



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • www.aqmd.gov

May 12, 2011

Mr. Gerardo C. Rios  
Chief, Permits Office  
U.S. EPA Region IX, AIR 3  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Dear Mr. Rios:

**Subject: Abbott Cardiovascular Systems – I.D. No. 45489, Title V Permit  
Modification**

Abbott Cardiovascular Systems (ID 45489) has proposed to revise their Title V Permit as follows:

- Modification of laser cutting and lathing system

This is a medical device manufacturing facility located at 26531 Ynez Rd., Temecula, CA .

The proposed permit revision is considered as a “deminimis significant permit revision” to their Title V Permit. Enclosed for your review are the permit evaluation and proposed permit for the proposed permit revision. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period will begin on May 12, 2011.

If you have any questions or need additional information regarding the proposed permit revision, please contact Ms. Dixie Richards at (909) 396-2395.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian L. Yeh", is written over a faint, larger version of the same signature.

Brian L. Yeh  
Senior Manager  
Mechanical, Chemical, Public Services

BLY:DR

Enclosure

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <i>ENGINEERING DIVISION</i>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	PAGES 5	PAGE 1
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COMPANY NAME: ABBOTT CARDIOVASULAR SYSTEMS AKA ABBOTT VASCULAR SYSTEMS  
PREVIOUSLY KNOWN AS GUIDANT, ADVANCED CARDIOVASCULAR

COMPANY ADDRESS: 26531 YNEZ RD  
TEMECULA, CA 92591

EQUIPMENT LOCATION: SAME AS ABOVE

**EQUIPMENT DESCRIPTION**

A/N 515810

LASER CUTTING AND LATHING SYSTEM, BUILDING A, CONSISTING OF:

11 LASERS, SPI FIBER, EACH 100 WATTS MAXIMUM, 5-10 WATTS IN USE

5 LASERS, LASAQ\*, EACH 250 WATTS MAXIMUM, 5 – 10 WATTS IN USE

A/N 516407

**TITLE V MODIFICATION**

**BACKGROUND**

AN 515810 was submitted 10/27/10 for existing equipment without permit, with a request for expedited processing. A/N 516407 for modification of the Title V permit was submitted 11/19/10, without fee (it was agreed to remove the expedite request and apply that money to the Title V modification application). Revised modeling was submitted 1/28/11 and review was completed 2/23/2011.

The application package indicated that there were 40 laser cutting machines processing stainless steel and cobalt chrome stents. It was subsequently learned that there are actually sixteen processing stainless steel and cobalt chrome stents, and 25 processing nickel titanium stents (41 total). Another four non-production lasers process nickel titanium or polyester polymer stents (two each). There are also numerous other lasers cutting plastic catheters.

Applicant was informed that A/N 515810 would be used to cover the existing stainless steel and cobalt chrome stent lasers.

Previous A/N 413847 was submitted for 20 laser cutting machines operating without permit. An additional 6 machines were installed per the evaluation. A/N 429270 was submitted for a permit to construct an additional 4 laser machines (30 total, all processing stainless steel or cobalt chrome). P/N F71663 for PC/PO was issued 11/24/04 for 15 Quatronix lasers, 7.5 watts each, and 15 Lasag model KLS246 lasers, 6 watts each. Applicant states that four of the lasers were shipped to Ireland. It is not known if those lasers were ever placed into operation at this facility. Ten of the previously permitted lasers are currently processing nickel titanium.

\*application package indicates NI500 PULSE YAG, but actually Lasag per inspector and information submitted subsequently

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**PROCESS DESCRIPTION**

Abbott Cardiovascular manufactures therapeutic medical devices for the treatment of atherosclerotic disease of the coronary and peripheral arteries. These devices include angioplasty balloon catheters, guide wires, wire-mesh stents, and accessories.

These laser-cutting machines are used to cut and lathe stainless steel and cobalt chrome stents. Currently, this equipment is processing 20% stainless steel, 80% cobalt chrome. A stent is made by cutting a hollow tube using a laser beam. About 400 stents are made per machine per day. A laser beam is also used to lathe the surface of the stent.

Per the applicant, the lasers are programmed to be on for only picoseconds at a time, so the in use rating is much less than the maximum rating based on continuous operation.

**EMISSION CALCULATIONS**

Since there were no emission factors available for laser cutting when the previous evaluation was done, it was assumed to be 30% of the plasma arc cutting factor, as had been District practice. Recently, source testing was completed to establish a laser cutter factor. Results indicate that laser cutting PM emissions are comparable to plasma arc cutters, thus the 30% factor was inappropriate.

Emission factors from stainless steel laser cutting source test conducted 6/2-3/2010 at Klume Industries, ST report 10-291

0.18 lb PM/lb material cut (test did not indicate PM10, 100% PM10 will be assumed)  
 18% Cr in material processed  
 2.0 x 10<sup>-4</sup> lb Cr+6/lb material cut

From previous evaluation, adjusted for current emission factor, higher density (now processing 80% cobalt chrome), and longer stents:

**Cutting stent:**

Area of cut A = 5.22e-4 sq. in.  
 Volume of cut V = A x thickness, 0.0008"  
 Weight W = V x density D, 0.31 lb/cu. in.(cobalt chrome)

W = 5.22e-4 sq. in x 0.0008"  
 = 5.22e-4x 0.0008" x 0.31 lb/cu. in.  
 = 1.3e-7 lb metal melted/stent cut

PM generated from cutting = (0.18 lb/lb metal melted)(1.3e-7 lb melted/stent cut)  
 = 2.33 e-8 lb PM/stent cut

**Lathing of stent:**

Area of the stent = Ao (outside)- Ai (inside), [the thickness of the tubing]  
 Length = 2.28 in.

