

**FACILITY PERMIT TO OPERATE  
SORENSEN ENGINEERING INC, FRANK SORENSON**

**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  
SORENSEN ENGINEERING INC, FRANK SORENSON**

**PERMITTED EQUIPMENT LIST**

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

<b>Application No.</b>	<b>Permit to Operate No.</b>	<b>Equipment description</b>
367894	F42611	VACUUM DEGREASER AND SOLVENT RECYCLING SYSTEM
367895	F42612	ACTIVATED CARBON ADSORPTION AND DESORBTION SYSTEM
448314	F88391	CHEMICAL DEBURRING LINE
523064		CHEMICAL DEBURRING LINE
523065		GOLD PLATING LINE
523070		FUME SCRUBBER
523072		FUME SCRUBBER
523073		NOX SCRUBBER

**NOTE:** EQUIPMENT LISTED ABOVE THAT HAVE NO CORRESPONDING PERMITS TO OPERATE NUMBER ARE ISSUED PERMITS TO CONSTRUCT. THE ISSUANCE OR DENIAL OF THEIR PERMITS 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  
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**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]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO OPERATE

**Permit No. F42611**  
**A/N 367894**

#### **Equipment Description:**

VACUUM DEGREASER AND SOLVENT RECYCLING SYSTEM, TIYODA YEV-604-142, CONSISTING OF:

1. CLEANING CHAMBER 2'-0" DIA. X 1'-4" H., TRICHLOROETHYLENE, ULTRASONIC.
2. VAPOR GENERATOR, 6 KW.
3. WARM SOLVENT TANK, 45 GALLONS.
4. COLD SOLVENT TANK, 45 GALLONS.
5. DECANT DRYER AND WATER SEPARATOR.
6. DISTILLATION UNIT WITH A 16 KW HEATER, 25 GALLONS CAPACITY.
7. REFRIGERATION UNIT, 2.2 KW.
8. TWO VACUUM PUMPS, 1.1 KW EACH, WITH ASSOCIATED PUMPS AND FILTERS.

#### **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 CLEANING CHAMBER SHALL BE SCAVENGED FOR SOLVENT VAPOR AT LEAST TWO TIMES PRIOR TO OPENING THE CHAMBER. EACH SCAVENGING PHASE SHALL BE CONDUCTED UNDER A VACUUM OF NOT LESS THAN 20 TORR.  
[RULE 1303(a)(1)-BACT]
4. EACH SOLVENT VAPOR SCAVENGING EVENT SHALL BE PASSED THROUGH THE REGENERATIVE CARBON ADSORBER SPECIFIED FOR USE WITH THIS EQUIPMENT.  
[RULE 1303(a)(1)-BACT]
5. ONLY VAPOR DEGREASER GRADE TRICHLOROETHYLENE MAY BE USED IN THIS EQUIPMENT.  
[RULE 1401]

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6. THE TOTAL QUANTITY OF SOLVENT USAGE LOSS FROM THIS DEGREASER, NOT INCLUDING SALVAGED SOLVENT, SHALL NOT EXCEED 125 POUNDS PER MONTH BASED ON A 30-DAY AVERAGE.  
[RULE 1303(b)(2)-OFFSET]
7. MATERIAL SAFETY DATA SHEETS FOR ALL MATERIALS USED AT THIS FACILITY SHALL BE KEPT CURRENT AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303(b)(2)-OFFSET, 1401]
8. IN ADDITION TO THE RECORDKEEPING REQUIREMENTS OF RULE 109, THE OPERATOR SHALL KEEP ADEQUATE CALENDAR MONTHLY VOLUME USAGE AND DISPOSAL RECORDS OF TRICHLOROETHYLENE. ALL RECORDS SHALL BE PREPARED IN A FORMAT ACCEPTABLE TO THE DISTRICT AND RETAINED ON THE PREMISES FOR AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303(b)(2)-OFFSET, 1401]
9. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH THE REQUIREMENTS OF 40 CFR PART 63, SUBPART T.  
[40 CFR63, SUBPART T]
10. AN OPERATING LOG SHALL BE MAINTAINED FOR THIS EQUIPMENT TO VERIFY COMPLIANCE WITH CONDITION NUMBER 6. THIS LOG SHALL INCLUDE, AT A MINIMUM, THE DATE OF EQUIPMENT OPERATION, THE VOLUME OF SOLVENT REPLACED IN THE DEGREASER, AND THE VOLUME OF SOLVENT RECLAIMED.  
[RULE 1303(b)(2)-OFFSET, 40 CFR63 SUBPART T]
11. THE OWNER/ OPERATOR SHALL DETERMINE THE AMOUNT OF SPENT SOLVENT THAT IS RECOVERED BY USING EPA METHOD 25D – DETERMINATION OF THE VOLATILE ORGANIC CONCENTRATION OF WASTE SAMPLES (56 FR 33544) OR BY ENGINEERING CALCULATIONS USED IN THE COMPLIANCE REPORT.  
[RULE 1303(b)(2)-OFFSET, 40 CFR63 SUBPART T]
12. THE OPERATOR SHALL SUBMIT ALL OF THE FOLLOWING REPORTS TO THE DISTRICT BY THEIR RESPECTIVE DUE DATES AS INDICATED. THE OPERATOR SHALL USE THE APPROPRIATE FORMS TO SUBMIT THE REQUIRED INFORMATION.
  - A. ANNUAL USAGE OF SOLVENT: FEBRUARY 1 OF THE FOLLOWING YEAR OF USE, PARTS I AND II; FORMS F-12 AND F-13.
  - B. EXCEEDANCES REPORT: SEMI-ANNUALLY WITHOUT MAJOR EXCEEDANCE (CORRECTED WITHIN 15 DAYS) OR QUARTERLY REPORTS FOR A MINIMUM OF ONE YEAR WITH MAJOR EXCEEDANCE, PARTS I AND II; FORMS F-14 AND F-15.  
[40 CFR63, SUBPART T]

### **Emissions And Requirements:**

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

**FACILITY PERMIT TO OPERATE  
SORENSEN ENGINEERING INC, FRANK SORENSON**

VOC: RULE 109

VOC: RULE 1122

HAP(s): 40CFR63 SUBPART T, SEE SECTION J FOR REQUIREMENTS

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO OPERATE

**Permit No. F42612**  
**A/N 367895**

**Equipment Description:**

ACTIVATED CARBON ADSORPTION AND DESORPTION SYSTEM, TIYODA YAC-1200, CONSISTING OF:

1. TWO ADSORPTION/ DESORPTION VESSELS, 1'-8" DIA. X 2'-7" H., EACH CONTAINING 40 LBS. OF PELLETIZED CARBON.
2. COOLING WATER TANK, 26.4 GALLONS WITH A 150 W. PUMP.
3. STEAM GENERATOR, 5 KW.
4. VACUUM PUMP, 300 W.

