received its initial Major Facility Review permit on March 12, 2001. This application is for a 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 primary responsible official and facility contact have changed.

All of these revisions are described below in the permit content section. The proposed permit shows all changes to the permit in strikeout/underline format.

The facility has submitted applications since the Major Facility Review permit was issued on March 12, 2001. Following is a list of the applications:

<u>Application #</u>	<u>Description</u>	<u>Date of Receipt</u>
3034	Modification to S-12	6/19/01
3322	New Sources Generators	9/5/01
6142	Turbine Cogeneration Plant	8/19/02 (Cancelled)
6271	Title V Revision (Cogen Plant)	8/27/02 (Cancelled)
6786	Boiler Burners Replacement	12/9/02 (Cancelled)
7014	Boiler Burners Replacement	2/4/03

7015	Title V Revision for A#7014 Project	2/4/03
7054	Bottle Label Coders	2/13/03
7208	Title V Revision for A#7209 Project	3/13/03
7209	Brewhouse Modernization	3/13/03
7632	Title V Revision for A#7054 Project	5/28/03
7731	Throughput Limit Modification	6/10/03
7852	Modification to Condition 17177	7/7/03
8097	Title V Revision for A#7852 Project	8/11/03
9227	Title V Revision for A#9519 Project	2/26/04
9519	Emergency Diesel Engine	3/25/04
9737	Bottle Filling Lines Replacement	5/5/04
9738	Title V Revision for A#9737 Project	5/5/04
10483	Bottle Label Coders	7/29/04
11782	Modification to S-132 & S-133	2/3/05
11988	Title V Revision for A#11782 Project	2/25/05
12012	Case Coder	3/3/05

Application No. 3034 is for a modification to S-12 milling operation and creating new S-140, S-141 and S-142.

Application No. 3322 is for a loss of exemption for three emergency standby diesel engine generators.

Application Nos. 6142, 6271, and 6786 were cancelled.

Application No. 7014 is for an alteration to their existing S-1, 2, and 3 boilers by replacing the 119 MM Btu/hr burner in each boiler with new 119 MM Btu/hr burners. Application No. 7015 is the Title V Revision for this project.

Application 7054 is for 3 new Videojet bottle label coders. Application No. 7632 is the Title V Revision for this project.

Application No. 7209 is for a brewhouse modernization project. Application No. 7208 was the Title V revision application for this project.

Application No. 7731 is for the incremental increase in beer production affecting sources downstream due to the brewhouse modernization project (see A#7209).

Application No. 7852 is for a modification to S-141 malt grain storage and mill tower and S-142 adjunct grain storage and mill tower. Application No. 8097 is the Title V revision application for this project.

Application No. 9519 is for a loss of exemption for S-152 and S-153 bottle filler lines and S-154 and S-155 can filler lines; also a loss of exemption for fourth emergency standby diesel engine generator. Application No. 9227 is the Title V revision application for this project.

Application No. 9737 is for a new bottle filler line to replace S-152 and S-153 bottle filler lines.

Application No. 9738 is the Title V revision application for this project.

Application No. 10483 is for 3 new bottle label coders, S-161, S-162, and S-163.

Application No. 11782 is for a modification to S-132 and S-133 keg coders. Application No. 11988 is the Title V revision application for this project.

Application 12012 is for a new case coder, S-131.

**B. Facility Description**

The facility is a manufacturer of malt beverages (beer) produced from malted barley, rice, corn, water and other raw materials. Processes include grain receiving and handling, brewing, fermentation and aging, packaging and residual processes.

The 2000 plant inventory emissions are as follows:

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
S-1	Boiler	32.0	245.6	0.6	1.6	4.2
S-2	Boiler	32.0	245.6	0.6	1.6	4.2
S-3	Boiler	32.0	245.6	0.6	1.6	4.2
S-11	Grain Receiving Hopper	0	0	0	0	0
S-12	Grain Silos	0	0	0	0	0
S-13	Vac Cleaner Exhauster	0	0	0	0	0
S-14	Silo Unloading Hopper	0	0	0	0	0
S-15	Mash Tun #1	0	0	0	0	0
S-16	Mash Tun #2	0	0	0	0	0
S-18	Strainmaster & Spent Grain Tank (Lautering)	0	0	0	0	0
S-20	Brew Holding Tank	0	0	0	2.5	0
S-21	Brew Kettle	0	0	0	2.5	0
S-22	Hops Strainer	0	0	0	0	0
S-23	Hot Wort Tank	0	0	0	2.5	0
S-24	Wort Cooler #1	0	0	0	24.5	0
S-25	Wort Cooler #2	0	0	0	24.5	0
S-36	Blower	0	0	0	0	2.8
S-41	Chip Washer Exhauster	0	0	0	0	0
S-52	Keg Washer	0	0	0	0	0
S-53	Paper Baler	0	0	0	0	0

Permit Evaluation and Statement of Basis:  
Site A0606, Anheuser-Busch, Inc. 3101 Busch Drive, Fairfield, CA 94533

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
S-60	Still Feed Tank	0	0	0	5.3	0
S-61	Degasser	0	0	0	0	0
S-62	Stripping Column	0	0	0	0	0
S-63	Stripping Column Condenser	0	0	0	0	0
S-64	Rectifying Column	0	0	0	0	0
S-65	Rectifying Column Condenser	0	0	0	0	0
S-66	Alcohol Day Tank #1	0	0	0	0.5	0
S-67	Alcohol Day Tank #2	0	0	0	0.2	0
S-68	Alcohol Storage Tank #1	0	0	0	0.8	0
S-69	Alcohol Storage tank #2	0	0	0	0.8	0
S-70	Storage Tank #1, Alcohol	0	0	0	0.5	0
S-71	Storage Tank #2, Alcohol	0	0	0	0.5	0
S-73	Solvent Cleaner	0	0	0	2.2	0
S-74	Solvent Cleaner	0	0	0	2.2	0
S-75	Videojet Coder	0	0	0	0.3	0
S-76	Videojet Coder	0	0	0	0.3	0
S-77	Videojet Coder	0	0	0	0.3	0
S-78	Videojet Coder	0	0	0	0.3	0
S-86	Marsh Coder	0	0	0	3.3	0
S-97	Mash Tun #3	0	0	0	0	15.7
S-98	Mash Tun #4	0	0	0	0	15.7
S-120	Case Coder	0	0	0	3.4	0
S-121	Case Coder	0	0	0	2.2	0
S-124	Alpha Fermentation Tanks	0	0	0	6.9	0
S-125	Precoat Tank (Diatomaceous Earth)	0	0	0	0	0.2
S-126	Body Feed Tank	0	0	0	0	0
S-127	Body Feed Tank	0	0	0	0	0
S-128	Case Coder	0	0	0	2.2	0
S-130	D.E. Silo (Diatomaceous Earth)	0	0	0	0	0
S-132	Keg Coder	0	0	0	0.1	0
S-133	Keg Coder	0	0	0	0.1	0

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
S-134	Air Pallet Unloader	0	0	0	0	0
S-135	Venting of Fumigated Railcars	0	0	0	0	0
S-136	Slurry Injection Storage Tank	0	0	0	0	0
S-137	Slurry Mix Tank	0	0	0	0	0
S-138	Case Coder	0	0	0	1.3	0
S-139	Alcohol Loading Station	0	0	0	22.0	0
Total (lb/day)		95.9	736.8	1.7	117.0	47
Total (tons/yr)		17.5	134.5	0.3	19.1	8.6

The 2005 plant inventory emissions are as follows:

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
S-1	Boiler	20.4	157.2	0.3	1.0	2.7
S-2	Boiler	31.2	239.8	0.5	1.6	4.1
S-3	Boiler	30.6	235.8	0.5	1.5	4.0
S-11	Grain Receiving Hopper	0	0	0	0	0
<del>S-12</del>	<del>Grain Silos</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>0.5</del>
S-13	Vac Cleaner Exhauster	0	0	0	0	0
S-14	Silo Unloading Hopper	0	0	0	0	0
S-15	Mash Tun #1	0	0	0	0	0
S-16	Mash Tun #2	0	0	0	0	0
<del>S-18</del>	<del>Strainmaster &amp; Spent Grain Tank (Lautering)</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>
<del>S-20</del>	<del>Brew Holding Tank</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>2.5</del>	<del>0</del>
<del>S-21</del>	<del>Brew Kettle</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>2.5</del>	<del>0</del>
S-22	Hops Strainer	0	0	0	0	0
S-23	Hot Wort Tank	0	0	0	2.3	0
S-24	Wort Cooler #1	0	0	0	11.6	0
S-25	Wort Cooler #2	0	0	0	11.6	0
S-36	Blower	0	0	0	0	0
S-41	Chip Washer Exhauster	0	0	0	0	0



Permit Evaluation and Statement of Basis:  
Site A0606, Anheuser-Busch, Inc. 3101 Busch Drive, Fairfield, CA 94533

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
S-52	Keg Washer	0	0	0	0	0
S-53	Paper Baler	0	0	0	0	0
S-60	Still Feed Tank	0	0	0	5.4	0
S-61	Degasser	0	0	0	0	0
S-62	Stripping Column	0	0	0	0	0
S-63	Stripping Column Condenser	0	0	0	0	0
S-64	Rectifying Column	0	0	0	0	0
S-65	Rectifying Column Condenser	0	0	0	0	0
S-66	Alcohol Day Tank #1	0	0	0	0.5	0
S-67	Alcohol Day Tank #2	0	0	0	0.2	0
S-68	Alcohol Storage Tank #1	0	0	0	0.8	0
S-69	Alcohol Storage tank #2	0	0	0	0.8	0
S-70	Storage Tank #1, Alcohol	0	0	0	0	0
S-71	Storage Tank #2, Alcohol	0	0	0	0	0
<del>S-73</del>	<del>Solvent Cleaner</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>2.2</del>	<del>0</del>
<del>S-74</del>	<del>Solvent Cleaner</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>2.2</del>	<del>0</del>
S-75	Videojet Coder	0	0	0	2.4	0
S-76	Videojet Coder	0	0	0	2.6	0
S-77	Videojet Coder	0	0	0	2.4	0
S-78	Videojet Coder	0	0	0	2.6	0
<del>S-86</del>	<del>Marsh Coder</del>	<del>0</del>	<del>0</del>	<del>0</del>	<del>3.3</del>	<del>0</del>
S-97	Mash Tun #3	0	0	0	3.6	0
S-98	Mash Tun #4	0	0	0	3.6	0
S-120	Case Coder	0	0	0	0	0
S-121	Case Coder	0	0	0	0	0
S-124	Alpha Fermentation Tanks	0	0	0	6.9	0
S-125	Precoat Tank (Diatomaceous Earth)	0	0	0	0	0
S-126	Body Feed Tank	0	0	0	0	0
S-127	Body Feed Tank	0	0	0	0	0
S-128	Case Coder Line 50	0	0	0	0	0
S-130	D.E. Silo (Diatomaceous	0	0	0	0	0

Permit Evaluation and Statement of Basis:  
Site A0606, Anheuser-Busch, Inc. 3101 Busch Drive, Fairfield, CA 94533