Area A = 2.64e-4 sq. in.  
 Length L = 2.28"

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$$\begin{aligned} \text{Vol.} &= \text{AL} \\ &= (2.64\text{e-4sq. in.})(2.28\text{in}) \\ &= 6.02 \text{ e-4 cu. in.} \end{aligned}$$

$$\begin{aligned} \text{Weight of metal lathed W} &= (6.02\text{e-4 cu. in.})(0.31 \text{ lb/cu. in.}) \\ &= 1.87\text{e-4 lb metal melted} \end{aligned}$$

$$\begin{aligned} \text{PM emissions from lathing} &= 1.87 \text{ e-4 lb metal melted} \times 0.18 \text{ lb PM/lb metal melted} \\ &= 3.366 \text{ e-5 lb PM/stent lathed} \end{aligned}$$

$$\text{PM emissions (cutting + lathing)} = 2.33 \text{ e-8 lb/stent} + 3.366\text{-5 lb/stent} = 3.366 \text{ e-5 lb PM/ stent}$$

$$\text{Total PM emissions} = 3.366 \text{ e-5 lb PM/stent} \times 400 \text{ stents/day/machine} \times 16 \text{ machines} = 0.215 \text{ lb PM/day}$$

Toxic emissions for cobalt chrome and stainless steel stents

Cobalt chrome: 21% chrome

Stainless steel: 20% chrome, 12% Ni

Using the test factor for Cr+6 for both stainless steel and cobalt chrome, and ratio for maximum chrome content:

$$2.0 \times 10^{-4} \text{ lb Cr+6/lb material cut} \times (21\% \text{ Cr}/18\% \text{ Cr}) = 2.33 \times 10^{-4} \text{ lb Cr+6/lb material melted}$$

$$\begin{aligned} (2.33 \times 10^{-4} \text{ lb Cr+6/lb material melted})(1.3\text{e-7 lb metal melted/stent cut} + 1.87\text{e-4 lb metal melted/stent lathed}) \\ = 4.36 \text{ e-8 lb Cr+6/stent} \end{aligned}$$

$$(4.36 \text{ e-8 lb Cr+6/stent})(6400 \text{ stents/day}) = 2.79 \text{ e-4 Cr+6/day (assuming all cobalt chrome processed, slightly less for stainless steel)}$$

Using the test factor for PM, and ratio to maximum percent Ni

$$3.366 \text{ e-5 lb PM /stent} \times 0.12 = 4.04 \text{ e-6 lb Ni/stent}$$

$$4.04 \text{ e-6 lb Ni/stent} \times 6400 \text{ stents/day} = 0.026 \text{ lb Ni/day (assuming all stainless steel processed)}$$

Exceeds 1 in a million risk

Re-evaluated based on 6000 stents/day total, 1500 stainless steel stents/day (as in revised HRA submittal)

$$\begin{aligned} 4.36 \text{ e-4 lb Cr+6/stent} \times 6000 \text{ stents/day} &= 2.6 \text{ e-4 lb Cr+6/day (assuming all cobalt chrome processed, slightly less for ss)} \\ &= 0.095 \text{ lb Cr+6/yr (max 365 day/yr)} \end{aligned}$$

$$\begin{aligned} 4.04 \text{ e-6 lb Ni/stent} \times 1500 \text{ stents/day} &= 0.0061 \text{ lb Ni/day} \\ &2.23 \text{ lb Ni/yr (max 365 day/yr)} \end{aligned}$$

Tier 4 risk assessment

Per the health risk assessment submitted 1/28/11, risk was 1.02 in a million for 6000 stents per day (1500 stainless steel).

Per District modeling review, "the emission factors used are not consistent with the information contained in the HARP transaction file, but are consistent with the emission listed in Table 6 of the HRA. The emissions from Table 6 were used and assumed to be correct". Based on the Table 6 emissions (0.0548 lb Cr+6/yr, 1.3 lb Ni/yr) peak worker risk was 0.48 in a million.

- Applicant calculated emissions using the density of stainless steel (.3), rather than cobalt chrome (.31). 80 % of the stents currently processed are cobalt chrome, with no restriction on cobalt chrome other than the total, so could process 100% cobalt chrome. Results will be adjusted upward.
- Largest cobalt chrome or stainless steel stents processed are 2.28 inches per information obtained from the facility by the inspector. Information submitted with the application and used in the HRA was 2 inches. Cutting emissions

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are insignificant compared to the lathing emissions, which are proportional to the length. Results will be adjusted upward.

- Table 6 assumes 250 days/yr. Applicant proposed a daily limit only, therefore maximum would be 365 days/yr. Results will be adjusted upward.
- Ratio to maximum capacity (6400 stents/day for 16 machines). Applicant stated currently processing 20% stainless steel, but HRA was based on 25%. Limit to 25%

$(.48)(.31/.3)(2.28/2)(365/250)(6400/6000) = 0.88$  in a million risk for 6400 stents/day (total ss and cobalt Cr), 1600 stainless steel stents/day (25% of total)

#### RULE REVIEW

- Rule 212 Standards for approving permits  
212(c)(1) Using the website Great Schools, the closest school, Temecula Montessori, is 0.4mile (2112 feet) from Abbott Cardiovascular. A public notice is not required under this paragraph.
- 212(c)(2) All pollutant emissions are less than the threshold. A public notice is not required under this paragraph.  
212(c)(3) Risk exceeds R1401 threshold for maximum worst case production on all 16 machines. Number of stents produced will be limited so as to limit risk to below one in one million. A public notice is not required under this paragraph.
- RULE 219 Equipment not requiring a written permit  
No applicable exemption. Recent source testing indicates that emissions are higher than previously believed, thus a future exemption seems unlikely. Exceeds one in one million risk unless limited by permit condition. A permit is required.
- RULE 401 Visible emissions  
Compliance is expected
- RULE 402 Nuisance  
Compliance is expected
- REG XIII New Source Review  
The total PM emission from this equipment is 0.2 lb/day, max, for 16 machines. BACT and offsets for PM are not required. Below screening level for PM modeling. Complies
- RULE 1401 Toxics  
Previous evaluation indicated that the room was vented to a scrubber, exhausted out a 49 foot stack (point source). These lasers are in a different building (closer to the nearest commercial receptor), and are not vented to control (25 foot volume source). Some of the 30 previously permitted lasers have been replaced, and some are processing different material and/or larger stents than previously indicated. Total number of process lasers has increased to 41. Does not qualify as functionally identical replacement or modification with no increase in emissions.

Risk threshold is on a permit unit basis. All of the lasers processing cobalt chrome or stainless steel (which are all in the same room) are considered to be a permit unit as determined by management.

Exceeds 1 in 1 million risk for maximum worst case capacity (6400 stainless steel stents/day). TBACT is a HEPA filter. Does not comply.

The number of stents will be limited to be below 1 in 1 million risk.

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Per the health risk assessment submitted 1/28/11, adjusted risk is 0.88 in a million for maximum capacity of 6400 stents per day, total (maximum 21% Cr), of which 25% (1600 stents/day) are stainless steel (12% Ni, 20% Cr)

Chronic and Acute risks are less than one, complies

REG XXX

Title V

This is a diminimus significant permit revision. 45 day EPA notice is required.

**CONCLUSIONS AND RECOMMENDATION**

Compliance is expected with permit limits on the number of stents processed. Approval of a conditional permit to operate is recommended.