SERVING A VACUUM DEGREASER AND SOLVENT RECYCLING SYSTEM.

**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 CARBON ADSORBER REGENERATION FREQUENCY SHALL BE CONDUCTED AUTOMATICALLY AND SHALL BE CALIBRATED FOR TRICHLOROETHYLENE BY THE MANUFACTURER OR ITS REPRESENTATIVE ONLY.  
[RULE 1303(a)(1)-BACT, 1303(b)(2)-OFFSET]
4. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH THE REQUIREMENTS OF 40 CFR PART 63, SUBPART T.  
[40 CFR63 SUBPART T]
5. THE EXHAUST CONCENTRATION OF ANY HAZARDOUS AIR POLLUTANT (HAP) SOLVENT FROM THE CARBON ADSORBER SHALL NOT EXCEED 100 PARTS PER MILLION BY VOLUME (PPMV). AN EXCEEDANCE HAS OCCURRED IF THIS REQUIREMENT IS NOT MET AND NOT CORRECTED WITHIN 15 DAYS AFTER DETECTION.  
[40 CFR63 SUBPART T]

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6. THE CARBON ADSORBER SHALL NOT BE BYPASSED DURING DESORPTION. AN EXCEEDANCE HAS OCCURRED IF THIS REQUIREMENT IS NOT MET.  
[40 CFR63 SUBPART T]
7. THE EXHAUST CONCENTRATION OF SOLVENT FROM THE CARBON ADSORBER SHALL BE MEASURED WEEKLY USING A CALORIMETRIC DETECTOR TUBE. THE SOLVENT CONCENTRATION SHALL BE MEASURED AT SAMPLING PORTS THAT ARE LOCATED AT LEAST EIGHT (8) STACK OR DUCT DIAMETERS DOWNSTREAM FROM ANY FLOW DISTURBANCES AND AT LEAST TWO (2) STACK OR DUCT DIAMETERS UPSTREAM FROM ANY FLOW DISTURBANCES. AN ALTERNATIVE MEASUREMENT MAY BE USED UPON APPROVAL BY THE EXECUTIVE OFFICER.  
[RULE 1303(a)(1)-BACT, 40CFR63 SUBPART T]
8. THE CALORIMETRIC TUBE USED TO TAKE THE MEASUREMENTS SHOULD BE DESIGNED TO MEASURE A CONCENTRATION OF 100 PPMV OF SOLVENT IN AIR TO AN ACCURACY OF PLUS OR MINUS 25 PPMV. IN ADDITION, THE CALORIMETRIC TUBE SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.  
[RULE 1303(a)(1)-BACT, 40 CFR63 SUBPART T]
9. THE OWNER/ OPERATOR SHALL MAINTAIN RECORDS OF DATES AND RESULTS OF WEEKLY TESTS CONDUCTED ON THE EXHAUST FROM THE CARBON ADSORPTION SYSTEM. THE RECORDS SHALL BE MAINTAINED ON FILE EITHER IN WRITTEN OR ELECTRONIC FORM FOR FIVE YEARS. ALL RECORDS SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303(a)(1)-BACT, 40 CFR63 SUBPART T]
10. ANY EXCEEDANCES SHALL BE ADJUSTED OR REPAIRED TO RE-ESTABLISH REQUIRED LEVELS.  
[RULE 1303(a)(1)-BACT, 40 CFR63 SUBPART T]

### **Emissions And Requirements:**

11. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:  
  
VOC: RULE 1122  
HAP(s): 40CFR63 SUBPART T, SEE SECTION J FOR REQUIREMENTS

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO CONSTRUCT/OPERATE

**Permit No. F88391  
A/N 448314**

#### **Equipment Description:**

CHEMICAL DEBURRING LINE CONSISTING OF:

1. TANK NO. 1A, NITRIC ACID, PHOSPHORIC ACID, ACETIC ACID, WITH 1.57 SQUARE FEET OF SURFACE AREA, HEATED.
2. TANK NO. 1B, PHOSPHORIC ACID, NITRIC ACID AND ACETIC ACID, WITH 1.67 SQUARE FEET OF SURFACE AREA, HEATED.
3. TANK NO. 1C, SULFURIC ACID, WITH 0.98 SQUARE FEET OF SURFACE AREA, HEATED.
4. TANK NO. 2A, PHOSPHORIC ACID, NITRIC ACID AND ACETIC ACID, WITH 1.64 SQUARE FEET OF SURFACE AREA, HEATED.
5. TANK NO. 2B, PHOSPHORIC ACID, NITRIC ACID AND ACETIC ACID, WITH 1.67 SQUARE FEET OF SURFACE AREA, HEATED.
6. TANK NO. 2C, PHOSPHORIC ACID, NITRIC ACID AND ACETIC ACID, WITH 1.67 SQUARE FEET OF SURFACE AREA, HEATED.
7. TANK NO. 5, AQUA POLISH/BRIGHT DIP, AQUA POLISH AND HYDROGEN PEROXIDE, WITH 1.50 SQUARE FEET OF SURFACE AREA, HEATED.
8. TANK NO. 6, DEOXIDIZER, SULFURIC ACID, WITH 0.72 SQUARE FEET OF SURFACE AREA.
9. TANK NO. 7, PASSIVATION, NITRIC ACID, WITH 1.50 SQUARE FEET OF SURFACE AREA, HEATED.
10. TANK NO. 8, SOAP SOLUTION, PHOSPHORIC ACID AND ETCHTEC COMPOUND, WITH 2.13 SQUARE FEET OF SURFACE AREA, HEATED.
11. TANK NO. 11, COBRA TEC, WITH 0.67 SQUARE FEET OF SURFACE AREA, HEATED.