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
	Earth)					
S-131	Case Coder Line 1	0	0	0	0.1	0
S-132	Keg Coder	0	0	0	2.6	0
S-133	Keg Coder	0	0	0	2.6	0
S-134	Air Pallet Unloader	0	0	0	0	0
S-135	Venting of Fumigated Railcars	0	0	0	0	0
S-136	Slurry Injection Storage Tank	0	0	0	0	0
S-137	Slurry Mix Tank	0	0	0	0	0
S-138	Case Coder	0	0	0	0	0
S-139	Alcohol Loading Station	0	0	0	9.8	0
S-140	Grain Transfer & Storage (Barley)	0	0	0	0	2.0
S-141	Grain Milling & Weighing (Barley)	0	0	0	0	2.6
S-142	Grain Milling & Weighing (Adjuncts)	0	0	0	0	1.4
S-143	Emergency Standby Diesel Engine/Generator #1	0	0	0	0	0
S-144	Emergency Standby Diesel Engine/Generator #2	0	0	0	0	0
S-145	Emergency Standby Diesel Engine/Generator #3	0	0	0	0	0
S-146	Bottle Label Coder	0	0	0	0.6	0
S-147	Bottle Label Coder	0	0	0	0.6	0
S-148	Bottle Label Coder	0	0	0	0.6	0
S-149	Lauter Tub	0	0	0	0	0
S-150	Brewkettle	0	0	0	0.3	0
S-151	Brewkettle	0	0	0	0.3	0
S-154	Can Filler Line 40	0	0	0	29.7	0
S-155	Can Filler Line 50	0	0	0	42.8	0
S-156	Emergency Standby Diesel Engine/Generator	0	0	0	0	0
S-158	Bottle Filler Line 1	0	0	0	0	0
S-161	Bottle Label Coder	0	0	0	0.1	0
S-162	Bottle Label Coder	0	0	0	0.1	0
Total (lb/day)		82.2	632.8	1.2	152.2	16.9

Source	Description	NOx (lbs/day)	CO (lbs/day)	SO2 (lbs/day)	VOC (lbs/day)	PM (lbs/day)
Total (tons/yr)		15.0	115.5	0.2	27.8	3.1

The change in plant emissions between 2000 and 2005 are:

Pollutant	Change in Plant Emissions (tons/yr)
NOx	-2.5
CO	-19.0
SO2	-0.1
VOC	+8.7
PM	-5.0

The increase in VOC emissions can be attributed to increased production from 2000 to 2005.

### C. Permit Content

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

#### I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

No changes are proposed for this section.

#### II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by S and a number (e.g., S1 or S-1).

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.

Major Facility Review permits list all abatement (control) 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 an authority to construct or 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.

### **Changes to permit**

The Source 14 description will be changed from Grain Transfer Hopper to Silo Unloading Hopper & Standby Exhauster.

Sources 72, 73, and 74 degreasers will be deleted.

Source 86 Case Coder, line 50 will be deleted.

Application 7054 is for 3 new Videojet bottle label coders, S-146, S-147, and S-148, that will be added to Table IIA. Application No. 7632 is the Title V Revision for this project.

Application No. 7209 is for a brewhouse modernization project consisting of replacement of the existing brew kettle with 2 new brew kettles, S-150 and S-151, both 500 bbls/hour capacity, and replacement of the existing strainmaster unit S-18 with new lauter tub S-149, 420 bbls/hour capacity, which will be added to Table IIA. As part of the brewhouse modernization, S-18 Strainmaster/Spent Grain Tank, S-20 Brew Holding Kettle, and S-21 Brew Kettle will be deleted from Table IIA. Application No. 7208 was the Title V revision application for this project.

Application No. 7731 is for the incremental increase in beer production affecting sources downstream due to the brewhouse modernization project (see A#7209). Those sources are: Can/Keg Coder Sources S-75, S-76, S-77, S-78, S-132, and S-133; Case Coder Sources S-120, S-121, S-128, and S-138; S-134 Air Pallet Unloader, and S-137 Slurry Mix Tank. Sources 75, 76, 77, and 78 coder descriptions will be changed from "can coders" to "videojet coders" in Table IIA. Source 132 keg label coder, line 90 make will be changed from "Videojet" to "Linx" and Source 133 keg label coder, line 90 make will be changed from "Videojet" to "Linx" in Table IIA. Source 120 case coder, line 40 make will be changed from "Marsh" to "Diagraph" and source 128 case coder, line 50 make will be changed from "Marsh" to "Diagraph" in Table IIA. Source 138 case coder, will be changed from bottle filler line 20 to case coder line 1 and make will be changed from "Marsh" to "Diagraph" in Table IIA.

Application No. 9519 is for a loss of exemption for S-152 and S-153 bottle filler lines and S-154 and S-155 can filler lines; also a loss of exemption for fourth emergency standby diesel engine generator. Application No. 9227 is the Title V revision application for this project. Source 152 bottle filler line 10, however, has since been removed. Source 154 can filler line 40, and source 155 can filler line 50 will be added to Table IIA. Application No. 9737 is for new S-158 bottle filler no. 1 and bottle filler no. 2 for line 1 which will be added to Table IIA. Each filler is capable of filling 900 bottles/minute. S-158 will replace S-153 bottle filler line and, therefore, S-153 has not been added to Table IIA. Application No. 9738 is the Title V revision application for this project. S-152 Bottle Filler Line 10 has been removed from service and will be deleted from Table II A. Accordingly, all references to S-152 will be deleted from the permit.

Application No. 10483 is for 3 new videojet bottle label coders, S-161, S-162, and S-163; S-163 has, subsequently, been deleted. S-161 and S-162 will be added to Table IIA.

Application No. 11782 is for a modification to S-132 and S-133 keg coders by changing the make of coder from Videojet to Linx; this change to the make will be added to Table IIA. Application No. 11988 is the Title V revision application for this project.

Application 12012 is for a new case coder, S-131, which will be added to Table IIA.

### **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 Major Facility Review permit if they are considered significant sources pursuant to the definition in BAAQMD Rule 2-6-239.

#### **Changes to permit**

Language will be added to Section III to clarify that this section contains requirements that may apply to temporary sources. This provision requires contractors that have "portable" equipment permits to comply with all applicable requirements to work at the facility on a temporary basis, even if the permit does not specifically list the temporary source. Examples are temporary sandblasting or soil-vapor extraction equipment.

Section III will be modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

Table IIB will be amended to indicate the abatement devices are subject to Regulation 8 Rule 52 and 98% VOC control efficiency, not Regulation 8 Rule 4 and 90% control efficiency.

### **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). 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 for particular sources. The text of the requirements is found in the regulations, which are readily available on the District or EPA websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section VII. Section VII is a cross-reference between the limits and monitoring requirements.

### **Complex Applicability Determinations**

The facility is not subject to 112(j) of the Clean Air Act because it is not a major source of hazardous air pollutants. The only source of HAP emissions at the facility is S-135 Railcar Fumigation Venting. Source 135 is an operation involving the ventilation of fumigant from railcars filled with grain used in the brewing process. HAP emissions from the fumigant ventilation are not significant and are limited by permit conditions to much less than 10 tons per year.

### **CAM**

40 CFR Part 64, Compliance Assurance Monitoring, does not apply since none of the emission units at this facility have pre-control device criteria-pollutant emissions in excess of 100 tons per year.

### **Changes to permit**

Section IV has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

The dates of adoption or approval of the rules and their "federal enforceability" status have been updated.

Changes have been made to the citations for BAAQMD Regulation 1 because the SIP version has changed.

In Table IV-B, the description for S-14 will be changed from “Grain Transfer” to “Silo Unloading Hopper & Standby Exhauster” and BAAQMD Condition No. 17176, Part 1, will be changed from “limit” to “monitoring”.

In Table IV-C, S-18 and S-20 will be deleted; the description for S-23 will be changed from “Hot Wort Receiver” to “Hot Wort Tank”. S-152, S-154, S-155, and S-158 will be added.

In Table IV-D, S-21 will be deleted. S-149, S-150, and S-151 will be added. The date for BAAQMD Regulation 8 Rule 2 Miscellaneous Operations will be changed from “6/15/94” to “7/20/05”; BAAQMD Condition No. “17659” will be changed to “20632”; in Part 1 “Beer” will be changed to “Hot Wort”; Part 2 will be added to limit hot wort throughput; Part 3 will be added to limit beer throughput; and Part 2 Recordkeeping will be changed to Part 4 Recordkeeping.

In Table IV-E, BAAQMD Condition No. 17176, Part 1, will be changed from “limit” to “monitoring”.

In Table IV-G, the date for BAAQMD Regulation 8 Rule 5 Storage of Organic Liquids will be changed from “1/20/93” to “11/27/02”; in the Applicable Requirement for 8-5-301 “Aboveground” and “ $\geq 264$  gal to  $\leq 9,906$  gal” will be added and “Smaller than 39,626 gal” will be deleted.

In Table IV-H, the date for BAAQMD Regulation 8 Rule 5 Storage of Organic Liquids will be changed from “1/20/93” to “11/27/02”; in the Applicable Requirement for 8-5-301 “Aboveground” and “ $\geq 264$  gal to  $\leq 9,906$  gal” will be added and “Smaller than 39,626 gal” will be deleted. In the Applicable Requirement for 8-5-303 “Aboveground Storage Tanks Larger Than 9,906 gal and  $< 19,813$  gal” will be deleted “Pressure vacuum valve” will be added.

Table IV-I for S-72, S-73, and S-74 will be deleted in entirety.

Table IV-J will be replaced with Table IV-I for S-75 through S-78, S-146 and S-147 videojet can coders, S-120, S-121, S-128, S-131, and S-138 diagraph case coders, S-132 and S-133 Linx keg label coders, and S-161 and S-162 videojet coders, line 1. S-86 will be deleted, “Marsh” will be deleted, “videojet can” for S-132 and S-133 will be deleted, and “bottle label” for S-161 and S-162 will be deleted. The date for BAAQMD Regulation 8 Rule 4 General Solvent and Surface Coating Operations will be changed from “5/16/96” to “10/16/02”. BAAQMD Condition No. 16202 Part 1 will be replaced in entirety with “Ink, solvent, and acetone limit”; Part 2 will be replaced in entirety with “If in excess of usages in Condition 1, POC emission limit.”; Part 2 will be replaced in entirety with “If in excess of usages in Condition 1, POC emission limit.”; Part 3 will be replaced in entirety with “Recordkeeping”.

Table IV-K will be replaced with Table IV-J for S-125 through S-127 and BAAQMD Condition No. 17176, Part 5, will be changed from “limit” to “monitoring”.

Table IV-L will be replaced with Table IV-K for S-130 and BAAQMD Condition No. 17176, Part 9, will be changed from “limit” to “monitoring”.

Table IV-M will be replaced with Table IV-L for S-134 and S-137 and BAAQMD Condition No. 17176, Part 7, will be changed from “limit” to “monitoring”.

Table IV-N will be replaced with Table IV-M for S-135 and the date for BAAQMD Regulation 8 Rule 2 Miscellaneous Operations will be changed from “6/15/94” to “7/20/05”.

Table IV-O will be replaced with Table IV-N for S-136.

Table IV-P will be replaced with Table IV-O for S-139 and the date for BAAQMD Regulation 8 Rule 2 Miscellaneous Operations will be changed from “6/15/94” to “7/20/05”.

Table IV-Q will be replaced with Table IV-P for S-140, S-142, and S-143. BAAQMD Condition No. 17177, Part 1, will be changed from “methyl bromide limit” to “phosphine gas limit”; Part 7, will be changed from “limit” to “monitoring”.

Table IV-R will be replaced with Table IV-Q for S-143, S-144, and S-145.

Table IV-R will be added for S-154 and S-155.

Table IV-S will be added for S-156.

Table IV-T will be added for S-158.

## **V. Schedule of Compliance**

A schedule of compliance is required in all Major Facility Review 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.”