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**Facility Equipment and Requirements  
(Section D)**

This section consists of a table listing all permitted equipment at the facility, facility wide requirements, all individual Permits to Construct and Permits to Operate issued to various equipment at the facility, and Rule 219-exempt equipment subject to source-specific requirements. Each permit and Rule 219-exempt equipment will list operating conditions including periodic monitoring requirements, and applicable emission limits and requirements that the equipment is subject to. Also included is the rule origin and authority of each emission limit and permit condition.

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMITTED EQUIPMENT LIST**

THE FOLLOWING IS A LIST OF ALL PERMITS TO CONSTRUCT AND PERMITS TO OPERATE AT THIS FACILITY:

<b>Application number</b>	<b>Permit to Operate number</b>	<b>Equipment description</b>
279359	D71648	OVEN, BAKING
286476	D88226	SPRAY BOOTH OTHER
309075	D96520	OVEN, BAKING
317616	F4131	I C E (>500 HP) EM ELEC GEN DIESEL
338638	F13090	I C E (50-500 HP) EM ELEC GEN-DIESEL
358501	F22021	I C E (>500 HP) EM ELEC GEN-DIESEL
518886		SCRUBBER
518885		SCRUBBER
419503	F71623	AIR POLLUTION CONTROL SYSTEM
515810		LASER CUTTING MACHINE
443789	F83293	I C E (>500 HP) EM ELEC GEN-DIESEL
447835	F83295	ETHYLENE OXIDE STERILIZER, HOSPITAL
447836	F83294	ETHYLENE OXIDE STERILIZER, HOSPITAL
447837	F83299	AIR POLLUTION CONTROL SYSTEM
518884		AIR POLLUTION CONTROL SYSTEM
497147	G5761	AIR POLLUTION CONTROL SYSTEM
487407		BOILER (5-20 MMBTU/HR) NAT GAS ONLY
487409		BOILER (5-20 MMBTU/HR) NAT GAS ONLY
487410		BOILER (5-20 MMBTU/HR) NAT GAS ONLY

**NOTE:** EQUIPMENT LISTED ABOVE THAT HAS NO CORRESPONDING PERMIT TO OPERATE NUMBER IS ISSUED PERMIT TO CONSTRUCT. THE ISSUANCE OR DENIAL OF ITS PERMIT TO OPERATE IS SUBJECT TO ENGINEERING FINAL REVIEW. ANY OTHER APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT OR PERMITS TO OPERATE WILL NOT BE FOUND IN THIS TITLE V PERMIT.

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**FACILITY WIDE CONDITION(S)**

**Condition(s):**

1. EXCEPT FOR OPEN ABRASIVE BLASTING OPERATIONS, THE OPERATOR SHALL NOT DISCHARGE INTO THE ATMOSPHERE FROM ANY SINGLE SOURCE OF EMISSIONS WHATSOEVER ANY AIR CONTAMINANT FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR WHICH IS:
  - A. AS DARK OR DARKER IN SHADE AS THAT DESIGNATED NO. 1 ON THE RINGLEMANN CHART, AS PUBLISHED BY THE UNITED STATES BUREAU OF MINES; OR
  - B. OF SUCH OPACITY AS TO OBSCURE AN OBSERVER'S VIEW TO A DEGREE EQUAL TO OR GREATER THAN DOES SMOKE DESCRIBED IN SUBPARAGRAPH (A) OF THIS CONDITION. [RULE 401]
2. THE OPERATOR SHALL NOT USE FUEL OIL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 15 PPM BY WEIGHT. [RULE 431.2]
3. THE OPERATOR SHALL NOT USE GASEOUS FUEL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 40 PPMV CALCULATED AS HYDROGEN SULFIDE AVERAGED OVER FOUR HOURS. [RULE 431.1].
4. THE OPERATOR SHALL LIMIT THE PLANTWIDE NITROGEN OXIDES (NO<sub>x</sub>) EMISSIONS TO LESS THAN FOUR (4) TONS IN ANY ONE YEAR. [RULE 1303(b)(2)-OFFSET]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. D71648**

**A/N 279359**

**Equipment Description:**

BAKE OVEN, GRUENBERG, 4'-0" W. X 6'-0" L. X 11'-0" H., NATURAL GAS FIRED, WITH ONE 788,000 BTU/HR BURNER, ONE 1/3-H.P. COMBUSTION AIR FAN, TWO 10-H.P. CIRCULATING FANS, AND ONE 3/4-H.P. EXHAUST FAN.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE TOTAL QUANTITY OF COATINGS USED IN THE COATING OF ARTICLES PROCESSED IN THIS EQUIPMENT SHALL NOT EXCEED 1 GALLON IN ANY ONE DAY.  
[RULE 1303(b)(2)-OFFSET]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

Permit No. D88226

A/N 286476

**Equipment Description:**

## AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. SPRAY BOOTH, FLOOR TYPE, TSI MODEL 3133, 4' W. X 10'-6" L., WITH TEN 20" X 20" EXHAUST FILTERS, AND A 1.5 H.P. EXHAUST FAN.
2. SCRUBBER, PACKED TOWER TYPE, DUALL, MODEL FW303, 11'-4" H. X 3'-9" DIA. OVERALL DIMENSIONS, WITH A 2 H.P. RECIRCULATION PUMP, AND A 5 H.P. BLOWER.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE SPRAY BOOTH SHALL NOT BE OPERATED UNLESS ALL EXHAUST AIR PASSES THROUGH FILTER MEDIA AT LEAST 2 INCHES THICK.  
[RULE 1303(a)(1)-BACT]
4. A GAUGE SHALL BE INSTALLED TO INDICATE, IN INCHES OF WATER, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE SPRAY BOOTH EXHAUST FILTERS. IN OPERATION, THE PRESSURE DIFFERENTIAL SHALL NOT EXCEED 0.25 INCH OF WATER.  
[RULE 1303(a)(1)-BACT]
5. A FLOWMETER, INDICATING GALLONS PER MINUTE, SHALL BE INSTALLED IN THE SCRUBBER RECIRCULATION LINE.  
[RULE 1303(a)(1)-BACT]
6. NOT LESS THAN 40 GALLONS PER MINUTE OF WATER SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
7. THERE SHALL BE A CONTINUOUS OVERFLOW OF WATER FROM THE SCRUBBER SUMP.  
[RULE 1303(a)(1)-BACT]

**Periodic Monitoring:**

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

8. THE OPERATOR SHALL DETERMINE AND RECORD THE FLOW RATE OF THE SCRUBBING SOLUTION ONCE EVERY DAY.  
[RULE 3004 (a)(4)MONITORING AND RECORDKEEPING]

**Emissions And Requirements:**

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 109

VOC: RULE 1107, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

PM: RULE 481

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

[RULES 109, 404, 481, 1107, 1171]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. D96520  
A/N 309075**