#### **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]

## FACILITY PERMIT TO OPERATE SORENSON ENGINEERING INC, FRANK SORENSON

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
 [RULE 204]
  
3. ALL TANKS SHALL BE CLEARLY IDENTIFIED AND LABELED WITH THE APPROPRIATE TANK NUMBER AS DESIGNATED IN THE EQUIPMENT DESCRIPTION. THE IDENTIFICATION AND/OR LABELING OF EACH TANK SHALL BE DIRECTLY AFFIXED TO EACH TANK AND SHALL BE CLEARLY VISIBLE AND LEGIBLE.  
 [RULE 1303(b)(2)-OFFSET, 1401]
  
4. TANKS IN THIS LINE SHALL ONLY CONTAIN THE CHEMICALS AND COMPOUNDS SPECIFICALLY IDENTIFIED IN THE EQUIPMENT DESCRIPTION OF THIS PERMIT.  
 [RULE 1303(b)(2)-OFFSET, 1401]
  
5. AIR SPARGING, RECTIFICATION, AND/OR HEATING SHALL NOT BE CONDUCTED EXCEPT IN TANKS WHERE THESE OPERATIONS ARE SPECIFICALLY IDENTIFIED IN THE EQUIPMENT DESCRIPTION. REMOVAL OF SUCH DEVICES FROM THESE TANKS DOES NOT CONSTITUTE A MODIFICATION FOR PERMITTING PURPOSES.  
 [RULE 1303(b)(2)-OFFSET, 1401]
  
6. THE OPEN PROCESS TANKS IN THIS LINE SHALL BE OPERATED AT OR BELOW THE PARAMETER LIMITS INDICATED IN THE FOLLOWING TABLE:

TANK NO.	CHEMICAL	MAXIMUM CHEMICAL CONCENTRATION (PERCENT BY WEIGHT)	MAXIMUM ANNUAL AMPERE-HOURS (PER CALENDAR YEAR)	MAXIMUM OPERATING TEMPERATURE (DEGREES F)	MAXIMUM SURFACE AREA (SQUARE FEET PER TANK)
1A	NITRIC ACID	10.0	N/A	165	N/A
1A	PHOSPHORIC ACID	70.0	N/A	165	N/A
1B	NITRIC ACID	10.0	N/A	165	N/A
1B	PHOSPHORIC ACID	70.0	N/A	165	N/A
1C	SULFURIC ACID	70.0	N/A	165	N/A
2A	NITRIC ACID	10.0	N/A	165	N/A
2A	PHOSPHORIC ACID	70.0	N/A	165	N/A
2B	NITRIC ACID	10.0	N/A	165	N/A
2B	PHOSPHORIC ACID	70.0	N/A	165	N/A
2C	NITRIC ACID	10.0	N/A	165	N/A
2C	PHOSPHORIC ACID	70.0	N/A	165	N/A
6	SULFURIC ACID	7.0	N/A	AMBIENT	N/A
7	NITRIC ACID	60.0	N/A	130	N/A

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FOR THE PURPOSE OF THIS CONDITION, CONCENTRATION MEANS ANHYDROUS CONCENTRATION (NOT COUNTING WATER OR WATER OF HYDRATION).  
[RULE 1303(b)(2)-OFFSET, 1401]

7. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY OF THE COMPOUNDS OR ELEMENTS IDENTIFIED AS CARCINOGENIC AIR CONTAMINANTS IN RULE 1401 AS AMENDED MARCH 4, 2005 EXCEPT AS DESCRIBED IN THE EQUIPMENT DESCRIPTION OF THIS PERMIT.  
[RULE 1401]
  
8. A LOG CONCERNING THE OPERATION OF THIS EQUIPMENT SHALL BE KEPT ON FILE FOR A MINIMUM OF FIVE YEARS. THE PAST TWO YEARS' RECORDS SHALL BE KEPT ON-SITE AND SHALL BE MADE AVAILABLE UPON REQUEST OF AQMD PERSONNEL. THIS LOG SHALL CONTAIN THE FOLLOWING INFORMATION:
  - A. AT LEAST ONCE PER MONTH, THE CONCENTRATION IN PERCENT BY WEIGHT OF THE COMPOUNDS LISTED IN CONDITION NO. 6.
  
  - B. THE QUANTITY AND COMPOSITION OF EACH MATERIAL ADDED TO EACH TANK DURING REPLENISHMENT
  
  - C. MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL RAW MATERIALS CHARGED TO EACH PROCESS TANK AT THIS FACILITY  
[RULE 1303(b)(2)-OFFSET, 1401]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO CONSTRUCT

A/N 523064  
Granted as of 12/1/2011

#### Equipment Description:

CHEMICAL DEBURRING LINE CONSISTING OF:

1. TANK, NO. 13, ANTI-TARNISH, BENZOTRIAZOLE, ISOPROPANOL, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
2. TANK, NO. 14, PASSIVATION, SODIUM HYDROXIDE, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
3. TANK, NO. 21, PASSIVATION, SODIUM HYDROXIDE, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
4. TANK, NO. 23, POLISH, SEC-BUTYL ALCOHOL, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
5. TANK, NO. 24, PASSIVATION, NITRIC ACID, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
6. TANK, NO. 29, DEOXIDIZER, SULFURIC ACID, 1'-6" L. X 2'-0" W. X 1'-10" H., UNHEATED, VENTED.
7. TANK, NO. 30, BRIGHT DIP, SODIUM BISULFATE, HYDROGEN PEROXIDE, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
8. TANK, NO. 31, DESCALE, SULFURIC ACID, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
9. TANK, NO. 38, PNA ETCH, PHOSPHORIC ACID, NITRIC ACID, ACETIC ACID, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
10. TANK, NO. 40, PNA ETCH, PHOSPHORIC ACID, NITRIC ACID, ACETIC ACID, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
11. TANK, NO. 41, PNA ETCH, PHOSPHORIC ACID, NITRIC ACID, ACETIC ACID, 1'-6" L. X 2'-0" W. X 1'-10" H., HEATED, VENTED.
12. ASSOCIATED RINSE TANKS.