The BAAQMD Compliance and Enforcement Division have conducted a review of compliance over the past year and have found no non-compliance problems and no patterns of violations at this facility during the past year.

## **VI. Permit Conditions**

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may be imposed or revised as a result of the facility submitting permit applications. Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health



and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 *et seq.*, an order of abatement pursuant to H&SC § 42450 *et seq.*, or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review. Permit conditions may also be derived from periodic monitoring requirements pursuant to BAAQMD Regulation 2-5-503, Monitoring.

Each permit condition is identified with a unique numerical identifier, up to five digits. A part number also identifies each part of the condition and each subpart is identified by a letter (for example, Condition 672, part 1a).

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 issued pursuant to Regulation 2, Rule 2.
- **TRMP:** This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.
- **Recordkeeping:** This term is used for a condition imposed by the APCO to ensure compliance with equipment and process operating limits.

Any 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 and all "underline" language will be retained, subject to consideration of comments received.

The District has reviewed and, where appropriate, revised or added new annual and daily throughput limits on sources so as to help ensure compliance with District rules addressing preconstruction review. The applicability of preconstruction review depends on whether there is a "modified source" as defined in District Rule 2-1-234. Whether there is a modified source depends in part on whether there has been an "increase" in "emission level." 2-1-234 defines what will be considered an emissions level increase, and takes a somewhat different approach depending on whether a source has previously permitted by the District.

Sources that were modified or constructed since the District began issuing new source review permits will have permits that contain throughput limits, and these limits are reflected in the Title V permit. These limits have previously undergone District review, and are considered to be the legally binding "emission level" for purposes of 2-234.1 and 2-1-234.2. By contrast, for older sources that have never been through preconstruction review (commonly referred to as "grandfathered" sources), an "increase" in "emission level" is addressed in 2-1-234.3. A

grandfathered source is not subject to preconstruction review unless its emission level increases above the highest of either: 1) the design capacity of the source, 3) the capacity listed in a permit to operate, or 3) highest capacity demonstrated prior to March 2000. However, if the throughput capacity of a grandfathered source is limited by upstream or downstream equipment (i.e., is “bottlenecked”), then the relaxing of that limitation (“debottlenecking”) is considered a modification.

The District has written throughput limits into the Title V permit for grandfathered sources. As discussed above, these limits are written for the purpose of determining whether an increase in emission levels has occurred. The purpose of these limits is to facilitate implementation of preconstruction review program. If these limits are exceeded, the facility would be expected to report the exceedence, and the District would treat the reported exceedence as presumptively establishing the occurrence of a modification. The facility would then be expected to apply for a preconstruction permit addressing the modification and the District would consider whether an enforcement action was appropriate. However, the throughput limits will not be added as permit conditions but have been added to the capacity listing for each grandfathered source in Table II A.

It is important to note the presumptive nature of throughput limits for grandfathered sources that are created in the Title V permit. These limits are generally based upon the District’s review of information provided by the facility regarding the design capacity or highest documented capacity of the grandfathered source. To verify whether these limits reflect the true design, documented, or “bottlenecked” capacity (pursuant to 2-10234.1) of each source is beyond the resource abilities of the District in this Title V process. Moreover, the District cannot be completely confident that the facility has had time or resources necessary to provide the most accurate information available in this regard. Creating throughput limits in the Title V permit for grandfathered sources is not required by either Part 70 or the District’s Major Facility Review rules. Despite the lack of such a requirement, and despite the resource and information challenges presented in the Title V process, the District believes that writing presumptive limits for grandfathered sources into the Title V permit will provide a measure of predictability regarding the future applicability of the preconstruction review program, and that this increased predictability is universally beneficial.

It follows from the presumptive nature of these throughput limits for grandfathered sources that exceedence of these limits is not per se a violation of the permit. *Failure to report an exceedence would be a permit violation.* In this sense, the throughput limits function as monitoring levels, and are imposed pursuant to the District’s authority to required monitoring that provide a reasonable assurance of compliance. If an exceedence occurs, the facility would have an opportunity to demonstrate that the throughput limit in fact did not reflect the appropriate limit for purposes of 2-1-234.3. If the facility can demonstrate this, no enforcement action would follow, and the permit would be revised at the next opportunity. It also follows that compliance with these limits is not a “safe harbor” for the facility. If evidence clearly shows that a grandfathered source has undergone a “modification” as defined in 2-1-234.3, the District would consider that a preconstruction review-triggering event, notwithstanding compliance with the throughput limit in the Title V permit. In other words, the protection afforded the facility by complying with the throughput limit in the Title V permit is only as strong as the information on which it was based. There is no Title V “permit shield” associated with throughput limits for

grandfathered sources, as they are being proposed. A shield may be provided if the District determines with certainty that a particular limit is appropriate for purposes of 2-1-234.3.

In application no. 3034, the change to condition no. 13032, part 1, to increase annual fuel usage at each boiler from 1,024,940 to 1,042,440 was consistent with the identified correction in capacity from 117 MM Btu/hr to 119 MM Btu/hr each, and did not significantly affect criteria pollutant emissions. Condition no. 13032, part 3, required a visible emissions check after each boiler fires one million gallons of fuel oil. Since the intent was to check for visible emissions after each boiler fires one million gallons of fuel oil over the term of the Title V permit, the condition was revised to reflect this intention. Condition no. 13032, part 8, required fuel usage to be recorded at each boiler on a monthly basis. A-B was required to install individual meters on each boiler. In condition no. 17659, parts 1 and 2, were changed to specify “hot wort” production instead of beer production because that was the original intent of this condition and more accurately reflects the brewing process. Since the throughput did not change, emissions were not be affected

In application no. 3322, standard conditions for the loss of exemption standby emergency diesel engine/generators S-143, S-144, and S-145 were created.

In application no. 7014, no conditions changes occurred for S-1, S-2, or S-3 boilers.

In application no. 7054, conditions for the 3 new videojet coders S-146, S-147, and S-148 were created to limited ink and solvent throughput.

In application no. 7209, conditions were imposed on the new lauter tub S-149 and 2 new brew kettles S-150 and S-151 (brew house modernization) to limit product throughput.

In application no. 7731, the incremental increase in beer production affected sources downstream due to the brewhouse modernization project (see A#7209). Those sources are: Can/Keg Coder Sources S-75, S-76, S-77, S-78, S-132, and S-133; Case Coder Sources S-120, S-121, S-128, and S-138; S-134 Air Pallet Unloader, and S-137 Slurry Mix Tank. Condition no. 16202 was amended to increase ink and solvent usage at S-75, S-76, S-77, S-78, S-120, S-121, S-128, S-132, S-133, and S-138 coders. Condition no. 9061 was amended to increase throughput at S-134 and S-137.

In application no. 7852, the type and quantity of grain fumigant at S-141 and S-142 was changed in condition no. 17177.

In application no. 9519, new condition no. 21595 was imposed to limit throughput on loss of exemption bottle and can filler lines S-152, S-153, S-154, and S-155. Standard condition no. 21610 for the loss of exemption standby emergency diesel engine/generator (S-156) was also created.

In application no. 9737, S-158 bottle line 1 replaced S-153 bottle line. Condition no. 21639 limits throughput at S-158.

In application no. 10483, condition no. 21730 was created for 3 new videojet coders S-161, S-162, and S-163 to limited ink and solvent throughput.

In application no. 11782, condition no. 16202 was modified to include 2 new videojet keg coders S-132 and S-133 to limited ink and solvent throughput.

In application no. 12012, condition no. 16202 was modified to include a new videojet case coder S-131 to limited ink and solvent throughput.

The following are throughput limits on grandfathered sources (excluding tanks and fugitive emissions) for sources 11, 14, 15, 16, 22, 23, 24, 25, 36, 41, 52, 60 through 65, 97, 98, 130, 140, 141, and 142:

<u>Source Number</u>	<u>Description</u>	<u>Throughput</u>
S-11	80K	350,400 tons/year
S-14	32K	93,907 tons/year
S-15	Mash Cooker #1	2,891 Mbbls/year
S-16	Mash Cooker #2	2,891 Mbbls/year
S-22	Hops Strainer	13,847 Mbbls/year
S-23	Hot Wort Tank	15,306 Mbbls/year
S-24	Wort Cooler #1	3,855 Mbbls/year
S-25	Wort Cooler #2	3,855 Mbbls/year
S-36	Grain Dust Blower	3,942 tons/year
S-41	Chip Washer Exhauster	3,285 tons/year
S-52	Keg Washer	4,492.8 MKegs/yr
S-60	Still Feed Tank	21,024 MGal/year
S-65	Rectifying Column Condenser	21,024 MGal/year
S-97	Mash Cooker #3	550 Mbbls/year
S-98	Mash Cooker #4	550 Mbbls/year
S-130	D.E. Silo	72 tons/year
S-134	Air Pallet Unloader	201 tons/year
S-140	Grains Transfer and Storage	350,400 tons/year
S-141	Grain Milling and Weighing - Malt	157,680 tons/year
S-142	Grain Milling and Weighing - Adjunct	72,270 tons/year

## **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. Changes may also occur because the facility submitted an application for a change in their operations.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

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 Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S1, S2 and S3 Boilers	BAAQMD Regulation 6-301	Ringelmann 1.0 for less than 3 min/hr	None (when firing natural gas)
S1, S2 and S3 Boilers	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O2	None
S136 ACP Slurry Injection Tank	BAAQMD Regulation 6-301	Ringelmann 1.0 for less than 3 min/hr	None
S52 Keg Washer  S136 ACP Slurry Injection Tank	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O2	None

### PM Sources

<b># &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S52 Keg Washer S136 ACP Slurry	BAAQMD Regulation 6-311	4.10P <sup>0.67</sup> lb/hr, where P is process weight, ton/hr	None
S143, S144, S145, and S156 Emergency Standby Diesel Engine/Generators	BAAQMD Regulation 6-301	Ringelmann 1.0 for less than 3 min/hr	None
S143, S144, S145, and S156 Emergency Standby Diesel Engine/Generators	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

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 6-301, Visible Emissions. Therefore, no monitoring is necessary to verify compliance with this requirement for S-1, S-2, and S-3 Boilers when they are fired on natural gas.

Because the S-143, S-144, S-145, and S-156 Standby Generator Diesel Engines will be fired exclusively on diesel fuel with a maximum sulfur content of 0.5% by weight, visible emissions are not expected. Therefore, S-143, S-144, S-145, and S-156 are expected to continue to comply with Regulation 6-303.

Because S-143, S-144, S-145, and S-156 Standby Generator Diesel Engines will be fired exclusively on diesel fuel with a maximum sulfur content of 0.5% by weight, visible emissions are not expected. Therefore, S-143, S-144, S-145, and S-156 are expected to continue to comply with Regulation 6-303.1.

Moreover, the standby generators operate infrequently, so additional monitoring is not warranted.

##### 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 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.

**S1, S2 and S3 Boilers**

S1, S2 and S3 Boilers are subject to BAAQMD Regulation 6-310.3, 0.15 gr/dscf PM @ 6% O2. No monitoring has been imposed because the margin of compliance is high, as shown by the following calculation.

**Natural Gas**

The AP-42 factor for natural gas combustion is 7.6 lb/million standard cubic feet of natural gas (MMscf).