**Equipment Description:**

OVEN, GRIEVE, MODEL NO. TB-500, SERIAL NO. 640910, 5'-4" W. X 6'-3" L. X 5'-10" H., WITH ONE 24 KW ELECTRIC HEATER, ONE 1 HP CIRCULATING FAN AND ONE 1/3 HP EXHAUST FAN.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY COMPOUNDS IDENTIFIED AS CARCINOGENIC AIR CONTAMINANTS IN RULE 1401 AS AMENDED DECEMBER 7,1990.  
[RULE 1401]
4. THE TOTAL QUANTITY OF COATINGS USED IN THIS EQUIPMENT SHALL NOT EXCEED 25 POUNDS IN ANY ONE DAY.  
[RULE 1303(b)(2)- OFFSET]
5. IN ADDITION TO THE RECORD KEEPING REQUIREMENTS IN RULE 109, THE OPERATOR SHALL KEEP ADEQUATE RECORDS FOR THIS EQUIPMENT TO VERIFY DAILY COATING USAGE IN POUNDS. ALL RECORDS SHALL BE PREPARED IN A FORMAT WHICH IS ACCEPTABLE TO THE DISTRICT, SHALL BE RETAINED ON THE PREMISES FOR AT LEAST FIVE YEARS, AND SHALL BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR HIS REPRESENTATIVE.  
[RULE 109, 1303(b)(2)- OFFSET]
6. THIS OVEN SHALL NOT BE OPERATED AT TEMPERATURES ABOVE 220 DEGREES FAHRENHEIT.  
[RULE 401]

**Emissions And Requirements:**

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:  
  
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
[RULE 404]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. F4131  
A/N 317616**

**Equipment Description:**

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3512 TA, TWELVE CYLINDER, DIESEL FUELED, 1568 B.H.P., TURBOCHARGED/AFTERCOOLED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE OPERATING TIME OF THIS ENGINE SHALL NOT EXCEED 199 HOURS IN ANY ONE YEAR.  
[RULE 1110.2, 1304(a)(4)-OFFSET AND MODELING EXEMPTION]
4. A NON-RESETTABLE TIMER SHALL BE MAINTAINED TO INDICATE THE ENGINES ELAPSED OPERATING TIME.  
[RULE 1110.2, 1304(a)(4)-OFFSET AND MODELING EXEMPTION]
5. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE ELAPSED OPERATING TIME, IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.  
[RULE 1110.2, 1304(a)(4)-OFFSET AND MODELING EXEMPTION]
6. THIS ENGINE SHALL HAVE THE FUEL INJECTION TIMING RETARDED BY FOUR DEGREES WITH RESPECT TO STANDARD TIMING.  
[RULE 1303(a)(1)-BACT]

**Emissions And Requirements:**

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
[Rule 404]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. F13090  
A/N 338638**

**Equipment Description:**

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 6 CYLINDERS, TURBOCHARGED/AFTERCOOLED DIESEL FUELED, MODEL NO 3406 DITA (300 KW), DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRIC GENERATOR.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. A TIMER SHALL BE MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.  
[RULE 1110.2, 1304(a)(4)- OFFSET AND MODELING EXEMPTION]
4. THE OPERATING TIME OF THIS ENGINE SHALL NOT EXCEED 199 HOURS IN ANY ONE YEAR.  
[RULE 1110.2, 1304(a)(4)- OFFSET AND MODELING EXEMPTION]
5. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE ELAPSED OPERATING TIME, IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1110.2, 1304(a)(4)-OFFSET AND MODELING EXEMPTION]

**Emissions And Requirements:**

6. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404. SEE APPENDIX B FOR EMISSION LIMITS  
[Rule 404]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. F22021**

**A/N 358501**

**Equipment Description:**

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 16 CYLINDERS, TURBOCHARGED, AFTERCOOLED, MODEL NO. 3516 DITA (1750 KW), 2518 BHP, DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. A TIMER SHALL BE MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.  
[RULE 1303(a)(1)-BACT]
4. THE OPERATING TIME OF THIS ENGINE SHALL NOT EXCEED 72 HOURS IN ANY ONE YEAR.  
[RULE 1303(a)(1)-BACT]
5. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE ELAPSED TIME, IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303(a)(1)-BACT]
6. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO PRODUCTION TIMING AS ESTABLISHED BY CATERPILLAR IN PRODUCT NEWS BULLETIN 'REQUIREMENTS TO COMPLY WITH SCAQMD CERTIFIED EQUIPMENT'.  
[RULE 1303(a)(1)-BACT]

**Emissions And Requirements:**

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:  
PM: RULE 404. SEE APPENDIX B FOR EMISSION LIMITS  
[RULE 404]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

Permit No. G13003

A/N 518886

**Equipment Description****AIR POLLUTION CONTROL SYSTEM CONSISTING OF:**

1. SCRUBBER, HARRINGTON, MODEL ECH 4, 4' -0" W. x 12' -0" L x 7' -3" H, WITH LANPAC POLYPROPYLENE PACKING MEDIA, SPRAY NOZZLES, AND MIST ELIMINATOR.
2. EXHAUST SYSTEM WITH TWO 5.36-HP BLOWERS, VENTING UP TO EIGHT BENCH TYPE ACID POLISHING BAYS.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE I, WITH AN EFFECTIVE DATE OF SEPTEMBER 10, 2010 OR EARLIER, EXCEPT FOR SODIUM HYDROXIDE, PHOSPHORIC ACID, HYDROCHLORIC ACID, SULFURIC ACID, NITRIC ACID, AND ETHYLENE GLYCOLS.  
[Rule 1401]
4. A DIFFERENTIAL PRESSURE GAUGE, INDICATING INCHES OF WATER COLUMN, SHALL BE INSTALLED AND MAINTAINED ACROSS THE SCRUBBER. THE DIFFERENTIAL PRESSURE ACROSS THE PACKING SHALL NOT EXCEED 2.0 INCHES OF WATER COLUMN WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]
5. A CONTINUOUS FLOW METER INDICATING THE FLOW RATE IN GALLONS PER MINUTE SHALL BE INSTALLED AND MAINTAINED ON THE RECIRCULATION LINE TO THE SCRUBBER. NOT LESS THAN 80 GALLONS PER MINUTE OF RECIRCULATING SCRUBBER SOLUTION SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

6. AN AUTOMATIC PH METER AND CONTROLLER SHALL BE INSTALLED AND MAINTAINED TO CONTINUOUSLY MEASURE AND RECORD THE pH OF THE RECIRCULATION SCRUBBING SOLUTION. THE SCRUBBING SOLUTION SHALL BE MAINTAINED AT pH 8.0 OR HIGHER WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]