#### 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]

## FACILITY PERMIT TO OPERATE SORENSON ENGINEERING INC, FRANK SORENSON

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
 [RULE 204]
  
3. ALL TANKS SHALL BE CLEARLY IDENTIFIED AND LABELED WITH THE APPROPRIATE TANK NUMBER AS DESIGNATED IN THE EQUIPMENT DESCRIPTION. THE IDENTIFICATION AND/OR LABELING OF EACH TANK SHALL BE DIRECTLY AFFIXED TO EACH TANK AND SHALL BE CLEARLY VISIBLE AND LEGIBLE.  
 [RULE 1303(b)(2)-OFFSET, RULE 1401]
  
4. ALL TANKS IN THIS LINE SHALL ONLY CONTAIN THE CHEMICALS AND COMPOUNDS SPECIFICALLY IDENTIFIED IN THE EQUIPMENT DESCRIPTION OF THIS PERMIT. NO CHEMICAL COMPOUNDS LISTED IN RULE 1401, TABLE 1 "TOXIC AIR CONTAMINANTS", AS AMENDED SEPTEMBER 10, 2010 OTHER THAN THOSE INCLUDED IN THE EQUIPMENT DESCRIPTION ON THIS PERMIT SHALL BE USED IN THIS EQUIPMENT.  
 [RULE 1303(b)(2)-OFFSET, RULE 1401]
  
5. AIR SPARGING, RECTIFICATION, AND/OR HEATING SHALL NOT BE CONDUCTED EXCEPT IN TANKS WHERE THESE OPERATIONS ARE SPECIFICALLY IDENTIFIED IN THE EQUIPMENT DESCRIPTION. REMOVAL OF SUCH DEVICES FROM THESE TANKS DOES NOT CONSTITUTE A MODIFICATION FOR PERMITTING PURPOSES.  
 [RULE 1303(b)(2)-OFFSET, RULE 1401]
  
6. THE OPEN PROCESS TANKS IN THIS LINE SHALL BE OPERATED AT OR BELOW THE PARAMETER LIMITS IN THE FOLLOWING TABLE:

TANK NO.	CHEMICAL	MAXIMUM CHEMICAL CONCENTRATION PERCENT BY WEIGHT (WT%)	MAXIMUM OPERATING TEMP. IN DEGREES FAHRENHEIT
13	ISOPROPANOL	3.14	130
14	SODIUM HYDROXIDE	6.51	150
21	SODIUM HYDROXIDE	6.51	150
23	SEC-BUTYL ALCOHOL	5.0	120
24	NITRIC ACID	55.03	150
29	SULFURIC ACID	11.51	AMBIENT
30	SODIUM BISULFATE	0.67	110
31	SULFURIC ACID	73.83	150
38, 40, 41	PHOSPHORIC ACID	51.7	160
	NITRIC ACID	4.81	
	ACETIC ACID	17.20	

[RULE 1303(b)(2)-OFFSET, RULE 1401]

7. THE TOTAL QUANTITY OF NITRIC ACID USED IN THIS OPERATION SHALL NOT EXCEED 62.5 GALLONS IN ANY CALENDAR MONTH. FOR THE PURPOSE OF THIS CONDITION, THE QUANTITY

## **FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON**

OF NITRIC ACID USED SHALL BE DETERMINED FROM THE TOTAL VOLUME, WEIGHT PERCENT OF NITRIC ACID AND THE NITRIC ACID CONCENTRATION IN THE HAZARDOUS WASTE.  
[RULE 1303(b)(2)-OFFSET, RULE 1401]

8. A LOG CONCERNING THE OPERATION OF THIS EQUIPMENT SHALL BE KEPT ON FILE FOR A MINIMUM OF FIVE YEARS. THE PAST TWO YEARS' RECORDS SHALL BE KEPT ON-SITE AND SHALL BE MADE AVAILABLE UPON REQUEST OF AQMD PERSONNEL. THIS LOG SHALL CONTAIN THE FOLLOWING INFORMATION:
    - A. AT LEAST ONCE PER MONTH, THE CONCENTRATION IN PERCENT BY WEIGHT OF THE COMPOUNDS LISTED IN CONDITION NO.6.
    - B. THE QUANTITY AND COMPOSITION OF EACH MATERIAL ADDED TO EACH TANK DURING REPLENISHMENT.
    - C. THE QUANTITY OF NITRIC ACID SENT TO HAZARDOUS WASTE.
    - D. MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL RAW MATERIALS CHARGED TO EACH PROCESS TANK AT THIS FACILITY.
- [RULE 1303(b)(2)-OFFSET, RULE 1401]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO CONSTRUCT

A/N 523065  
Granted as of 12/1/2011

#### Equipment Description:

GOLD PLATING LINE CONSISTING OF:

1. TANK NO. 1, CLEANING, SODIUM HYDROXIDE, SILICATE COMPOUND, SODIUM SALT, PHOSPHATE SALT, PETROLEUM NAPHTHA, 1'-3" DIA. X 1'-7" H., UNHEATED, VENTED.
2. TANK NO. 1A, CLEANING, SODIUM HYDROXIDE, SILICATE COMPOUND, SODIUM SALT, PHOSPHATE SALT, PETROLEUM NAPHTHA, 3'-7" L. X 1'-6" W. X 1'-10"H., HEATED.
3. TANK NO. 3, ELECTROCLEANER, SODIUM HYDROXIDE, SILICATE COMPOUND, SODIUM SALT, PHOSPHATE SALT, PETROLEUM NAPHTHA, 1'-3" DIA. x 1'-7" H., UNHEATED, WITH A 200 AMPERE RECTIFIER, VENTED.
4. TANK NO. 3A, CLEANING, SODIUM HYDROXIDE, SILICATE COMPOUND, SODIUM SALT, PHOSPHATE SALT, PETROLEUM NAPHTHA, 3'-7" L. X 1'-6" W. X 1'-10"H., HEATED.
5. TANK NO. 5, UPPER TANK FOR ACTIVATOR, SULFURIC ACID, ORGANIC/INORGANIC SALTS, 1'-3" DIA. X 1'-7"H., UNHEATED, VENTED.
6. TANK NO. 5A, ACID ACTIVATOR, SULFURIC ACID, ORGANIC/INORGANIC ACID, 3'-7" L. X 0'-11" W. X 1'-10"H., UNHEATED.
7. TANK NO. 6, UPPER TANK FOR COPPER, SULFURIC ACID, COPPER SULFATE PENTAHYDRATE, HYDROCHLORIC ACID, METHANOL, POLYGLYCOL, 1'-8" L. X 2'-0" W. X 1'-7"H., UNHEATED, WITH A 150 AMPERE RECTIFIER, VENTED.
8. TANK NO. 6A, COPPER PLATE, SULFURIC ACID, COPPER SULFATE PENTAHYDRATE, HYDROCHLORIC ACID, METHANOL, POLYGLYCOL, 3'-7" L. X 1'-8" W. X 1'-10"H., HEATED.
9. TANK NO. 8, UPPER TANK FOR ACTIVATOR, SULFURIC ACID, ORGANIC/INORGANIC SALTS, 1'-3" DIA. X 1'-7" H., UNHEATED, VENTED.
10. TANK NO. 8A, ACID ACTIVATOR, SULFURIC ACID, ORGANIC/INORGANIC ACID, 3'-7" L. X 0'-11" W. X 1'-10"H., UNHEATED..
11. TANK NO. 9, 10, 11, 12 UPPER TANK FOR NICKEL I-II-III-IV, NICKEL SULFAMATE, NICKEL BROMIDE, BORIC ACID, 1'-8" L. X 2'-0" W. X 1'-7"H., WITH A 150 AMPERE RECTIFIER, UNHEATED, VENTED.
12. TANK NO. 9A, 10A, 11A, 12A NICKEL I-II-III-IV, NICKEL SULFAMATE, NICKEL BROMIDE, BORIC ACID, 3'-7" L. X 4'-10" W. X 1'-10"H., HEATED.