Converting to an emission factor per MMbtu:

$$(7.6 \text{ lb/MMscf}) \times (\text{MMscf}/1,050 \text{ MMbtu}) = 0.00724 \text{ lb/MMbtu}$$

The flue gas production rate for natural gas at 0% oxygen is 8,710 dscf. At 6% oxygen, the production rate is:

$$(20.9/20.9-6) (8710 \text{ dscf}) = 12,217 \text{ dscf}$$

The calculated particulate loading is:

$$(0.00724 \text{ lb PM/MMbtu}) \times (7000 \text{ gr/lb}) / (12,217 \text{ dscf/MMbtu}) = 0.004 \text{ gr/dscf}$$

The ratio of the limit to the calculated grain loading is 37.5:1, therefore, no additional monitoring is necessary to assure compliance.

No monitoring for compliance with Regulations 6-310.3 and 6-311 is required for S-52 Keg Washer and S-136 ACP Slurry tank because the processes are wet and the potential for visible emissions and/or particulate emissions are minimal.

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

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S1, S2, and S3 Boilers	BAAQMD 9-1-301	Ground level concentrations of SO2 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

### SO<sub>2</sub> Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S1, S2, and S3 Boilers	BAAQMD 9-1-302	300 ppm (dry)	None
S143, S144, S145, and S156 Emergency Standby Diesel Engine/Generators	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
S143, S144, S145, and S156 Emergency Standby Diesel Engine/Generators	BAAQMD 9-1-304	Sulfur content of fuel <0.5% by weight	None

#### **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 for S1, S2, and S3 Boilers when they burn natural gas. Because they will be fired on California diesel fuel with a maximum sulfur content of 0.05% by weight, the resulting SO<sub>2</sub> emissions are not significant.

Because the S-143, S-144, S-145, and S-156 Standby Generator Diesel Engines will be fired exclusively on California diesel fuel with a maximum sulfur content of 0.05% by weight, significant SO<sub>2</sub> emissions are not expected. Moreover, the standby generators operate infrequently, so additional monitoring is not warranted.

### VOC Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
-----------------------------	--------------------------------	---------------------------------------------	-------------------



**VOC Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S15 and S16 Mash Cookers S22 hops Strainer S23 Hot Wort Tank S24 and S25 wort aerators S41 chip washers S60 still feed tank S61 alcohol distillation degasser S62 alcohol distillation stripping column S63 alcohol distillation stripping column condenser S64 alcohol distillation rectifying column S65 alcohol distillation rectifying column condenser S97 and S98 mash cookers S124 alpha fermentation tanks S152 and S158 bottle filling lines S154 and S155 can filling lines S149 lauter tub S150 and S151 brew kettles S75 through S78, S120, S121, S128, S131, S132, S133, S138, S146, S147, S161, and S162 coders S135 fumigated railcar purging S139 alcohol loading station	BAAQMD 8-2-301	Emissions of total carbon (dry basis) shall not exceed 15 lb/day and 300 ppm	None

## **VOC Discussion:**

### BAAQMD Regulation 8-2-301

Monitoring to demonstrate compliance with the emission limit of total carbon (dry basis) of 15 lb/day and 300 ppm requirement of Regulation 8-2-301 is not required since the PTE for each of the sources listed above does not approach this limit.

S-139 Alcohol Loading Station:

Loading Loss = 0.637 lb VOC/1,000 gallons loaded

Permit limit = 400,000 gal/yr

Potential Loading Loss = (0.637 lb VOC/1,000 gallons loaded)(400,000 gal/yr) = 9.8 lb/day

### Following is a list of revisions to Section VII:

- The language at the beginning of the section has been made clearer.
- A note has been added at the beginning of the section to clarify that this section is a summary of the limits and monitoring and that in the case of a conflict between Sections I-VI and Section VII, the preceding sections take precedence.
- Table VII-B description will be changed from “Grain Transfer” to “Silo Unloading Hopper & Standby Exhauster”
- Table VII-C: S18, S20, and S160 will be deleted; S15, S16, S22, S23, S24, S25, S41, S60, S61, S62, S63, S64, S65, S97, S98, S124, S154, S155, and S158 will be added
- Table VII-D: S21 will be deleted; S149, S150, and S151 will be added. BAAQMD Condition no. 17659 Part 1 will be changed to 20632, the type of limit will be changed from beer to hot wort production, limit will be changed from 4,006,080 to 4,441,320 bbls, limit basis will be changed from year to 12 month period, the phrase “at lauter tub” will be added, and the monitoring requirement citation will be changed from BAAQMD Condition no. 17659 to 20632, and the Part No. will be changed from 2 to 4. BAAQMD Condition no. 20632 Part 2 will be added for hot wort production, with a throughput limit of 4,441,320 barrels/12-month period (each barrel = 31 gallons) through both brew kettles. BAAQMD Condition no. 20632 Part 3 will be added for beer production, with a throughput limit of 6,351,088 barrels/12-month period (each barrel = 31 gallons) through both brew kettles.
- Table VII-G: S86 will be deleted in the description; references to specific sources will be deleted in BAAQMD Condition no. 16202 Part 1, ink usage limits will be increased from 324 gal/yr to 1,339 gal/yr, solvent thinner usage will be increased from 30 gal/yr to 569 gal/yr, and an acetone limit of 26 gal/yr will be added. BAAQMD Condition no. 16202 Part 2 will be changed to allow usages in excess of those specified in Part 1 if annual POC emission do not exceed 17,370 pounds.
- Table VII-J: BAAQMD Condition No. 9061 Part 1 throughput limit will be changed from 200 tpy to 222 tpy.

- Table VII-N will be changed from an MeBr limit of 2,500 lb/yr to Phosphine with a 240 lb/yr limit. The monitoring requirement citation will be changed from BAAQMD Condition 17177 Part 2 to Part 4.
- Table VII-O SO<sub>2</sub> monitoring citation for 9-1-304 will be deleted.
- Table VII-P, Table VII-Q, and Table VII-R will be added.

### **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 VII of the permit.

#### **Changes to permit**

EPA Reference Method 5 (40 CFR 60, Appendix A), Determination of Particulate Emissions from Stationary Sources, has been added as an alternative method for BAAQMD Regulation 6-310.

### **IX. Revision History**

Changes have been documented in the Title V permit and SOB.

#### **D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

#### **E. 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 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 Major Facility Review permits. The District's program does not allow other types of streamlining in Major Facility Review permits.

This facility has no permit shields.

**F. Compliance Status:**

An office memorandum from the Director of Compliance and Enforcement dated March 22, 2007, to the Director of Engineering, presents a review of the compliance record of Anheuser-Busch (Site # A0606). The office memorandum is presented in Appendix M. The Compliance and Enforcement Division staff reviewed the records for the period from October 23, 2005 through March 14, 2007. This review was initiated as part of the District evaluation of an application by the facility for a Title V permit renewal. During the period subject to review, activities known to the District include:

- The District did not receive any alleged complaints.
- The District did not issue any Notices of Violation during this review period.
- The facility is not operating under a Variance or an Order of Abatement from the District Board of Directors.
- No monitor excesses were reported or documented.

The owner certified that all equipment was operating in compliance on 8/31/05. No ongoing non-compliance issues have been identified to date.

**G. Glossary**

Additions and corrections have been made to the glossary.

## GLOSSARY

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**AP-42**

EPA's Compilation of Air Pollutant Emission Factors

**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). Cumulative increase is used to determine whether threshold-based requirements are triggered.

**District**

The Bay Area Air Quality Management District

**dscf**

Dry Standard Cubic Feet

**EPA**

The federal Environmental Protection Agency.

**Excluded**

Not subject to any District regulations.

**Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

**FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

**HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

**IERC**

Interchangeable Emission Reduction Credit, as defined by BAAQMD Regulation 2-9-212.

**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.)

**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



**Appendix A**

**Engineering Evaluation  
Application #3034**

## **ANHEUSER-BUSCH, INC.**

### Minor Title V Modification and Change in Conditions

Application #3034

September 6, 2001

## **INTRODUCTION**

Anheuser-Busch, Inc. (AB) is applying for a:

- Modification to S-12 milling operation by removing 2 – 14,000 lb/hr malt mills and installing one 36,000 lb/hr malt mill; split out the Grain Transfer and Storage portion of S-12 and creating new S-140; split out the (malt) Grain Milling and Weighing portion of S-12 and creating new S-141; split out the (adjunct) Grain Milling and Weighing portion of S-12 and creating new S-142; and, archiving S-12;
- Change in Permit to Operate Conditions in their Title V Permit to Operate by correcting erroneous original information;
- Identification of exempt sources not previously indicated

at their facility in Fairfield, CA.

## **EMISSIONS**

Although A-B is replacing two 14,000 lb/hr mills with one 36,000 lb/hr mill, there will not be an increase in emissions since the actual mill throughput is limited by the hot wort/beer production, which will not change.

New S-140, S-141, and S-142 will continue to be abated by A-12 baghouse.

The S-1, 2, and 3 boiler capacity corrections from 117 MM Btu/hr to 119 MM Btu/hr each, will not significantly affect criteria pollutant emissions.

The S-21 through 24, S-97, S-98, and S-124 brewing and beer source capacity corrections will not affect emissions since actual throughput is limited by the hot wort/beer production, which will not change.

The S-86 case coder ink reservoir capacity correction will not affect VOC emissions since actual ink throughput is limited by permit condition, which will not change.

The change to condition no. 8195, parts 3 and 5, to specify “*fumigated*” railcar unloading will not affect emissions, since it was the intent of this condition to limit only the venting of fumigated railcars.

The change to condition no. 13032, part 1, to increase annual fuel usage at each boiler from 1,024,940 to 1,042,440 is consistent with the identified correction in capacity from 117 MM Btu/hr to 119 MM Btu/hr each, and will not significantly affect criteria pollutant emissions.

Condition no. 13032, part 3, requires a visible emissions check after each boiler fires one million gallons of fuel oil. A-B has proposed to revise this condition to require testing after each boiler fires one million gallons of fuel oil in any consecutive 12-month period. However, the intent is to check for visible emissions after each boiler fires one million gallons of fuel oil *over the term of the Title V permit*. Therefore, the condition will be revised to reflect this intention.

Condition no. 13032, part 8, requires fuel usage to be recorded at each boiler on a monthly basis. A-B indicates that they do not have individual fuel meters on each boiler and requests aggregate fuel usage be recorded instead. Since this is not consistent with conditions 1 and 3, A-B will be required to install individual meters on each boiler.

A-B proposes to change condition no. 17659, parts 1 and 2, to specify “hot wort” production, instead of beer production. The District agrees that this was the original intent of this condition and more accurately reflects the brewing process. Since the throughput will not change, emissions will not be affected

## **STATEMENT OF COMPLIANCE**

The changes to Anheuser –Busch’s Title V are minor and will not affect their compliance with District Rules and Regulations.

## **RECOMMENDATION**

### **Issue a Permit to Operate for:**

S-140 Grains Transfer & Storage, Buehler-Miag, model 25811  
S-141 Grains Milling & Weighing (malt), Seeger, model CL-15, 36,000 lb/hr  
S-142 Grains Milling & Weighing (adjunct), Buehler, model 412ROB, 16,500  
lb/hr

### **Issue a Change in Permit to Operate Conditions for:**

S-1, S-2, and S-3 Boilers (condition no.13032)  
S-21 Brew Kettle (condition no.17659)  
S-135 Rail Car Fumigation Venting (condition no.8195)

**PERMIT CONDITIONS**

See Title V

**Appendix B**

**Engineering Evaluation  
Application # 3322**

## **ANHEUSER-BUSCH**

Loss of Exemption  
**S-143, S-144, and S-145 Emergency Standby Diesel Engine/Generators**  
Application No. 3322

January 7, 2002

### INTRODUCTION

Anheuser-Busch is applying for a Minor Modification to their Title V Permit by requesting a Permit to Operate three emergency standby diesel engine/generators at their facility in Fairfield, CA. The engine/generators were installed in February of 2001.