**Periodic Monitoring:**

7. A DAILY OPERATION RECORD OF THIS EQUIPMENT SHALL BE MAINTAINED IN A WRITTEN FORM. THE RECORD SHALL INCLUDE, AT A MINIMUM, THE MINIMUM PH OF THE SCRUBBING SOLUTION, DIFFERENTIAL PRESSURE ACROSS THE SCRUBBER, AND FLOW RATE OF THE SCRUBBING SOLUTION AND MAKE UP WATER. THESE RECORDS SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE UPON REQUEST BY DISTRICT PERSONNEL.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. G13004  
A/N 518885**

**Equipment Description**

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. SCRUBBER, HARRINGTON, MODEL ECH 4, 4' -0" W. x 12' -0" L x 7' -3" H, WITH LANPAC POLYPROPYLENE PACKING MEDIA, SPRAY NOZZLES, AND MIST ELIMINATOR.
2. EXHAUST SYSTEM WITH TWO 5.36-HP BLOWERS, VENTING UP TO EIGHT ACID POLISHING BAYS.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE I, WITH AN EFFECTIVE DATE OF SEPTEMBER 10, 2010 OR EARLIER, EXCEPT FOR SODIUM HYDROXIDE, PHOSPHORIC ACID, HYDROCHLORIC ACID, SULFURIC ACID, NITRIC ACID, AND ETHYLENE GLYCOLS.  
[Rule 1401]
4. A DIFFERENTIAL PRESSURE GAUGE, INDICATING INCHES OF WATER COLUMN, SHALL BE INSTALLED AND MAINTAINED ACROSS THE SCRUBBER. THE DIFFERENTIAL PRESSURE ACROSS THE PACKING SHALL NOT EXCEED 2.0 INCHES OF WATER COLUMN WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]
5. A CONTINUOUS FLOW METER INDICATING THE FLOW RATE IN GALLONS PER MINUTE SHALL BE INSTALLED AND MAINTAINED ON THE RECIRCULATION LINE TO THE SCRUBBER. NOT LESS THAN 80 GALLONS PER MINUTE OF RECIRCULATING SCRUBBER SOLUTION SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

6. AN AUTOMATIC PH METER AND CONTROLLER SHALL BE INSTALLED AND MAINTAINED TO CONTINUOUSLY MEASURE AND RECORD THE pH OF THE RECIRCULATION SCRUBBING SOLUTION. THE SCRUBBING SOLUTION SHALL BE MAINTAINED AT pH 8.0 OR HIGHER WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]

**Periodic Monitoring:**

7. A DAILY OPERATION RECORD OF THIS EQUIPMENT SHALL BE MAINTAINED IN A WRITTEN FORM. THE RECORD SHALL INCLUDE, AT A MINIMUM, MINIMUM PH OF THE SCRUBBING SOLUTION, DIFFERENTIAL PRESSURE ACROSS THE SCRUBBER, AND FLOW RATE OF THE SCRUBBING SOLUTION AND MAKE UP WATER. THESE RECORDS SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE UPON REQUEST BY DISTRICT PERSONNEL.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. F71623  
A/N 419503**

**Equipment Description:**

**AIR POLLUTION CONTROL SYSTEM CONSISTING OF:**

1. CATALYTIC OXIDIZER, DONALDSON, MODEL ETO ABATOR, WITH 8.5 KW ELECTRICAL PREHEATER .
2. EXHAUST SYSTEM WITH A 3/4-H.P. BLOWER VENTING TO TWO STERILIZERS.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. CATALYST BED TEMPERATURE SHALL BE MAINTAINED ABOVE 280 DEGREES F AND NOT TO EXCEED 500 DEGREES F EXCEPT DURING START-UP OPERATIONS.  
[RULE 1303(a)(1)-BACT]
4. THIS EQUIPMENT SHALL NOT BE PURGED OR AIRWASHED UNLESS IT IS VENTED TO THE AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE.  
[RULE 1303(a)(1)-BACT]
5. THIS EQUIPMENT SHALL BE IN FULL USE WHEN THE STERILIZER IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
6. THE STERILIZER EXHAUST SYSTEM SHALL BE LEAK FREE.  
[RULE 1303(a)(1)-BACT]
7. LEAK INSPECTIONS SHALL BE CONDUCTED ONCE EVERY SIX MONTHS IN ACCORDANCE WITH RULE 1405.  
[RULE 1405]
8. RECORDS OF THE LEAK INSPECTIONS SHALL BE MAINTAINED IN ACCORDANCE WITH RULE 1405, AND KEPT ON FILE FOR AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT STAFF UPON REQUEST.  
[Rue 1405]
9. THIS EQUIPMENT SHALL COMPLY WITH THE REQUIREMENTS OF RULE 1405.  
[Rule 1405]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No.  
A/N 515810**

**Equipment Description**

LASER CUTTING AND LATHING SYSTEM, BUILDING A, CONSISTING OF:

1. 11 LASERS, SPI FIBER, EACH 100 WATTS MAXIMUM, 5 – 10 WATTS IN USE
2. 5 LASERS, LASAQ, EACH 250 WATTS MAXIMUM, 5 – 10 WATTS IN USE

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THIS EQUIPMENT SHALL NOT PROCESS MORE THAN 6400 STENTS IN ANY ONE DAY.  
[RULE 1401]
4. THIS EQUIPMENT SHALL NOT PROCESS MORE THAN 1600 STAINLESS STEEL STENTS IN ANY ONE DAY.  
[RULE 1401]
5. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE I, WITH AN EFFECTIVE DATE OF SEPTEMBER 10, 2010 OR EARLIER, EXCEPT FOR CHROMIUM (NOT TO EXCEED 21%), OR NICKEL (NOT TO EXCEED 12%).  
[Rule 1401]

**Periodic Monitoring**

6. THE OPERATOR SHALL KEEP A DAILY RECORD OF THE NUMBER OF STENTS AND THE TYPE OF ALLOY PROCESSED. SUCH RECORD SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND SHALL BE AVAILABLE TO DISTRICT STAFF UPON REQUEST.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

Permit No. F83293

A/N 443789

**Equipment Description:**

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 6 CYLINDER, TURBOCHARGED, AFTERCOOLED, MODEL 3456 DITA AA, 764 BHP, DIESEL FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE OPERATION OF THIS ENGINE BEYOND 20 HOURS PER YEAR FOR MAINTENANCE AND PERFORMANCE TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO ROTATING OUTAGES, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED, OR HAS INDICATED THAT THE DISTRIBUTION COMPANY IS EXPECTED TO ISSUE SUCH ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN THE UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.  
[RULE 1470]
4. THIS ENGINE SHALL NOT BE OPERATED MORE THAN A TOTAL OF 200 HOURS IN ANY ONE CALENDAR YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.  
[RULE 1470]
5. AN OPERATIONAL, NON-RESETTABLE ELAPSED TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.  
[RULE 1470]
6. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATE IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY COMPANY OR THE GRID OPERATOR.  
[RULE 1470]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