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13. TANK NO. 14, UPPER TANK FOR ACTIVATOR, SULFURIC ACID, ORGANIC/INORGANIC SALTS, 1'-3" DIA. X 1'-7" H., UNHEATED, VENTED.
14. TANK NO. 14A, ACTIVATOR, SULFURIC ACID, ORGANIC/INORGANIC ACID, 3'-7" L. X 0'-11" . X 1'-10"H., UNHEATED.
15. TANK NO. 15, UPPER TANK FOR GOLD STRIKE, POTASSIUM GOLD CYANIDE, ALIPHATIC SALT, ORGANIC ACID, POTASSIUM HYDROXIDE, ARSENIC TRIOXIDE, 1'-8" L. X 2'-0" W. X 1'-7"H., WITH A 50 AMPERE RECTIFIER, UNHEATED, VENTED.
16. TANK NO. 15A, GOLD STRIKE, POTASSIUM GOLD CYANIDE, ALIPHATIC SALT, ORGANIC ACID, POTASSIUM HYDROXIDE, ARSENIC TRIOXIDE, 3'-7" L. X 1'-8" W. X 1'-10"H., HEATED.
17. TANK NO. 16, UPPER TANK FOR GOLD PLATE I, ORGANIC ACID, OXALIC ACID, NICOTINIC ACID, POTASSIUM HYDROXIDE, 1'-8" L. X 2'-0" W. X 1'-7"H., WITH A 50 AMPERE RECTIFIER, UNHEATED, VENTED.
18. TANK NO. 17, UPPER TANK FOR GOLD PLATE II, ORGANIC ACID, OXALIC ACID, NICOTINIC ACID, POTASSIUM HYDROXIDE, 1'-8" L. X 2'-0" W. X 1'-7"H., WITH A 50 AMPERE RECTIFIER, UNHEATED, VENTED.
19. TANK NO. 16A, 17A, GOLD PALTE I-II, ORGANIC ACID, OXALIC ACID, NICOTINIC ACID, POTASSIUM HYDROXIDE, 3'-7" L. X 2'-3" W. X 1'-10"H., HEATED.
20. TANK NO. 18, UPPER TANK FOR GOLD PLATE III, ORGANIC ACID, OXALIC ACID, NICOTINIC ACID, POTASSIUM HYDROXIDE, 1'-8" L. X 2'-0" W. X 1'-7"H., WITH A 50 AMPERE RECTIFIER, UNHEATED, VENTED.
21. TANK NO. 19, UPPER TANK FOR GOLD PLATE IV, ORGANIC ACID, OXALIC ACID, NICOTINIC ACID, POTASSIUM HYDROXIDE, 1'-8" L. X 2'-0" W. X 1'-7"H., WITH A 50 AMPERE RECTIFIER, UNHEATED, VENTED.
22. TANK NO. 18A, 19A, GOLD PALTE III-IV, ORGANIC ACID, OXALIC ACID, NICOTINIC ACID, POTASSIUM HYDROXIDE, 3'-7" L. X 2'-3" W. X 1'-10"H., HEATED.
23. ASSOCIATED RINSE TANKS.

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

**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 CONDITIONS AT ALL TIMES.  
[RULE 204]
3. ALL TANKS SHALL BE CLEARLY IDENTIFIED AND LABELED WITH THE APPROPRIATE TANK NUMBER AS DESIGNATED IN THE EQUIPMENT DESCRIPTION. THE IDENTIFICATION AND/OR LABELING OF EACH TANK SHALL BE DIRECTLY AFFIXED TO EACH TANK AND BE EASILY READABLE.  
[RULE 1303(b)(2)-OFFSET, RULE 1401]
4. ALL TANKS IN THIS LINE SHALL ONLY CONTAIN THE CHEMICALS AND COMPOUNDS SPECIFICALLY IDENTIFIED IN THE EQUIPMENT DESCRIPTION OF THIS PERMIT. NO CHEMICAL COMPOUNDS LISTED IN RULE 1401, TABLE 1 "TOXIC AIR CONTAMINANTS", AS AMENDED SEPTEMBER 10, 2010 OTHER THAN THOSE INCLUDED IN THE EQUIPMENT DESCRIPTION ON THIS PERMIT SHALL BE USED IN THIS EQUIPMENT.  
[RULE 1303(b)(2)-OFFSET, RULE 1401]
5. AIR SPARGING, RECTIFICATION, AND/OR HEATING SHALL NOT BE CONDUCTED EXCEPT IN TANKS WHERE THESE OPERATIONS ARE SPECIFICALLY IDENTIFIED IN THE EQUIPMENT DESCRIPTION. REMOVAL OF SUCH EQUIPMENT SHALL NOT CONSTITUTE A MODIFICATION FOR PERMITTING PURPOSES.  
[RULE 1303(b)(2)-OFFSET, RULE 1401]
6. AN IDENTIFICATION TAG OR LABEL SHALL BE AFFIXED TO ALL RECTIFIERS IN A PERMANENT AND CONSPICUOUS POSITION. THE IDENTIFICATION MARKER SHALL BE MAINTAINED IN LEGIBLE CONDITION AND CONTAIN THE FOLLOWING INFORMATION:
  - A. RECTIFIER IDENTIFICATION NUMBER.
  - B. MAXIMUM RECTIFIER AMPERAGE.
  - C. IDENTIFICATION NUMBER(S) OF TANK(S) OPERATED WITH THE RECTIFIER.  
[RULE 1303(b)(2)-OFFSET, RULE 1401]