### EMISSIONS

Each engine will produce the following emissions:

(1850 Bhp)(5.7 gm NO<sub>x</sub>/Bhp-hr)(1/454)(100 hr) = 2323 lb NO<sub>x</sub>/yr (1.161 tpy NO<sub>x</sub>)  
(1850 Bhp)(0.8 gm CO/Bhp-hr)(1/454)(100 hr) = 326 lb CO/yr (0.163 tpy CO)  
(1850 Bhp)(0.2 gm VOC/Bhp-hr)(1/454)(100 hr) = 81.5 lb VOC/yr (0.041 tpy VOC)  
(1850 Bhp)(0.15 gm PM/Bhp-hr)(1/454)(100 hr) = 61 lb PM/yr (0.031 tpy PM)  
(88.6 gal/hr)(7.5 lb/gal)(0.0005 S)(64/32 lb/lb mole SO<sub>2</sub>)(100 hr/yr)  
= 66 lb SO<sub>2</sub>/yr (0.033 tpy SO<sub>2</sub>)

### TOXICS REVIEW

The toxics review dated 11/2/01, indicates that the maximum 10 in one million risk will not be exceeded. Although the risk screen analysis indicated risk greater than 1 in one million, the proposed engine has certified emissions under the current 0.1 g/BHP-hr BACT level. Therefore the screen passes.

### MONITORING ANALYSIS

The sulfur content of the fuel shall be vendor certified and recorded in a District approved logbook. Since there is no cumulative increase for a Loss of Exemption, no monitoring is required for the other criteria pollutants. Per the 6/24/99 "CAPCOA/CARB/EPA Region IX Recommended Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources", no monitoring is required for grain loading from standby/emergency diesel engines. (These documents are available on CARB's website at: [arbis.arb.ca.gov/fcaa/tv/tvinfo/guidmrr.htm](http://arbis.arb.ca.gov/fcaa/tv/tvinfo/guidmrr.htm)). No monitoring is required for opacity from standby/emergency diesel engines.

### STATEMENT OF COMPLIANCE

S-143, S-144, and S-145 are fired with liquid fuel and therefore are not subject to Regulation 9, Rule 8 ("NO<sub>x</sub> and CO from Stationary Internal Combustion Engines"). The engines are subject to the SO<sub>2</sub> limitations of 9-1-301 (ground-level concentration) and 9-1-304 (0.5% by weight in fuel). Compliance with both of these requirements is very likely since diesel fuel with a 0.05% by weight sulfur is mandated for use in California. Like all sources, the engines are subject to Regulation 6 ("Particulate and Visible Emissions"). These modern engines are not expected to produce visible emissions or fallout in violation of this regulation and they will be assumed to be in compliance with Regulation 6 pending a regular inspection.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 2.3.

BACT, PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

### **Issue A Modified Title V Permit to Operate for:**

*S-143 Emergency Standby Diesel Engine, Cummins QSH45G4, 1850 Hp, 100 hours testing & maintenance*

*S-144 Emergency Standby Diesel Engine, Cummins QSH45G4, 1850 Hp, 100 hours testing & maintenance*

*S-145 Emergency Standby Diesel Engine, Cummins QSH45G4, 1850 Hp, 100 hours testing & maintenance*

## CONDITIONS

1. The S-143, S-144, and S-145 engines are subject to the requirements of Regulation 9, Rule 1 ("Sulfur Dioxide"), and the requirements of Regulation 6 ("Particulate and Visible Emissions"). These engines may be subject to other District regulations, including Regulation 9, Rule 8 ("NO<sub>x</sub> and CO from Stationary Internal Combustion Engines") in the future.

[Regulation 9, Rule 1; Regulation 6]

2. S-143, S-144, and S-145 shall be operated for no more than 100 hours EACH in any consecutive 12 month period for the purpose of reliability testing or in anticipation of imminent emergency conditions. Emergency conditions are:

- a) failure of a regular power supply, OR
- b) involuntary curtailment of a power supply (where the utility which provides regular power has been instructed by the Independent System Operator to shed firm load, or where the utility has actually shed firm load).

[Regulation 2, Rule 1]

3. S-143, S-144, and S-145 may be operated for an unlimited amount of time for the purpose of providing emergency standby power during emergency conditions (as defined in Part 2).

[Regulation 2, Rule 1]

4. The sulfur content of the fuel oil shall be certified by the fuel oil vendor.

[Regulation 2, Rule 6, Section 409.2]

5. S-143, S-144, and S-145 shall each be equipped with a non-resettable totalizing counter that records hours of operation for each engine.

[Regulation 2, Rule 6, Section 409.2]

6. The following monthly records shall be maintained in a District-approved log for at least 5 years and shall be made available to the District upon request:

- a) total hours of operation for S-143, S-144, and S-145 (individually)
- b) hours of operation under emergency conditions for S-143, S-144, and S-145 (individually) and a description of the nature of the emergency condition
- c) fuel usage at S-143, S-144, and S-145 (individually)
- d) fuel oil certification.

[Regulation 2, Rule 6, Section 409.2]



**Appendix C**

**Engineering Evaluation  
Application # 7014**

## **ANHEUSER-BUSCH**

### **S-1, 2, & 3 Boiler Burner Replacement**

Application No. 7014

April 30, 2003

#### **INTRODUCTION**

Anheuser-Busch is applying for an alteration to their existing S-1, 2, and 3 boilers by replacing the 119 MM Btu/hr burner in each boiler with new 119 MM Btu/hr burners.

The burners are being replaced due to corrosion problems from steam injection for NO<sub>x</sub> control. Both existing and replacement burners are of the low-NO<sub>x</sub> design. The boilers will continue to use FGR and steam injection for NO<sub>x</sub> control.

No changes will be required to the Facility's Title V permit.

#### **EMISSIONS**

There will be no increase in emissions from the proposed burner replacement.

#### **STATEMENT OF COMPLIANCE**

***S-1, 2 & 3 boilers will continue to comply with Regulation 6 for visible emissions and Regulation 9 Rule 7 NO<sub>x</sub> and CO from Boilers: the boilers will continue to meet Regulation 9-7-301.1 NO<sub>x</sub> standard of 30 ppmv @ 3% O<sub>2</sub> and the Regulation 9-7-301.2 CO standard of 400 ppmv @ 3% O<sub>2</sub>.***

A toxics risk screening analysis is not triggered.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

***This application is considered to be categorically exempt under the District's CEQA Regulation 2-1-312.1 because the application is for a permit modification that involves no increase in emissions.***

BACT, NSR, Offsets, PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

Allow Anheuser-Busch to replace the existing burners in the following sources with like-kind:

- S-1 Boiler, Babcox & Wilcox, 119 MM Btu/hr
- S-2 Boiler, Babcox & Wilcox, 119 MM Btu/hr
- S-3 Boiler, Babcox & Wilcox, 119 MM Btu/hr

## CONDITIONS

No change is recommended to the existing boiler condition 13032:

COND# 13032 -----

Condition #13032

S-1, S-2, and S-3, Boilers:

1. Fuel usage at each boiler, S-1, S-2, S-3, shall not exceed 1,042,440 MMBtu for any consecutive 12-month period. [2-1-301]
2. Emissions of nitrogen oxides (NOx) shall not exceed 30 ppmv, dry at 3% oxygen, as determined by Source Test Method 13A or 13B (District Manual of Procedures, Volume IV). [9-1-301.1]
3. Emissions of carbon monoxide (CO) shall not exceed 400 ppmv, dry at 3% oxygen, as determined by Source Test Method 6 (District Manual of Procedures, Volume IV). [9-1-301.2]
4. A District approved source test shall be performed on an annual basis to verify compliance with the NOx and CO emission standards. [basis: Regulation 2-6-409.2]
5. The sulfur content of the fuel oil shall be certified by the fuel oil vendor. [basis: Regulation 2-6-409.2]
6. Upon issuance of this permit, S-1, S-2, and S-3 Boilers, shall be checked for visible emissions after combustion of one million gallons of fuel oil, fired during the term of this permit, at each boiler.

The visible emissions check shall take place while the equipment is operating and during daylight hours. If any visible emissions are detected, the operator shall take corrective action within one week, and check for visible emissions after corrective action is taken. If no visible emissions are detected, the operator shall continue to check for visible emissions at the same frequency. (basis: Regulation 2-6-409.2)

7. The operator shall keep records of all visible emissions checks, the person performing the check, and all corrective action taken at S-1, S-2, and S-3, Boilers. The records shall be retained for five (5) years and shall be made available to District personnel upon request. (basis: Regulation 2-6-409.2)

8. To determine compliance with part 1 and part 6 of this condition, the operator shall install individual fuel meters and maintain the records of the fuel usage at each boiler on a monthly basis. The operator shall also summarize the fuel usage for each consecutive 12-month period at the end of each month. All records shall be recorded in a District-approved log. All records shall be retained on-site for five years from the date of entry and made available for inspection by District staff upon request. [2-1-301]

**Appendix D**

**Engineering Evaluation  
Application # 7054**

## **ANHEUSER-BUSCH**

### **S-146, S-147, and S-148 Videojet Bottle Label Coder**

Application No. 7054

May 7, 2003

#### INTRODUCTION

*Anheuser-Busch is applying for 3 new Videojet bottle label coders at their facility in Fairfield, CA.*

**S-146 Videojet Bottle Label Coder**  
**S-147 Videojet Bottle Label Coder**  
**S-148 Videojet Bottle Label Coder**

Videojet bottle label coders print product codes on the labels of bottles produced at this facility.

#### EMISSIONS

Each Videojet bottle label coder will use 13 gallons of ink and 23 gallons of make-up fluid, plus 7 gallons of make-up fluid for clean-up, annually:

S-146:  $(13 \text{ gal/yr})(7.2 \text{ lb/gal}) + (30 \text{ gal/yr})(6.7 \text{ lb/gal})$   
 $= 294.6 \text{ lb POC/yr (0.147 tpy POC)}$

S-147:  $(13 \text{ gal/yr})(7.2 \text{ lb/gal}) + (30 \text{ gal/yr})(6.7 \text{ lb/gal})$   
 $= 294.6 \text{ lb POC/yr (0.147 tpy POC)}$

S-148:  $(13 \text{ gal/yr})(7.2 \text{ lb/gal}) + (30 \text{ gal/yr})(6.7 \text{ lb/gal})$   
 $= 294.6 \text{ lb POC/yr (0.147 tpy POC)}$

Plant Cumulative Increase

$3.354 \text{ tpy (existing)} + 0.442 \text{ tpy (new)} = 3.796 \text{ tpy POC}$

#### STATEMENT OF COMPLIANCE

S-146, S-147, and S-148 are subject to Regulation 8, Rule 4, General Solvent and Surface Coating Operations. The sources will not emit more than 5 tpy VOC.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

The emissions of ethanol do not trigger a toxic risk screen since ethanol emissions are below the 8.7E5 lb/yr. trigger level.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

BACT, Offsets, PSD, NSPS, and NESHAPS are not triggered.