7. THIS ENGINE SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.  
[RULES 431.2, 1470]

**Periodic Monitoring**

8. AN ENGINE OPERATING LOG SHALL BE MAINTAINED ON A MONTHLY BASIS, WHICH SHALL INCLUDE MANUAL AND AUTOMATIC OPERATION AND SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
- A. EMERGENCY USE HOURS OF OPERATION
  - B. MAINTENANCE AND TESTING HOURS
  - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION). IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT STAFF UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
- [RULE 3004(a)(4)- MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

Permit No. F83295  
A/N 447835

**Equipment Description:**

STERILIZER, ETHYLENE OXIDE, 3M MODEL 8 XL, 8.8 CUBIC FEET INTERNAL CAPACITY.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE OPERATOR SHALL NOT OPERATE THIS STERILIZER UNLESS IT IS VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE BY THE EXECUTIVE OFFICER.  
[Rule 1303(a)(1)-BACT]
4. THIS EQUIPMENT SHALL NOT USE MORE THAN 170 GRAMS OF ETHYLENE OXIDE IN ANY ONE CYCLE.  
[Rule 1401]
5. THE OPERATOR SHALL CONDUCT NO MORE THAN TWO STERILIZING CYCLES IN THIS EQUIPMENT IN ANY ONE DAY.  
[Rule 1401]
6. THE OPERATOR SHALL MAINTAIN THE STERILIZER EXHAUST SYSTEM TO BE LEAK FREE, WITH LEAK TESTS CONDUCTED EVERY SIX MONTHS IN ACCORDANCE WITH THE TEST METHODS SPECIFIED IN RULE 1405.  
[Rule 1405]
7. THE OPERATOR SHALL NOT PURGE OR AIRWASH THIS EQUIPMENT UNLESS IT IS VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE.  
[Rule 1304(a)(1)]

**Periodic Monitoring:**

8. THE OPERATOR SHALL MAINTAIN A DAILY OPERATING LOG AND RECORD THE LEAK TESTS IN ACCORDANCE WITH RULE 1405, WHICH SHALL BE KEPT ON FILE FOR AT LEAST FIVE YEARS, AND BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.  
[RULE 3004(a)(4)- MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. F83294  
A/N 447836**

**Equipment Description:**

STERILIZER, ETHYLENE OXIDE, 3M, MODEL 8XL, 8.8 CUBIC FEET INTERNAL CAPACITY.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE OPERATOR SHALL NOT OPERATE THIS STERILIZER UNLESS IT IS VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE BY THE EXECUTIVE OFFICER.  
[Rule 1304(a)(1) BACT]
4. THIS EQUIPMENT SHALL NOT USE MORE THAN 170 GRAMS OF ETHYLENE OXIDE IN ANY ONE CYCLE.  
[Rule 1401]
5. THE OPERATOR SHALL CONDUCT NO MORE THAN TWO STERILIZING CYCLES IN THIS EQUIPMENT IN ANY ONE DAY.  
[Rule 1401]
6. THE OPERATOR SHALL MAINTAIN THE STERILIZER EXHAUST SYSTEM TO BE LEAK FREE, WITH LEAK TESTS CONDUCTED EVERY SIX MONTHS IN ACCORDANCE WITH THE TEST METHODS SPECIFIED IN RULE 1405.  
[RULE 1405]
7. THE OPERATOR SHALL NOT PURGE OR AIRWASH THIS EQUIPMENT UNLESS IT IS VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO OPERATE.  
[RULE 1304(a)(1) BACT]

**Periodic Monitoring:**

8. THE OPERATOR SHALL MAINTAIN A DAILY OPERATING LOG AND RECORD THE LEAK TESTS IN ACCORDANCE WITH RULE 1405, WHICH SHALL BE KEPT ON FILE FOR AT LEAST FIVE YEARS, AND BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.  
[RULE 1405, 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO OPERATE**

**Permit No. F83299  
A/N 447837**

**Equipment Description:**

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. CATALYTIC OXIDIZER, 3M, MODEL 50 SCFM, 5 KW ELECTRIC PREHEATER.
2. EXHAUST BLOWER, 2 HP, 50 CFM

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE CATALYST BED TEMPERATURE SHALL BE MAINTAINED ABOVE 280 BUT NOT TO EXCEED 500 DEGREES F EXCEPT DURING START-UP OPERATIONS OF THIS EQUIPMENT.  
[RULE 1303(a)(1)-BACT]
4. THE OPERATOR SHALL INSTALL AND MAINTAIN A CONTINUOUS TEMPERATURE INDICATOR AND RECORDER TO ACCURATELY INDICATE AND RECORD THE TEMPERATURE AT THE EXHAUST OF THE OXIDIZER.  
[RULE 1303(a)(1)-BACT]
5. THIS EQUIPMENT SHALL BE IN FULL USE WHEN THE STERILIZER IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
6. ONLY ONE STERILIZER SHALL BE VENTED TO THIS EQUIPMENT AT ANY ONE TIME. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF RULE 1405.  
[RULE 1303(a)(1)-BACT]
7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF RULE 1405.  
[RULE 1405]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO CONSTRUCT/OPERATE**

**Permit No.  
G13002  
A/N 518884**

**Equipment Description**

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. SCRUBBER, HARRINGTON, MODEL ECH 44-5 LB, 5' -8" W. x 11' -8" L x 6' -11" H, WITH SPRAY NOZZLE.
2. EXHAUST SYSTEM WITH TWO 20-HP BLOWERS, VENTING UP TO 10 BENCH-TYPE ACID POLISHING BAYS.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE I, WITH AN EFFECTIVE DATE OF SEPTEMBER 10, 2010 OR EARLIER, EXCEPT FOR SODIUM HYDROXIDE, PHOSPHORIC ACID, HYDROCHLORIC ACID, SULFURIC ACID, NITRIC ACID, AND ETHYLENE GLYCOLS.  
[Rule 1401]
4. A DIFFERENTIAL PRESSURE GAUGE, INDICATING INCHES OF WATER COLUMN, SHALL BE INSTALLED AND MAINTAINED ACROSS THE SCRUBBER. THE DIFFERENTIAL PRESSURE ACROSS THE PACKING SHALL NOT EXCEED 2.0 INCHES OF WATER COLUMN WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1405]
5. A CONTINUOUS FLOW METER INDICATING GALLONS PER MINUTE SHALL BE MAINTAINED IN THE SCRUBBING SOLUTION RECIRCULATION LINE TO THE SCRUBBER. NOT LESS THAN 55 GALLONS PER MINUTE OF RECIRCULATING SCRUBBER SOLUTION SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