## FACILITY PERMIT TO OPERATE SORENSON ENGINEERING INC, FRANK SORENSON

7. THE OPEN PROCESS TANKS IN THIS LINE SHALL BE OPERATED AT OR BELOW THE PARAMETER LIMITS IN THE FOLLOWING TABLE:

TANK NO.	CHEMICAL	MAXIMUM CHEMICAL CONCENTRATION PERCENT BY WEIGHT (WT%)	MAXIMUM OPERATING TEMP. IN DEGREES FAHRENHEIT
1,3,	SODIUM HYDROXIDE	5.78	AMBIENT
1A,3A	SODIUM HYDROXIDE	5.78	170
5, 5A, 8, 8A,14,14A	SULFURIC ACID	5.24	AMBIENT
6	SULFURIC ACID	23.76	AMBIENT
6	COPPER COMPOUNDS	3.43	AMBIENT
6	HYDROCHLORIC ACID	0.01	AMBIENT
6	METHANOL	0.08	AMBIENT
6A	SULFURIC ACID	23.76	84
6A	COPPER COMPOUNDS	3.43	84
6A	HYDROCHLORIC ACID	0.01	84
6A	METHANOL	0.08	84
9,10,11,12	NICKEL COMPOUNDS	19.56	AMBIENT
9A,10A,11A,12 A	NICKEL COMPOUNDS	19.56	140
15, 15A	ARSENIC COMPOUNDS	5.0	AMBIENT

[RULE 1303(b)(2)-OFFSET, RULE 1401]

10. A LOG CONCERNING THE OPERATION OF THIS EQUIPMENT SHALL BE KEPT ON FILE FOR A MINIMUM OF FIVE YEARS. THE PAST TWO YEARS' RECORDS SHALL BE KEPT ON SITE AND SHALL BE MADE AVAILABLE UPON REQUEST OF DISTRICT PERSONNEL. THIS LOG SHALL CONTAIN THE FOLLOWING INFORMATION:
- A. THE RECORDS REQUIRED BY THE CONDITIONS IN THIS PERMIT.
  - B. THE CONCENTRATION IN PERCENT BY WEIGHT OF TOTAL NICKEL IN TANK NOS. 9, 9A, 10, 10A, 11, 11A, 12 AND 12A DETERMINED EACH MONTH BY QUANTITATIVE CHEMICAL ANALYSIS.

**FACILITY PERMIT TO OPERATE  
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- D. THE QUANTITY AND COMPOSITION OF EACH MATERIAL ADDED TO EACH TANK DURING REPLENISHMENT.
- E. MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS CHARGED TO EACH PROCESS TANK AT THIS FACILITY.  
[RULE 1303(b)(2)-OFFSET, RULE 1401]
- 12. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE AQMD RULES, INCLUDING BUT NOT LIMITED TO RULE 1426.  
[RULE 1426]
- 14. THE OPERATOR SHALL REPORT ALL BREAKDOWNS AS REQUIRED BY AQMD RULE 430.  
[RULE 430]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO CONSTRUCT

A/N 523070  
Granted as of 12/1/2011

#### Equipment Description:

AIR POLLUTION CONTROL SYSTEM NO. 1 CONSISTING OF:

1. FUME SCRUBBER, VERTICAL PACKED TYPE, SCRUBAIR SYSTEMS, MODEL SSQV, 2'-6" DIA. X 10'-0" H, WITH 5'-0" DEEP, LANTEC, 3.5" GLOBE PACK POLYPROPYLENE PACKING, AND A 1.5 H.P. WATER RECIRCULATION PUMP.
2. EXHAUST SYSTEM WITH KIMRE COMPOSIT 5 MICRON MIST ELIMINATOR AND A 7.5 H.P. BLOWER VENTING TANKS 1, 3, 5, 6, 8, 9, 10, 11, 12, AND 14 FROM THE GOLD PLATING LINE.

#### 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 EQUIPMENT SHALL BE IN OPERATION WHENEVER THE EQUIPMENT THAT IT VENTS IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
4. THE OPERATOR SHALL INSTALL AND MAINTAIN A FLOW METER FOR THE SCRUBBER TO ACCURATELY INDICATE, IN GALLONS PER MINUTE, THE FLOW OF SCRUBBING SOLUTION TO THE NOZZLES.  
[RULE 1303(a)(1)-BACT]
5. NOT LESS THAN 30 GPM OF RECIRCULATING WATER SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
6. A PH INDICATOR SHALL BE INSTALLED TO MONITOR THE PH OF THE SCRUBBER SOLUTION. THE CIRCULATING WATER TO THE SCRUBBER SHALL BE MAINTAINED AT PH 8 OR HIGHER.  
[RULE 1303(a)(1)-BACT]
7. THE OWNER/OPERATOR SHALL COMPLY WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS FOR THE PACKED BED SCRUBBER LISTED BELOW:

**FACILITY PERMIT TO OPERATE  
SORENSEN ENGINEERING INC, FRANK SORENSON**

- A. QUARTERLY VISUAL INSPECTION OF THE DEVICE TO ENSURE THAT THE SPRAY NOZZLES ARE FUNCTIONING PROPERLY, THERE IS PROPER DRAINAGE, NO UNUSUAL BUILDUP ON THE PACKED BED, AND NO EVIDENCE OF CHEMICAL ATTACK THAT AFFECTS THE STRUCTURAL INTEGRITY OF THE DEVICE
  - B. QUARTERLY VISUAL INSPECTION OF THE DUCTWORK FROM THE TANK(S) TO THE CONTROL DEVICE TO ENSURE THERE ARE NO LEAKS.
  - C. PERFORM WASHDOWN OF THE COMPOSITE MESH PAD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - D. ADD FRESH MAKEUP WATER TO THE PACKED BED WHENEVER MAKEUP IS NEEDED.  
[RULE 1303(a)(1)-BACT]
8. THE OWNER/OPERATOR SHALL MAINTAIN INSPECTION AND MAINTENANCE RECORDS FOR THE AIR POLLUTION CONTROL SYSTEM AND MONITORING EQUIPMENT TO DOCUMENT COMPLIANCE WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS OF THIS PERMIT. THE RECORD SHALL IDENTIFY:
- A. THE DEVICE INSPECTED.
  - B. THE DATE AND TIME OF INSPECTION.
  - C. THE WORKING CONDITION OF THE DEVICE DURING THE INSPECTION.
  - D. ANY MAINTENANCE ACTIVITIES PERFORMED ON THE AIR POLLUTION CONTROL SYSTEM OR PARAMETER MONITORING SYSTEM.
  - E. ANY ACTIONS TAKEN TO CORRECT DEFICIENCIES FOUND DURING THE INSPECTION.  
[RULE 1303(a)(1)-BACT]
9. ALL RECORDS REQUIRED TO DEMONSTRATE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT SHALL BE MAINTAINED FOR A MINIMUM OF TWO YEARS AND SHALL BE MADE AVAILABLE TO THE AQMD PERSONNEL UPON REQUEST.  
[RULE 1303(a)(1)-BACT]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO CONSTRUCT