## **RECOMMENDATION**

### **Issue A Permit to Operate for:**

*S-146 Videojet Bottle Label Coder, Model 2000*

*S-147 Videojet Bottle Label Coder, Model 2000*

*S-148 Videojet Bottle Label Coder, Model 2000*

## **CONDITIONS**

### ***For S-146, S-147, and S-148 Videojet 2000 bottle label coders:***

1. The owner/operator shall limit ink usage at each source to not more than 13 gallons of Videojet ink and 23 gallons of Videojet make-up fluid usage in any consecutive 12-month period. [cumulative increase]
2. The owner/operator shall limit clean-up solvent usage at each source to not more than 7 gallons of Videojet make-up fluid in any consecutive 12-month period. [cumulative increase]
3. The owner/operator shall obtain written authorization from the District prior to using any ink other than Videojet 16-8540 and any make-up fluid other than Videojet 16-8545. [cumulative increase]
4. The owner/operator shall maintain a District approved logbook on an annual basis of the quantity of ink used and the amount of clean-up solvent used. The owner/operator shall maintain records for a period of at least 5 years from the date of entry and make them readily available to District staff upon request. [recordkeeping]

**Appendix E**

**Engineering Evaluation  
Application # 7209**



## **ANHEUSER-BUSCH**

### **Brewhouse Modernization**

Application No. 7209

May 20, 2003

#### INTRODUCTION

Anheuser-Busch is applying for brewhouse modernization project consisting of replacement of the existing brew kettle with 2 new brew kettles and replacement of the existing strainmaster unit with a new lauter tub at their facility in Fairfield, CA.

**S-149 Lauter Tub, 700 bbls**

**S-150 Brewkettle, 845 bbls**

**S-151 Brewkettle, 845 bbls**

Anheuser-Busch indicates that increased throughput through these proposed sources will affect throughput in S-134 Air Pallet unloader and S-136 Slurry Injection Tank; however, no significant emissions are associated with either source and the slight increase in throughput will not cause an increase in emissions at these source. Anheuser-Busch indicates that increased throughput through these proposed sources will affect ink throughput in various product coding lines and they will submit an application to modify throughputs in those sources.

#### EMISSIONS

AP-42 Emission factors (POC) for brewing operations (throughputs are maximum for each source):

S-149 Lauter tub: 0.0055 lbs/1E3 bbls beer

S-150 & 151 Brew kettles: 0.64 lbs/1E3 bbls beer

S-149:  $(6.35E6 \text{ bbls/yr})(0.0055 \text{ lbs/1E3 bbls}) = 35 \text{ lb/yr} (0.017 \text{ tpy})$

S-150:  $(3.18E6 \text{ bbls/yr})(0.64 \text{ lbs/1E3 bbls}) = 2,035 \text{ lb/yr} (1.018 \text{ tpy})$

S-151:  $(3.18E6 \text{ bbls/yr})(0.64 \text{ lbs/1E3 bbls}) = 2,035 \text{ lb/yr} (1.018 \text{ tpy})$

Plant Cumulative Increase

$3.796 \text{ tpy (existing)} + 2.053 \text{ tpy (new)} = 5.849 \text{ tpy POC}$

#### STATEMENT OF COMPLIANCE

S-149, S-150, and S-151 are subject to Regulation 8, Rule 2, Section 301 Miscellaneous Operations. The sources will not emit more than 15 lb/day VOC and 300 ppm total carbon, dry basis.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

A toxic risk screen is not triggered.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 11.9.

BACT, Offsets, PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

### Issue A Permit to Operate for:

**S-149 Lauter Tub, 700 bbls**

**S-150 Brewkettle, 845 bbls**

**S-151 Brewkettle, 845 bbls**

## CONDITIONS

*For S-149, S-150, and S-151:*

***1. The owner/operator shall limit throughput at S-149 lauter tub to not more than 6,351,088 barrels (bbls) of beer in any consecutive 12-month period. [cumulative increase]***

***2. The owner/operator shall limit the combined throughput at S-150 and S-151 brew kettles to not more than 6,351,088 barrels (bbls) of beer in any consecutive 12-month period. [cumulative increase]***

***3. The owner/operator shall maintain a District approved logbook on a monthly basis of the beer throughput. The owner/operator shall maintain records for a period of at least 5 years from the date of entry and make them readily available to District staff upon request. [recordkeeping]***

**Appendix F**

**Engineering Evaluation  
Application # 7731**

## **ANHEUSER-BUSCH**

Modification to Sources  
75, 76, 77, 78, 120, 121, 128, 132, 133, 134, 137, & 138

Application No. 7731

September 18, 2003

### **BACKGROUND**

Anheuser-Busch recently was granted an Authority to Construct (A/C No. 7209) for the brewhouse modernization project. The incremental increase in beer production will affect sources downstream by slightly increasing the maximum throughput. Those sources are:

Can/Keg Coder Sources S-75, S-76, S-77, S-78, S-132, and S-133; Case Coder Sources S-120, S-121, S-128, and S-138; S-134 Air Pallet Unloader, and S-137 Slurry Mix Tank.

### **EMISSIONS**

S-134 Air Pallet Unloader and S-137 Slurry Mix Tank: Increase silica gel throughput from 200 tpy to 222 tpy.

Air pallet unloader is abated by A-126 baghouse with 99% particulate control (assume 50% unabated emissions):

Cumulative Increase  
 $(22 \text{ tpy})(2,000 \text{ lb/ton})(0.50)(1-0.99) = 220 \text{ lb/yr} (0.110 \text{ tpy})$

BACT Trigger  
 $(222 \text{ tpy})(2,000 \text{ lb/ton})(0.50)(1-0.99) = 2,220 \text{ lb/yr} (6.1 \text{ lb/highest day})$

Can/Keg Coder Sources S-75, S-76, S-77, S-78, S-132, and S-133:

Increase ink and solvent thinner throughput at these sources from 324 gal/yr ink and 30 gal/yr thinner to 359 gal/yr and 33 gal/yr, respectively. The ink contains ethyl alcohol and the thinner consists of MEK:

Cumulative Increase  
 $(35 \text{ gal})(100\% \text{ POC})(6.8 \text{ lb/gal}) = 238 \text{ lb/yr} (0.119 \text{ tpy})$   
 $(3 \text{ gal})(100\% \text{ POC})(6.9 \text{ lb/gal}) = 21 \text{ lb/yr} (0.010 \text{ tpy})$

BACT Trigger  
 $(359 \text{ gal})(100\% \text{ POC})(6.8 \text{ lb/gal}) = 2,441 \text{ lb/yr} (6.69 \text{ lb/highest day})$

$(33 \text{ gal})(100\% \text{ POC})(6.9 \text{ lb/gal}) = 228 \text{ lb/yr}$  (0.62 lb/highest day)

Case Coder Sources S-120, S-121, S-128, and S-138:

Increase ink and solvent thinner throughput at these sources from 1,044 gal/yr ink and 169 gal/yr thinner to 1,157 gal/yr and 187 gal/yr, respectively. The ink and thinner contain glycol.

Cumulative Increase

$(113 \text{ gal})(100\% \text{ POC})(7 \text{ lb/gal}) = 791 \text{ lb/yr}$  (0.396 tpy)

$(18 \text{ gal})(100\% \text{ POC})(7 \text{ lb/gal}) = 126 \text{ lb/yr}$  (0.063 tpy)

BACT Trigger

$[(1,157 \text{ gal})(100\% \text{ POC})(7 \text{ lb/gal})]/[4 \text{ sources}] = 2,024 \text{ lb/yr}$  (5.5 lb/highest day/source)

$(187 \text{ gal})(100\% \text{ POC})(7 \text{ lb/gal}) = 1,309 \text{ lb/yr}$  (0.063 tpy)

Plant Cumulative Increase

POC:  $0.588 \text{ tpy (new)} + 5.849 \text{ tpy (existing)} = 6.437 \text{ tpy}$

PM:  $0.110 \text{ tpy (new)} + 0 \text{ tpy (existing)} = 0.110 \text{ tpy}$

## STATEMENT OF COMPLIANCE

Source 134 Air Pallet Unloader and S-137 Slurry Mix Tank will continue to comply with Regulation 6 for visible and particulate emissions. Sources 75, 76, 77, 78, 120, 121, 128, 132, 133, & 138 will continue to comply with Regulation 8-4 for General Solvent Operations.

Emissions do not trigger a toxics risk screening analysis: emissions of ethyl alcohol and MEK will not exceed  $8.7E5 \text{ lb/yr}$  and  $1.5E5 \text{ lb/yr}$ , respectively.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

BACT, NSR, PSD, NSPS, and NESHAPS are not triggered. Offsets are not triggered since cumulative POC emissions from the facility do not exceed 15 tpy.

## RECOMMENDATION

Issue a Change Permit to Operate Conditions for:

Can/Keg Coder Sources S-75, S-76, S-77, S-78, S-132, and S-133; Case Coder Sources S-120, S-121, S-128, and S-138; S-134 Air Pallet Unloader and S-137 Slurry Mix Tank.

## PERMIT CONDITIONS

The following changes are recommended for existing condition no. 9061:

COND# 9061 -----

S-134 ACP Air Pallet Unloader; S-137 Slurry Mix tank:

1. The throughput of silica gel at each of the air pallet unloader (S-134) and slurry mix tank (S-137) shall not exceed ~~200~~ 222 tons during any rolling 12 consecutive month period. [cumulative increase]

2. To demonstrate compliance with Condition #1, the monthly throughput of silica gel at each of S-134 and S-137, totaled on a yearly basis, shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least five years from the date on which a record is made. [cumulative increase]

The following changes are recommended for existing condition no. 16202:

COND# 16202 -----

1. Ink usage at S-75, 76, 77, 78, 132, and 133 combined shall not exceed ~~324~~ 359 gallons in any consecutive 12 month period. Solvent thinner usage at S-75, 76, 77, 78, 132, and 133 combined shall not exceed ~~30~~ 33 gallons in any consecutive 12 month period.[cumulative increase]

2. Ink usage at S-120, 121, 128, and 138 combined shall not exceed ~~4,044~~ 1,157 gallons in any consecutive 12 month period. Solvent thinner usage at S-120, 121, 128, and 138 combined shall not exceed ~~469~~ 187 gallons in any consecutive 12 month period.[cumulative increase]

3. A District approved logbook shall be maintained on a monthly basis of the amount of ink and solvent used in these sources. Records shall be retained for a period of at least 5 years from the date of entry and made readily available to District staff upon request.[recordkeeping]

**Appendix G**

**Engineering Evaluation  
Application # 7852**

## **ANHEUSER-BUSCH**

### **Modification to S-141 and S-142 Grain Storage and Mill Tower Fumigation**

Application No. 7852

September 22, 2003

#### INTRODUCTION

*Anheuser-Busch is applying for a modification to:*

#### **S-141 Grain Storage and Mill Tower (Malt) S-142 Grain Storage and Mill Tower (Adjunct)**

Anheuser-Busch fumigates the grain stored in these silos up to 4 times annually. They are requesting to use a fumigant that releases phosphine, a toxic compound. A toxic risk screen is triggered for phosphine at 1,900 lb/yr.

#### EMISSIONS

Attachment 1 indicates that the maximum phosphine emission would be 59.9 lb/fumigation event. With a maximum of 4 fumigation events/year, the maximum phosphine emission would be 240 lb/yr. The calculations are for the fumigation in the grain storage and mill towers, combined.

#### STATEMENT OF COMPLIANCE

S-141 and S-142 Grain Storage and Mill Towers will continue to comply with Regulation 6 for Visible and Particulate Emissions.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

A toxic risk screen is not triggered: emissions of phosphine do not exceed 1,900 lb/yr.

This application is considered to be categorically exempt under the District's CEQA Regulation 2-1-312.1 because it is for a modification to existing equipment that does not involve an increase in emissions.

BACT, Offsets, PSD, NSPS, and NESHAPS are not triggered.