6. THE SCRUBBING SOLUTION TO THE SCRUBBER NOZZLES SHALL BE MAINTAINED AT pH 8.0 OR HIGHER WHEN THE EQUIPMENT IT SERVES IS IN OPERATION. AN AUTOMATIC pH METER AND CONTROLLER SHALL BE INSTALLED AND MAINTAINED TO CONTINUOUSLY MEASURE AND RECORD THE pH OF THE SOLUTION.  
[RULE 1303(a)(1)-BACT]

**Periodic Monitoring:**

7. A DAILY OPERATION RECORD OF THIS EQUIPMENT SHALL BE MAINTAINED IN A WRITTEN FORM. THE RECORD SHALL INCLUDE, AT A MINIMUM, THE MINIMUM PH OF THE SCRUBBING SOLUTION, DIFFERENTIAL PRESSURE ACROSS THE SCRUBBER, AND FLOW RATE OF THE SCRUBBING SOLUTION AND MAKE UP WATER. THESE RECORDS SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE UPON REQUEST BY DISTRICT PERSONNEL.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO CONSTRUCT/OPERATE**

Permit No. G5761

A/N 497147

**Equipment Description**

AIR POLLUTION CONTROL SYSTEM NO. 1 CONSISTING OF:

1. SCRUBBER, HARRINGTON, MODEL ECH 4, 4' -0" W. X 12' -0" L. X 7' -3" H, WITH SPRAY NOZZLE.
2. EXHAUST SYSTEM WITH TWO 20-HP BLOWERS, VENTING BENCH-TYPE POLISHING STATIONS.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE I, WITH AN EFFECTIVE DATE OF MARCH 7, 2008 OR EARLIER, EXCEPT FOR SODIUM HYDROXIDE (CAS # 1310-73-2), PHOSPHORIC ACID (CAS # 7664-38-20), AND HYDROCHLORIC ACID (CAS # 7647-01-0).  
[Rule 1401]
4. NOT LESS THAN 55 GALLONS PER MINUTE OF RECIRCULATING SCRUBBER SOLUTION SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
5. A FLOW METER INDICATING GALLONS PER MINUTE (GPM) SHALL BE MAINTAINED IN THE SCRUBBING SOLUTION CIRCULATION LINE TO THE SCRUBBER.  
[RULE 1303(a)(1)-BACT]
6. THE SCRUBBING SOLUTION TO THE SCRUBBER NOZZLES SHALL BE MAINTAINED AT pH 8.0 OR HIGHER. THE pH METER SHALL BE USED TO MEASURE THE pH OF THE SOLUTION ON A DAILY BASIS.  
[RULE 1303(a)(1)-BACT]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**Periodic Monitoring:**

7. RECORDS SHALL BE MAINTAINED TO DEMONSTRATE COMPLIANCE WITH CONDITIONS 4 AND 6. THE RECORDS SHALL BE KEPT FOR AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

## FACILITY PERMIT TO OPERATE ABBOTT CARDIOVASCULAR SYSTEMS, INC.

### PERMIT TO CONSTRUCT

**Permit No.**  
**A/N 487407**

**Equipment Description:**

BOILER NO. 1, WATERTUBE TYPE, CLEAVER BROOKS MODEL FLX 700-800, EQUIPPED WITH LOW NO<sub>x</sub> BURNER, 8 MMBTU/HR, NATURAL GAS FIRED.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE BOILER SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE COMBUSTION AIR AND FUEL AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED AT LEAST ONCE EVERY SIX MONTHS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO MAINTAIN ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME FIRING RANGE. NO<sub>x</sub>, O<sub>2</sub>, AND CO SHALL BE MEASURED AND RECORDED ALONG WITH THE TUNE-UP PROCEDURES.  
[Rule 1146]
4. THE NO<sub>x</sub> AND CO CONCENTRATIONS, IN PARTS PER MILLION BY VOLUME (PPMV), ON A DRY BASIS CORRECTED TO 3% OXYGEN, SHALL NOT EXCEED THE FOLLOWING:
 

POLLUTANTS	PPMV
NO <sub>x</sub>	12
CO	100

  
[Rule 1303(a)-BACT]
5. THE OPERATOR SHALL NOT OPERATE ALL OF THE THREE BOILERS AT THE SAME TIME.  
[Rule 1303(b)(2)-OFFSET]
6. THE OPERATOR SHALL CONDUCT A SOURCE TEST TO DETERMINE THE NO<sub>x</sub> AND CO EMISSIONS, IN PPMV AND IN LBS/HOUR, AT THE STACK WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. SUCH SOURCE TEST SHALL BE CONDUCTED DURING THE FIRST 180 DAYS OF OPERATION AND WITHIN 45 DAYS FROM THE APPROVAL OF THE TEST PROTOCOL BY THE DISTRICT. THE SOURCE TEST REPORT SHALL INCLUDE THE CONCENTRATION IN PPM AT 3% OXYGEN AND EMISSION RATE OF NO<sub>x</sub> AND CO IN LBS/DAY, AND SHALL BE SUBMITTED TO THE DISTRICT WITHIN 45 DAYS OF THE DATE OF THE SOURCE TEST.  
[Rule 1303(a)(1)-BACT]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**Periodic Monitoring:**

7. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 5. SUCH RECORDS SHALL BE KEPT FOR AT LEAST THE LAST FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO CONSTRUCT**

**Permit No.  
A/N 487409**

**Equipment Description:**

BOILER NO. 2, WATERTUBE TYPE, CLEAVER BROOKS MODEL FLX 700-800, EQUIPPED WITH LOW NO<sub>x</sub> BURNER, 8 MMBTU/HR, NATURAL GAS FIRED.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE BOILER SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE COMBUSTION AIR AND FUEL AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED AT LEAST ONCE EVERY SIX MONTHS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO MAINTAIN ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME FIRING RANGE. NO<sub>x</sub>, O<sub>2</sub>, AND CO SHALL BE MEASURED AND RECORDED ALONG WITH THE TUNE-UP PROCEDURES.  
[Rule 1146]
4. THE NO<sub>x</sub> AND CO CONCENTRATIONS, IN PARTS PER MILLION BY VOLUME (PPMV), ON A DRY BASIS CORRECTED TO 3% OXYGEN, SHALL NOT EXCEED THE FOLLOWING:
 