A/N 523072  
Granted as of 12/1/2011

#### Equipment Description:

AIR POLLUTION CONTROL SYSTEM NO. 2 CONSISTING OF:

1. FUME SCRUBBER, VERTICAL PACKED TYPE, SCRUBAIR SYSTEMS, MODEL SSQV, 2'-0" DIA. X 9'-0" H, WITH 3'-0" DEEP, LANTEC, 3.5" GLOBE PACK POLYPROPYLENE PACKING, AND A 1.0 H.P. WATER RECIRCULATION PUMP.
2. EXHAUST SYSTEM WITH KIMRE COMPOSIT 5 MICRON MIST ELIMINATOR AND A 5.0 H.P. BLOWER VENTING TANKS 15, 16, 17, 18, AND 19 FROM THE GOLD PLATING LINE.

#### 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 EQUIPMENT SHALL BE IN OPERATION WHENEVER THE EQUIPMENT THAT IT VENTS IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
4. THE OPERATOR SHALL INSTALL AND MAINTAIN A FLOW METER FOR THE SCRUBBER TO ACCURATELY INDICATE, IN GALLONS PER MINUTE, THE FLOW OF SCRUBBING SOLUTION TO THE NOZZLES.  
[RULE 1303(a)(1)-BACT]
5. NOT LESS THAN 20 GPM OF RECIRCULATING WATER SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
6. A PH INDICATOR SHALL BE INSTALLED TO MONITOR THE PH OF THE SCRUBBER SOLUTION. THE CIRCULATING WATER TO THE SCRUBBER SHALL BE MAINTAINED AT PH 8 OR HIGHER.  
[RULE 1303(a)(1)-BACT]
7. THE OWNER/OPERATOR SHALL COMPLY WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS FOR THE PACKED BED SCRUBBER LISTED BELOW:

**FACILITY PERMIT TO OPERATE  
SORENSEN ENGINEERING INC, FRANK SORENSON**

- A. QUARTERLY VISUAL INSPECTION OF THE DEVICE TO ENSURE THAT THE SPRAY NOZZLES ARE FUNCTIONING PROPERLY, THERE IS PROPER DRAINAGE, NO UNUSUAL BUILDUP ON THE PACKED BED, AND NO EVIDENCE OF CHEMICAL ATTACK THAT AFFECTS THE STRUCTURAL INTEGRITY OF THE DEVICE
  - B. QUARTERLY VISUAL INSPECTION OF THE DUCTWORK FROM THE TANK(S) TO THE CONTROL DEVICE TO ENSURE THERE ARE NO LEAKS.
  - C. PERFORM WASHDOWN OF THE COMPOSITE MESH PAD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - D. ADD FRESH MAKEUP WATER TO THE PACKED BED WHENEVER MAKEUP IS NEEDED.  
[RULE 1303(a)(1)-BACT]
8. THE OWNER/OPERATOR SHALL MAINTAIN INSPECTION AND MAINTENANCE RECORDS FOR THE AIR POLLUTION CONTROL SYSTEM AND MONITORING EQUIPMENT TO DOCUMENT COMPLIANCE WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS OF THIS PERMIT. THE RECORD SHALL IDENTIFY:
- A. THE DEVICE INSPECTED.
  - B. THE DATE AND TIME OF INSPECTION.
  - C. THE WORKING CONDITION OF THE DEVICE DURING THE INSPECTION.
  - D. ANY MAINTENANCE ACTIVITIES PERFORMED ON THE AIR POLLUTION CONTROL SYSTEM OR PARAMETER MONITORING SYSTEM.
  - E. ANY ACTIONS TAKEN TO CORRECT DEFICIENCIES FOUND DURING THE INSPECTION.  
[RULE 1303(a)(1)-BACT]
9. ALL RECORDS REQUIRED TO DEMONSTRATE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT SHALL BE MAINTAINED FOR A MINIMUM OF TWO YEARS AND SHALL BE MADE AVAILABLE TO THE AQMD PERSONNEL UPON REQUEST.  
[RULE 1303(a)(1)-BACT]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### PERMIT TO CONSTRUCT

A/N 523073  
Granted as of 12/1/2011

#### Equipment Description:

AIR POLLUTION CONTROL SYSTEM NO. 3 CONSISTING OF:

1. NOX SCRUBBER, VERTICAL PACKED TYPE, SCRUBAIR SYSTEMS, MODEL SSQV, 3'-0" DIA. X 11'-6" H, WITH 6'-0" DEEP, LANTEC, 3.5" LANPAC XL POLYPROPYLENE PACKING, AND A 5.0 H.P. WATER RECIRCULATION PUMP.
2. EXHAUST SYSTEM WITH KIMRE COMPOSIT 5 MICRON MIST ELIMINATOR AND A 10.0 H.P. BLOWER VENTING TANKS 13, 14, 21, 23, 24, 29, 30, 31, 38, 40, 41 AND ASSOCIATED RINSE TANKS FROM THE DEBURRING LINE.