## RECOMMENDATION

### Issue A Change in Permit to Operate Conditions for:

**S-141 Grain Storage and Mill Tower (Malt)**  
**S-142 Grain Storage and Mill Tower (Adjunct)**

## CONDITIONS

### Condition #17177

S-140 Grains Transfer & Storage, S-141 Grains Milling & Weighing (malt); S-142 Grains Milling & Weighing (adjunct);

1. The ~~use of methyl bromide~~ emission of phosphine gas at these sources shall not exceed ~~2,500~~ 240 pounds in any 12 consecutive month period. [toxic risk screen]
2. Records of the quantity of ~~methyl bromide used~~ phosphine gas emitted at these sources shall be maintained on a ~~monthly~~ quarterly basis in a District approved logbook. Records shall be retained for a period of at least 5 years from the date of entry and made readily available to District staff upon request. [toxic risk screen]
3. The pressure drop across A-12 baghouse abating these sources shall not be less than 1 inch of water nor exceed 6 inches of water. [Regulation 2-6-409.2]
4. Records of the pressure drop across the baghouse shall be maintained on a monthly basis in a District approved logbook. Records shall be retained for a period of at least 5 years from the date of entry and made readily available to District staff upon request. [Regulation 2-6-409.2]

**Appendix H**

**Engineering Evaluation  
Application # 9519**

## **ANHEUSER-BUSCH**

### **Loss of Exemption: Bottle and Can Filling Lines Emergency Standby Diesel Engine/Generator**

Application No. 9519

July 13, 2004

## INTRODUCTION

*Anheuser-Busch is applying for a Permit to Operate:*

**S-152 Bottle Filler Line 10  
S-153 Bottle Filler Line 20  
S-154 Can Filler Line 40  
S-155 Can Filler Line 50  
S-156 Emergency Standby Diesel Engine/Generator**

Anheuser-Busch recently realized that the previously-exempt filling line operations (bottle and can) each exceeded 5 tpy and, thus, had lost their exemption by Regulation 2-1-319.1 (adopted 5/17/00) requiring permits for any operation emitting more than 5 tpy of any regulated pollutant, after abatement. The keg filling line emissions were found not to exceed 5 tpy and, thus, remains exempt.

The emergency standby diesel engine/generator was installed in 1975 and is, also, a loss of exemption source.

## EMISSIONS

Attachment 1 (designated Table 5) provides emission factors, estimated emission and actual emissions in 2003 of sources 152 through 155 (bottle lines 10 and 20 and can lines 40 and 50, respectively). It should be noted that emissions from these sources is not limited by their unit/minute capacity but, rather, by the facility's overall production limit of 6,351,088 bbls. of beer/year, which is less than their combined unit/minute capacity.

Attachment 2 provides estimated emissions from the 1975 standby diesel engine/generator.

## STATEMENT OF COMPLIANCE

S-152 through S-155 filling lines are subject to Regulation 8 Rule 2 Section 301 for Miscellaneous Operations. Emissions will not exceed 15 lb. and 300 ppm total carbon, dry basis, per day, from each source.

S-156 is a loss-of-exclusion standby diesel engine/generator installed before May 17, 2000 and therefore not subject to Regulations 9-8-301, 9-8-302, and 9-8-502. S-156 is subject to the monitoring and record keeping procedures described in Regulation 9-8-530 and the SO<sub>2</sub> limitations of Regulation 9-1-302 (ground level concentration) and 9-1-304 (0.5% by weight in fuel). Requirements for Regulation 9-8-530 are included in the proposed permit conditions. Compliance with Regulation 9-1-304 is likely since California law mandates using diesel fuel with a 0.05% by weight sulfur.

Emissions from S-152 through S-155 and S-156 do not count towards the facility's cumulative increase since it is not defined as a new or modified source pursuant to Regulation 2-1.

Since S-152 through S-155 are loss-of-exemption sources and S-156 is a loss-of-exclusion source, they are not subject to BACT requirements pursuant to Regulation 2-2.

***Offsets are not required because S-152 through S-156 are not new or modified sources pursuant to Regulation 2-1 and 2-2.***

***A Toxic Risk Screen Analysis is not required for S-152 through S-156 since they are not new or modified sources and, therefore, not subject to Regulation 2-1-316.***

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

Loss of Exemption sources are not subject to CEQA since they are not new or modified per Regulation 2-1-310.

PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

Issue A Permit to Operate for:

S-152 Bottle Filler Line 10, 850 bottles/min

S-153 Bottle Filler Line 20, 850 bottles/min

S-154 Can Filler Line 40, 1560 cans/min

S-155 Can Filler Line 50, 1565 cans/min

S-156 Emergency Standby Diesel Engine/Generator, Cummins, 310 hp, 100 hours/year testing and maintenance

## CONDITIONS

Permit conditions for S-152 through S-155 bottle filler line 10 and line 20 and can filler lines 40 and line 50, respectively, Anheuser-Busch, Plant #606, A#9519

1. The owner/operator shall not exceed 850 bottles/minute through S-152, 850 bottles/minute through S-153, 1560 cans/minute through S-154, and 1565 cans/minute through S-155. [Basis: Cumulative Increase]
2. The owner/operator shall maintain records in a District-approved logbook on a weekly basis of can and bottle throughputs from each line. Records shall be maintained for a period of at least 5 years and made available upon request to district staff. [Basis: Recordkeeping]

Permit conditions for S-156 Emergency Standby Diesel Engine/Generator, Anheuser-Busch, Plant #606, A#9519

### 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 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 5 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]

ATTACHMENT 2

Daily emissions from S-156, a 1975 standby diesel engine/generator, assuming a 24 hr/day of operation and 310 hp at full load, will be calculated using emission factors listed in AP-42, Volume 1, Fifth Edition, Table 3.3-1, and are as follows:

NO <sub>x</sub> :	0.031	lb/hp-hr
CO:	6.68 E -03	lb/hp-hr
SO <sub>x</sub> :	2.05 E -03	lb/hp-hr
PM <sub>10</sub> :	2.20 E -03	lb/hp-hr
TOC*:	2.47 E -03	lb/hp-hr

\* Assume all POC compounds.

<b>NO<sub>x</sub>:</b>	(24 hr/day) (310 hp) (0.031 lb/hp-hr) =	<b>230.6 lb/day</b>
<b>CO:</b>	(24 hr/day) (310 hp) (6.68 E -03 lb/hp-hr) =	<b>49.7 lb/day</b>
<b>SO<sub>x</sub>:</b>	(24 hr/day) (310 hp) (2.05 E -03 lb/hp-hr) =	<b>15.3 lb/day</b>
<b>PM<sub>10</sub>:</b>	(24 hr/day) (310 hp) (2.20 E -03 lb/hp-hr) =	<b>16.4 lb/day</b>
<b>TOC:</b>	(24 hr/day) (310 hp) (2.47 E -03 lb/hp-hr) =	<b>18.4 lb/day</b>

**Appendix I**

**Engineering Evaluation  
Application # 9737**



## **ANHEUSER-BUSCH**

### **Bottle Line 1**

Application No. 9737

September 22, 2004

## INTRODUCTION

*Anheuser-Busch is applying for a Permit to Operate:*

### **S-158 Bottle Line 1, Filler Numbers 1 and 2, 1800 bottles/minute**

Anheuser-Busch recently realized that the previously-exempt filling line operations (bottle and can) each exceeded 5 tpy and, thus, had lost their exemption by Regulation 2-1-319.1 (adopted 5/17/00) requiring permits for any operation emitting more than 5 tpy of any regulated pollutant, after abatement. Bottle line 10 (S-152) and bottle line 20 (S-153) were recently permitted in A#9519. Proposed S-158 will replace these lines; however, S-152 will remain until 2006.

## EMISSIONS

Attachment 1 (designated Table 1) provides emission factors and estimated maximum emissions in lb/day and tpy, based on the facility's maximum allowable production rate [2,861,129 bbls/year]. The total POC emissions are 108.1 lbs/day and 19.741 tons/year.

### Plant Cumulative Increase

POC: 6.437 tpy (existing) + 19.741 tpy (new) = 26.178 tpy

## BEST AVAILABLE CONTROL TECHNOLOGY

Best Available Control technology is triggered for S-158 since POC emissions exceed the 10 lb/day threshold per Regulation 2-2-301.

For POC destruction, carbon adsorption, wet scrubber, regenerative thermal oxidizer and catalytic oxidizer were considered for possible viable control measures. Carbon was found to be infeasible due to the low adsorption rate of ethanol. Calgon has indicated that 1%, by weight, of the ethanol will be adsorbed by carbon which has a poor affinity for ethanol. Wet scrubbing with water is a feasible method but has a major drawback. The ethanol does not reliably remain in water for any long period and must be oxidized or otherwise destroyed or recaptured by other means. Using an on-site water treatment method to perform this task would only escalate cost

beyond that of other feasible control measures. The two control measures found to be suitable for this proposed project were the regenerative thermal oxidizer and the catalytic oxidizer.

Attachments 2 and 3 are the cost effectiveness calculations for a regenerative thermal oxidizer and catalytic oxidizer, respectively, based on the District's CONCOST program and the maximum flowrate of 60,000 acfm. The maximum flowrate for each of the two filler lines was determined as follows:

$$\begin{aligned}\text{Volumetric Air flow per line} &= 150 \text{ feet/minute}^1 \times 196 \text{ square/feet}^2 \\ &= 29,400 \text{ ft}^3/\text{minute} \text{ (rounded up to } 30,000 \text{ ft}^3/\text{minute)}\end{aligned}$$

<sup>1</sup>The capture velocity should be between 100 and 200 fpm (American Conference of Governmental Industrial Hygienists (ACGIH) Industrial Ventilation, A Manual of Recommended Practice, 22<sup>nd</sup> Edition, Table 3-1). The mid-point of 150 fpm was chosen.

<sup>2</sup>An enclosure with plan dimensions of 14' x 14' was chosen to be the most realistic size after considering the following constraints: (A) The enclosure had to be large enough for personnel to enter for inspection and operation, (B) the enclosure had to be large enough to prevent a safety hazard to personnel working in the filler area due to exposure to highly concentrated carbon monoxide (CO<sub>2</sub>) gases used to blanket the filling area and (C) the enclosure had to be easily cleanable to minimize the possibility of biological contamination of the beer.

The determination of the air flow rate is explained more fully in the SECOR letter to the District dated, September 16, 2004. See Attachment 4.

The cost effectiveness for abating 19.741 tpy POC for a regenerative thermal oxidizer is \$780,104/19.741 tpy = \$39,517/ton; the cost effectiveness for abating 19.741 tpy POC for a catalytic incinerator is \$733,655/19.741 tpy = \$37,164/ton. The applicant's cost-effectiveness calculations for a regenerative thermal oxidizer and catalytic incinerator were, similarly, in the \$35,000 to \$36,000 range.

Therefore, since the cost effectiveness for controlling these emissions exceeds the \$17,500/ton POC reduced guidelines, the BACT determination for this project is that no additional control measures will be required. This determination is consistent with the EPA RACT/BACT/LAER Clearinghouse (RBLC) finding for the Anheuser-Busch brewery in Houston. No BACT determination could be found in the CARB BACT Database for filling beer bottles or related processes.

## STATEMENT OF COMPLIANCE

S-158 bottle filling line 1 is subject to Regulation 8 Rule 2 Section 301 for Miscellaneous Operations. Emissions will not exceed 15 lb. and 300 ppm total carbon, dry basis, per day, from each source. The ppm of ethanol as total carbon is calculated to be less than 7 ppm (Attachment 3).

***Offsets are required because S-158 will increase plant cumulative emissions by 19.741 tpy POC. Since the total plant cumulative increase is above 15 tpy but below 50 tpy, offset credits will be obtained from the District's Small Facility Bank.***

***A Toxic Risk Screen Analysis is not required for S-158 since ethanol emissions will not exceed the 870,000 lb/yr trigger level.***

The project is deemed categorically exempt from CEQA by the City of Fairfield Department of Planning and Development because it involves replacement of existing mechanical bottling equipment with new, modern facilities, and involves negligible or no expansion of use beyond that existing at the brewery. A Notice of Exemption was filed with the County of Solano on 8/16/04.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

Issue A Permit to Operate for:

S-158 Bottle Line 1 with two fillers, 1800 bottles/min

## CONDITIONS

Permit conditions for S-158 Bottle Line 1, Anheuser-Busch, Plant #606, A#9737

3. The owner/operator shall not exceed 1800 bottles/minute through S-158. [Basis: Cumulative Increase]
4. The owner/operator shall not exceed 6,351,088 bbls/year through S-158. [Basis: Cumulative Increase]
5. The owner/operator shall maintain records in a District-approved logbook on a weekly basis of bottle throughput from this line. Records shall be maintained for a period of at least 5 years and made available upon request to district staff. [Basis: Recordkeeping]

**Appendix J**

**Engineering Evaluation  
Application # 10483**

**ANHEUSER-BUSCH**

**S-161, S-162, and S-163 Videojet 2000  
Bottle Label Coders**

Application No. 10483

September 9, 2004

INTRODUCTION

*Anheuser-Busch is applying for 3 new Videojet 2000 bottle label coders at their facility in Fairfield, CA.*

**S-161 Videojet Bottle Label Coder  
S-162 Videojet Bottle Label Coder  
S-163 Videojet Bottle Label Coder**

Videojet bottle label coders print product codes on the *plastic* labels of bottles produced at this facility.

EMISSIONS

Each Videojet bottle label coder will use 13 gallons of ink and 23 gallons of make-up fluid, plus 7 gallons of make-up fluid for clean-up (for a total of 30 gallons), annually:

S-146:  $(13 \text{ gal/yr})(7.2 \text{ lb/gal}) + (30 \text{ gal/yr})(6.7 \text{ lb/gal})$   
= 294.6 lb POC/yr (0.147 tpy POC)

S-147:  $(13 \text{ gal/yr})(7.2 \text{ lb/gal}) + (30 \text{ gal/yr})(6.7 \text{ lb/gal})$   
= 294.6 lb POC/yr (0.147 tpy POC)

S-148:  $(13 \text{ gal/yr})(7.2 \text{ lb/gal}) + (30 \text{ gal/yr})(6.7 \text{ lb/gal})$   
= 294.6 lb POC/yr (0.147 tpy POC)

Plant Cumulative Increase

$6.437 \text{ tpy (existing)} + 0.442 \text{ tpy (new)} = 6.879 \text{ tpy POC}$

STATEMENT OF COMPLIANCE

S-161, S-162, and S-163 are subject to Regulation 8, Rule 4, General Solvent and Surface Coating Operations. The sources will not emit more than 5 tpy VOC.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

The emissions of ethanol do not trigger a toxic risk screen since ethanol emissions are below the 8.7E5 lb/yr. trigger level.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

BACT, Offsets, PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

### Issue A Permit to Operate for:

*S-161 Videojet Bottle Label Coder, Model 2000*

*S-162 Videojet Bottle Label Coder, Model 2000*

*S-163 Videojet Bottle Label Coder, Model 2000*

## CONDITIONS

Permit conditions for S-161, S-162, and S-163 Videojet 2000 bottle label coders, Anheuser-Busch, Plant #606, A#10483

- 1. The owner/operator shall limit ink usage at each source to not more than 13 gallons of Videojet ink and 23 gallons of Videojet make-up fluid usage in any consecutive 12-month period. [cumulative increase]***
- 2. The owner/operator shall limit clean-up solvent usage at each source to not more than 7 gallons of Videojet make-up fluid in any consecutive 12-month period. [cumulative increase]***
- 3. The owner/operator shall obtain written authorization from the District prior to using any ink other than Videojet 16-8540 and any make-up fluid other than Videojet 16-8545. [cumulative increase]***
- 4. The owner/operator shall maintain a District approved logbook on an annual basis of the quantity of ink used and the amount of clean-up solvent used. The owner/operator shall maintain records for a period of at least 5 years from the date of entry and make them readily available to District staff upon request. [recordkeeping]***

**Appendix K**

**Engineering Evaluation  
Application # 11782**

## **ANHEUSER-BUSCH**

### **Change in Permit to Operate Conditions for S-132 & S-133 Keg Coders**

Application No. 11782

April 18, 2005

#### INTRODUCTION

*Anheuser-Busch is applying for a change in Permit to Operate conditions for 2 keg coders at their facility in Fairfield, CA.*

#### **S-132 Keg Coder S-133 Keg Coder**

Anheuser-Busch is replacing the current Videojet coders with Diagraph coders due to reliability issues with the existing Videojet coders. Both coders print product codes on the beer kegs produced at this facility. In addition, the current Videojet ink will be replaced with ink supplied by the Linx Company.

#### EMISSIONS

The Linx Ink uses acetone and ethanol instead of the 2-butanone and methanol constituents of the Videojet ink. Also, acetone will be used for clean-up solvent. Anheuser-Busch indicates that ink throughput for both S-132 and S-133 is 1.1 gallons ink/year; total acetone in the solvent thinner is 5.5 gallons/year for both coders. Clean-up solvent is 5 gal/year/coder. Except for acetone, the throughputs in existing condition no. 16202 (which includes aggregate ink usage at S-75, 76, 77, 78, 132 and 133) do not need to be increased.

Total acetone usage (acetone usage rounded up to near whole number and doubled, per AB):  
 $(2)(6 + 2 \text{ gal/yr})(6.7 \text{ lb/gal}) + (2)(5 \text{ gal/yr})(6.7) = 174.2 \text{ lb NPOC/yr (0.087 tpy NPOC)}$

Plant Cumulative Increase

NPOC:  $0 \text{ tpy (existing)} + 0.087 \text{ tpy (new)} = 0.087 \text{ tpy NPOC}$



## STATEMENT OF COMPLIANCE

S-132 and S-133 are subject to Regulation 8, Rule 4, General Solvent and Surface Coating Operations. The sources will not emit more than 5 tpy VOC, per Section 302.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

The emissions of ethanol do not trigger a toxic risk screen since ethanol emissions are below the 8.7E5 lb/yr. trigger level.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

BACT, Offsets, PSD, NSPS, and NESHAPS are not triggered.

## RECOMMENDATION

### **Issue A Change in Permit to Operate Conditions for:**

**S-132 Keg Coder**

**S-133 Keg Coder**

## CONDITIONS

***The following permit condition 16202 is amended as follows for S-75, 76, 77, 78, 132 and 133, Anheuser-Busch, Plant #606, A#11782:***

1. Owner/operator shall not use more than 359 gallons of ink Ink usage at S-75, 76, 77, 78, 132, and 133 combined shall not exceed 359 gallons in any consecutive 12-month period. Owner/operator shall not use more than 33 gallons of POC for Solvent thinning usage at S-75, 76, 77, 78, 132, and 133 combined shall not exceed 33 gallons in any consecutive 12-month period. [Basis: cumulative increase]
2. Owner/operator shall not use more than 26 gallons/year of acetone (including ink content, solvent thinner and clean up) in any consecutive 12-month period. [Basis: cumulative increase]
3. Owner/operator shall not use more than 1,157 gallons ink Ink usage at S-120, 121, 128, and 138 combined shall not exceed 1,157 gallons in any consecutive 12-month period. Owner/operator shall not use more than 187 gallons of POC for Solvent thinning usage at S-120, 121, 128, and 138 combined shall not exceed 187 gallons in any consecutive 12-month period. [Basis: cumulative increase]

4. A District approved logbook shall be maintained on a monthly basis of the amount of ink and solvent used in these sources. Records shall be retained for a period of at least 5 years from the date of entry and made readily available to District staff upon request. [Basis: recordkeeping]

**Appendix L**

**Engineering Evaluation  
Application # 12012**

**ANHEUSER-BUSCH**

**S-131 Diagraph Ink Case Coder**

Application No. 12012

April 26, 2005

INTRODUCTION

*Anheuser-Busch is applying for a Permit to Operate for:*

**S-131 Diagraph Ink Case Coder**

*at their facility in Fairfield, CA.*

Anheuser-Busch is adding an additional coder to bottling line 1 (BL 01). Coders print codes on the products produced at this facility.

EMISSIONS

Anheuser-Busch is requesting that the conditions for this coder be included with the coders covered by condition no. 16202, Part 3 (S-120, S-121, S-128, and S-138).

There will not be an increase in ink or solvent throughput; therefore, there will be no increase in emissions from this source.

STATEMENT OF COMPLIANCE

S-131 is subject to Regulation 8, Rule 4, General Solvent and Surface Coating Operations. The source will not emit more than 5 tpy VOC, per Section 302.

This project is over 1000 feet from the nearest school and therefore is not subject to the public notification requirement of Regulation 2-1-412.

The emissions of ethanol do not trigger a toxic risk screen since ethanol emissions are below the 8.7E5 lb/yr. trigger level.

This application is considered to be ministerial under the District's CEQA Regulation 2-1-311 because the evaluation is a ministerial action conducted using the fixed standards and objective measurements outlined in the District's Permit Handbook, Chapter 5.7.

Offsets, PSD, NSPS, and NESHAPS are not triggered. BACT is not triggered since daily emissions of POC and NPOC each will not exceed 10 pounds (Regulation 2-2-301). If BACT were triggered, the source would likely be in compliance with BACT 2 requirements for General

Solvent and Surface Coating Operations. BACT 2 requires minimizing the use of solvents, and use of lowest practical vapor pressure solvents. In accordance with the memorandum of February 17, 2000, by William deBoisblanc, the applicant will be required to maintain monthly records.

## RECOMMENDATION

Issue A Permit to Operate for:

### **S-131 Diagraph Ink Case Coder**

## CONDITIONS

*The following permit condition 16202 is amended as follows for S-75, S-76, S-77, S-78, S-120, S-121, S-128, S-131, S-132, S-133 and S-138, Anheuser-Busch, Plant #606, A#12012:*

1. Owner/operator shall not use more than 359 gallons of ink at S-75, 76, 77, 78, 132, and 133 combined in any consecutive 12-month period. Owner/operator shall not use more than 33 gallons of POC for solvent thinning at S-75, S-76, S-77, S-78, S-132, and S-133 combined in any consecutive 12-month period. [Basis: cumulative increase]
2. Owner/operator shall not use more than 26 gallons/year of acetone at S-75, S-76, S-77, S-78, S-132, and S-133 combined (including ink content, solvent thinner and clean up) in any consecutive 12-month period. [Basis: cumulative increase]
3. Owner/operator shall not use more than 1,157 gallons ink at S-120, S-121, S-128, S-131 and S-138 combined in any consecutive 12-month period. Owner/operator shall not use more than 187 gallons of POC for solvent thinning at S-120, S-121, S-128, S-131 and S-138 combined in any consecutive 12-month period. [Basis: cumulative increase]
4. A District approved logbook shall be maintained on a monthly basis of the amount of ink and solvent used in these sources. Records shall be retained for a period of at least 5 years from the date of entry and made readily available to District staff upon request. [Basis: recordkeeping]

**Appendix M**

**BAAQMD Compliance Report**