POLLUTANTS	PPMV
NO <sub>x</sub>	12
CO	100

  
[Rule 1303(a)-BACT]
5. THE OPERATOR SHALL NOT OPERATE ALL OF THE THREE BOILERS AT THE SAME TIME.  
[Rule 1303(b)(2)-OFFSET]
6. THE OPERATOR SHALL CONDUCT A SOURCE TEST TO DETERMINE THE NO<sub>x</sub> AND CO EMISSIONS, IN PPMV AND IN LBS/HOUR, AT THE STACK WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. SUCH SOURCE TEST SHALL BE CONDUCTED DURING THE FIRST 180 DAYS OF OPERATION AND WITHIN 45 DAYS FROM THE APPROVAL OF THE TEST PROTOCOL BY THE DISTRICT. THE SOURCE TEST REPORT SHALL INCLUDE THE CONCENTRATION IN PPM AT 3% OXYGEN AND EMISSION RATE OF NO<sub>x</sub> AND CO IN LBS/DAY, AND SHALL BE SUBMITTED TO THE DISTRICT WITHIN 45 DAYS OF THE DATE OF THE SOURCE TEST.  
[Rule 1303(a)-BACT]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**Periodic Monitoring:**

7. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 5. SUCH RECORDS SHALL BE KEPT FOR AT LEAST THE LAST FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**PERMIT TO CONSTRUCT**

**Permit No.  
A/N 487410**

**Equipment Description:**

BOILER NO. 3, WATERTUBE TYPE, CLEAVER BROOKS MODEL FLX 700-800, EQUIPPED WITH LOW NO<sub>x</sub> BURNER, 8 MMBTU/HR, NATURAL GAS FIRED.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE BOILER SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE COMBUSTION AIR AND FUEL AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED AT LEAST ONCE EVERY SIX MONTHS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO MAINTAIN ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME FIRING RANGE. NO<sub>x</sub>, O<sub>2</sub>, AND CO SHALL BE MEASURED AND RECORDED ALONG WITH THE TUNE-UP PROCEDURES.  
[Rule 1146]
4. THE NO<sub>x</sub> AND CO CONCENTRATIONS, IN PARTS PER MILLION BY VOLUME (PPMV), ON A DRY BASIS CORRECTED TO 3% OXYGEN, SHALL NOT EXCEED THE FOLLOWING:
 

POLLUTANTS	PPMV
NO <sub>x</sub>	12
CO	100

  
[Rule 1303(a)-BACT]
5. THE OPERATOR SHALL NOT OPERATE ALL OF THE THREE BOILERS AT THE SAME TIME.  
[Rule 1303(b)(2)-OFFSET]
6. THE OPERATOR SHALL CONDUCT A SOURCE TEST TO DETERMINE THE NO<sub>x</sub> AND CO EMISSIONS, IN PPMV AND IN LBS/HOUR, AT THE STACK WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. SUCH SOURCE TEST SHALL BE CONDUCTED DURING THE FIRST 180 DAYS OF OPERATION AND WITHIN 45 DAYS FROM THE APPROVAL OF THE TEST PROTOCOL BY THE DISTRICT. THE SOURCE TEST REPORT SHALL INCLUDE THE CONCENTRATION IN PPM AT 3% OXYGEN AND EMISSION RATE OF NO<sub>x</sub> AND CO IN LBS/DAY, AND SHALL BE SUBMITTED TO THE DISTRICT WITHIN 45 DAYS OF THE DATE OF THE SOURCE TEST.  
[Rule 1303(a)(1)-BACT]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**Periodic Monitoring:**

7. RECORDS SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 5. SUCH RECORDS SHALL BE KEPT FOR AT LEAST THE LAST FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 3004(a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS.

**Periodic Monitoring:**

1. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

FOR ARCHITECTURAL APPLICATIONS WHERE NO THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN SEMI-ANNUAL RECORDS OF ALL COATINGS CONSISTING OF (a) COATING TYPE, (b) VOC CONTENT AS SUPPLIED IN GRAMS PER LITER (g/l) OF MATERIALS FOR LOW-SOLIDS COATINGS, (c) VOC CONTENT AS SUPPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

FOR OTHER ARCHITECTURAL APPLICATIONS WHERE THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN DAILY RECORDS FOR EACH COATING CONSISTING OF (a) COATING TYPE, (b) VOC CONTENT AS APPLIED IN GRAMS PER LITER (g/l) OF MATERIALS USED FOR LOW-SOLIDS COATINGS, (c) VOC CONTENT AS APPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

[RULE 3004 (a) (4) MONITORING AND RECORDKEEPING]

**Emissions And Requirements:**

2. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

[RULE 1113, RULE 1171]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, HAND WIPING OPERATIONS.

**Emissions And Requirements:**

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS  
[RULE 1171]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, BOILER, > 400,000 BTU/HR BUT < 2 MMBTU/HR.

**Emissions And Requirements:**

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: 0.1 gr/scf, RULE 409  
NOx: 30 PPMV, RULE 1146.2  
CO: 400 PPMV, RULE 1146.2  
CO: 2000 PPMV, RULE 407

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, ABRASIVE BLASTING EQUIPMENT, GLOVE-BOX, < 53 FT<sup>3</sup>, WITH DUST FILTER.

**Periodic Monitoring:**

1. THE OPERATOR SHALL PERFORM AN ANNUAL INSPECTION OF THE EQUIPMENT AND FILTER MEDIA FOR LEAKS, BROKEN OR TORN FILTER MEDIA AND IMPROPERLY INSTALLED FILTER MEDIA. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
  - A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE FILTER MEDIA;
  - B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND
  - C. THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.[RULE 3004 (a)(4) MONITORING AND RECORDKEEPING]
  
2. THE OPERATOR SHALL DISCHARGE DUST COLLECTED IN THIS EQUIPMENT ONLY INTO CLOSED CONTAINERS.  
[RULE 3004 (a)(1)]
  
3. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON AN ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE ANNUAL PERIOD. THE ROUTINE ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED, THE OPERATOR SHALL TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT.  
THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:
  - A. STACK OR EMISSION POINT IDENTIFICATION;
  - B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS; AND
  - C. DATE AND TIME VISIBLE EMISSION WAS ABATED.[RULE 3004 (a)(4) MONITORING AND RECORDKEEPING]

**FACILITY PERMIT TO OPERATE  
ABBOTT CARDIOVASCULAR SYSTEMS, INC.**

**Emissions And Requirements:**

4. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS  
PM: RULE 1140, SEE APPENDIX B FOR EMISSION LIMITS