#### 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 EQUIPMENT SHALL BE IN OPERATION WHENEVER THE EQUIPMENT THAT IT VENTS IS IN OPERATION.  
[RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-OFFSETS]
4. THE OPERATOR SHALL INSTALL AND MAINTAIN A FLOW METER FOR THE SCRUBBER TO ACCURATELY INDICATE, IN GALLONS PER MINUTE, THE FLOW OF SCRUBBING SOLUTION TO THE NOZZLES.  
[RULE 1303(a)(1)-BACT]
5. NOT LESS THAN 100 GPM OF RECIRCULATING WATER SHALL BE SUPPLIED TO THE SCRUBBER SPRAY NOZZLES WHEN THE EQUIPMENT IT SERVES IS IN OPERATION.  
[RULE 1303(a)(1)-BACT]
6. A PH INDICATOR SHALL BE INSTALLED TO MONITOR THE PH OF THE SCRUBBER SOLUTION. THE CIRCULATING WATER TO THE SCRUBBER SHALL BE MAINTAINED AT PH 12.5 OR HIGHER.  
[RULE 1303(a)(1)-BACT]
7. THE OPERATOR SHALL INJECT SODIUM SULFIDE OR SODIUM HYDROGEN SULFIDE INTO THE SCRUBBING SOLUTION OF THE SCRUBBER.  
[RULE 1303(a)(1)-BACT]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

8. THE OPERATOR SHALL INSTALL AND MAINTAIN AN OXIDATION/REDUCTION POTENTIAL (ORP) METER TO ACCURATELY INDICATE, IN MILLIVOLTS, THE OXIDATION/REDUCTION POTENTIAL OF THE SCRUBBING SOLUTION.  
[RULE 1303(a)(1)-BACT]
9. THE OXIDATION/REDUCTION POTENTIAL OF THE SCRUBBING SOLUTION SHALL NOT BE LESS THAN 350 MILLIVOLTS.  
[RULE 1303(a)(1)-BACT]
10. THE OWNER/OPERATOR SHALL COMPLY WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS FOR THE PACKED BED SCRUBBER LISTED BELOW:
  - A. QUARTERLY VISUAL INSPECTION OF THE DEVICE TO ENSURE THAT THE SPRAY NOZZLES ARE FUNCTIONING PROPERLY, THERE IS PROPER DRAINAGE, NO UNUSUAL BUILDUP ON THE PACKED BED, AND NO EVIDENCE OF CHEMICAL ATTACK THAT AFFECTS THE STRUCTURAL INTEGRITY OF THE DEVICE
  - B. QUARTERLY VISUAL INSPECTION OF THE DUCTWORK FROM THE TANK(S) TO THE CONTROL DEVICE TO ENSURE THERE ARE NO LEAKS.
  - C. PERFORM WASHDOWN OF THE COMPOSITE MESH PAD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - D. ADD FRESH MAKEUP WATER TO THE PACKED BED WHENEVER MAKEUP IS NEEDED.  
[RULE 1303(a)(1)-BACT]
13. THE OWNER/OPERATOR SHALL MAINTAIN INSPECTION AND MAINTENANCE RECORDS FOR THE AIR POLLUTION CONTROL SYSTEM AND MONITORING EQUIPMENT TO DOCUMENT COMPLIANCE WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS OF THIS PERMIT. THE RECORD SHALL IDENTIFY:
  - A. THE DEVICE INSPECTED.
  - B. THE DATE AND TIME OF INSPECTION.
  - C. THE WORKING CONDITION OF THE DEVICE DURING THE INSPECTION.
  - D. ANY MAINTENANCE ACTIVITIES PERFORMED ON THE AIR POLLUTION CONTROL SYSTEM OR PARAMETER MONITORING SYSTEM.
  - E. ANY ACTIONS TAKEN TO CORRECT DEFICIENCIES FOUND DURING THE INSPECTION.  
[RULE 1303(a)(1)-BACT]
14. ALL RECORDS REQUIRED TO DEMONSTRATE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT SHALL BE MAINTAINED FOR A MINIMUM OF TWO YEARS AND SHALL BE MADE AVAILABLE TO THE AQMD PERSONNEL UPON REQUEST.  
[RULE 1303(a)(1)-BACT]
15. THE OPERATOR OF THIS EQUIPMENT SHALL CONDUCT A SOURCE TEST UNDER THE FOLLOWING CONDITIONS:

## **FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON**

- A. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO THE DISTRICT NO LATER THAN 45 DAYS BEFORE THE PROPOSED TEST DATE AND SHALL BE APPROVED BY THE DISTRICT PRIOR TO THE SOURCE TEST. THE PROTOCOL SHALL INCLUDE THE PROPOSED OPERATING CONDITIONS OF THE TEST, THE IDENTITY OF THE TESTING LABORATORY, AND A DESCRIPTION OF ALL SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.
- B. A SMOKE TEST SHALL BE CONDUCTED PRIOR TO THE ACTUAL SOURCE TEST TO DEMONSTRATE THAT NO FUGITIVE EMISSIONS WILL OCCUR DURING OPERATION.
- C. THE SOURCE TEST SHALL BE CONDUCTED 30 CALENDAR DAYS AFTER INITIAL START-UP.
- D. THE SOURCE TEST SHALL BE CONDUCTED WHILE TANK NOS. 38, 40 AND 41 VENTED TO THIS EQUIPMENT ARE OPERATED AT MAXIMUM LOAD.
- E. DURING THE TEST, THE TYPE, SIZE, AND QUANTITY OF THE PARTS BEING PROCESSED, THE WEIGHT CONCENTRATIONS OF THE ACIDS IN THE ABOVE TANKS, THE PRESSURE DROP ACROSS THE SCRUBBER, NOX AND PM INLET AND OUTLET, pH, ORP POTENTIAL IN mV, AND THE SCRUBBERS EFFICIENCY SHALL BE MONITORED AND REPORTED IN THE SOURCE TEST REPORT.
- F. THE DISTRICT ENGINEER SHALL BE NOTIFIED OF THE DATE AND TIME OF THE TEST AT LEAST 10 CALENDAR DAYS PRIOR TO THE TEST.
- G. THE SOURCE TEST SHALL COMPLY WITH THE ATTACHED DISTRICT "GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES" PURSUANT TO DISTRICT RULE 217.
- H. THE SOURCE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST METHOD OUTLINED IN THE DISTRICT RULES AND REGULATIONS.
- I. THE SOURCE TEST SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED TESTING LABORATORY PURSUANT TO DISTRICT RULE 304.
- J. THE SOURCE TEST REPORT SHALL INCLUDE RESULTS OF THE SMOKE TEST, THE SOURCE TEST, THE OPERATING PARAMETERS OUTLINED IN THE PERMIT CONDITIONS. THE REPORT SHALL BE SUBMITTED TO THE DISTRICT NO LATER THAN 60 CALENDAR DAYS AFTER THE SOURCE TEST DATE.

[RULE 1303(a)(1)-BACT]

## FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON

### 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, AND (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, AND (c) VOC CONTENT AS APPLIED IN g/L OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

[RULE 3004 (a) (4)]

**Emissions And Requirements:**

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

VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

## **FACILITY PERMIT TO OPERATE SORENSEN ENGINEERING INC, FRANK SORENSON**

### **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 REGULATION:

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS