AIR QUALITY DEPARTMENT
1001 North Central Ave., Suite 125
Phoenix, Arizona 85004-1942
(602) 506-6010
(602) 506-6985 (FAX)

TITLE V AIR QUALITY OPERATING PERMIT

Permit Number: V97-008
Revision Number: 2.0.0.0

Original Issue Date: January 27, 2006
Renewal Date: XXXXXXXX
Expiration Date: XXXXXXXX

Permittee Name: Honeywell Engines, Inc
Mailing Address: 111 S 34th St, Mail Stop 158, Phoenix, AZ 85034
Business Name: Honeywell International, Inc
Facility Address: 115 Tabor Road, Morris Plains, NJ 07950

Equipment and Processes Covered: Honeywell owns and operates an engine manufacturing and test facility (for turbine engines, turbofan engines, and auxiliary power units) in Phoenix, Arizona. The facility requires a Title V permit because of its potential to emit oxides of nitrogen (NO_x is greater than 100 tons per year.

This Permit is issued in accordance with Maricopa County Air Pollution Control Regulations, Rule 200, §301, and Arizona Revised Statutes, §49-404c and §49-480. The attached Permit Conditions are incorporated into and form an integral part of this Permit. The Permit is issued to provide regulators, site operators or owners, and members of the public, a clear picture of what the Permit holder is required to do to meet applicable requirements. As the Permit holder, you are expected to review this Permit, become familiar with its provisions and conditions and to operate in conformance with them. This Permit is an enforceable document. Failure to conform to the emission limits and any other condition contained in the Permit is a violation of law and will form the basis of enforcement action by the department which may include civil or criminal sanctions.

If the MCAQD Control Officer determines that additional monitoring, sampling, modeling and/or control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and/or welfare, the MCAQD Control Officer will amend the provisions of this Permit. This Permit may be subject to suspension or revocation for cause including nonpayment of fees, noncompliance with Arizona State Statutes, Maricopa County Air Quality Regulations, or the attached Permit Conditions, or if the MCAQD Control Officer determines that significant misrepresentation exists in the application and supporting documentation filed to obtain or modify this Permit.

_____

Philip A. McNeely, R.G.
Maricopa County Air Quality Control Officer

COMMON ABBREVIATIONS

Act ..... Federal Clean Air Act
AAAC..... Acute Ambient Air Concentration
AAC..... Arizona Administrative Code
ADEQ..... Arizona Department of Environmental Quality
AIRS..... Aerometric Information Retrieval System
ARS ..... Arizona Revised Statutes
AZMACT ..... Arizona Maximum Achievable Control Technology
ASTM..... American Society of Testing and Materials
BACT ..... Best Available Control Technology
Btu ..... British thermal unit
CAA..... Clean Air Act
CAAC ..... Chronic Ambient Air Concentration
CAS ..... Chemical Abstract Service
CEMS ..... Continuous emissions monitoring system
CFR ..... Code of Federal Regulations
CO ..... Carbon Monoxide
dscf ..... Dry standard cubic feet
ECS..... Emission Control System
EPA ..... US Environmental Protection Agency
HAP..... Hazardous Air Pollutant
ID..... Identification number
MACT ..... Maximum Achievable Control Technology
MCAQD ..... Maricopa County Air Quality Department
NA ..... Not applicable
NAAQS ..... National Ambient Air Quality Standards
NESHAP ..... National Emission Standards for Hazardous Air Pollutants
NMHC..... Non-methane hydrocarbon
NO_x..... Nitrogen oxides
NSPS ..... New Source Performance Standards
O_2..... Oxygen
O&M ..... Operation and maintenance
Pb..... Lead
PM ..... Particulate matter
$PM_{2.5}$..... Particulate matter less than 2.5 microns in size
PM_{10}..... Particulate matter less than 10 microns in size
ppm..... Parts per million
psia..... pounds per square inch, actual
RACT ..... Reasonably Available Control Technology
RVP ..... Reid Vapor Pressure
SIP ..... State Implementation Plan
SO_2..... Sulfur dioxide
VE..... Visible Emissions
VOC..... Volatile Organic Compounds

TABLE OF CONTENTS

Date Issued: 01/27/2006
Revision: 2.0.0.0
Renewal Date: xxxxxxxxxxxxxxxx
Expiration Date: xxxxxxxxxxxxx

In accordance with Maricopa County Air Pollution Control Rules and Regulations (Rules), Rule 210 §302.2, all Conditions of this Permit are federally enforceable unless they are identified as being locally enforceable only. However, any Permit Condition identified as locally enforceable only will become federally enforceable if, during the term of this Permit, the underlying requirement becomes a requirement of the Clean Air Act (CAA) or any of the CAA's applicable requirements.

All federally enforceable terms and conditions of this Permit are enforceable by the Administrator of the United States Environmental Protection Agency (Administrator or Administrator of the USEPA hereafter) and citizens under the CAA.

Any cited regulatory paragraphs or section numbers refer to the version of the regulation that was in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise. In the event the rules and regulations are amended during the term of this Permit, the amended rules and regulations shall apply to this Permit.

GENERAL CONDITIONS:

1. AIR POLLUTION PROHIBITED:

The Permittee shall not discharge from any source whatever into the atmosphere regulated air pollutants which exceed in quantity or concentration that specified and allowed in the County or SIP Rules, the Arizona Administrative Code (AAC) or the Arizona Revised Statutes (ARS), or which cause damage to property or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Maricopa County Board of Supervisors or the Director of the Arizona Department of Environmental Quality (ADEQ).

[Rule 100 §301] [locally enforceable only]

2. CIRCUMVENTION:

The Permittee shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of regulated air pollutants to the atmosphere, conceals or dilutes an emission which would otherwise constitute a violation of this Permit or any Rule or any emission limitation or standard. The Permittee shall not circumvent the requirements concerning dilution of regulated air pollutants by using more emission openings than is considered normal practice by the industry or activity in question.

[Rule 100 §104] [40 CFR 70.6(a)(1)]

3. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:

Any application form, report, or compliance certification submitted under County or Federal Rules or these Permit Conditions shall contain certification by a responsible official of truth, accuracy, and completeness of the application form or report as of the time of submittal. This certification and any other certification required under County or Federal Rules or these Permit Conditions shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[Rule 100 §401] [Rule 210 §§301.7 & 305.1(e)] [40 CFR 70.5(d)]

4. COMPLIANCE:

a. COMPLIANCE REQUIRED:

i. The Permittee must comply with all conditions of this permit and with all applicable

requirements of Arizona air quality statutes and the air quality rules. Compliance with permit terms and conditions does not relieve, modify, or otherwise affect the Permittee's duty to comply with all applicable requirements of Arizona air quality statutes and the Maricopa County Air Pollution Control Regulations. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. Noncompliance with any federally enforceable requirement in this Permit constitutes a violation of the Act.

[Rule 210 §§301.8(b)(4) & 302.1(h)(1)] [40 CFR 70.5(c)(8)(i)]

ii. The Permittee shall halt or reduce the permitted activity in order to maintain compliance with applicable requirements of Federal laws, Arizona laws, the County Rules, or other conditions of this Permit. [This Condition is federally enforceable if the condition or requirement itself is federally enforceable and only locally enforceable if the condition or requirement itself is locally enforceable only.]

[Rule 210 §302.1(h)(2)]

iii. For any major source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, the source shall comply with reasonably available control technology (RACT) as defined in Rule 100.

[Rule 210 §302.1(h)(6)] [SIP Rule 210 §302.1]

iv. For any major source operating in a nonattainment area designated as serious for PM_{10}, for which the source is classified as a major source for PM_{10}, the source shall comply with the best available control technology (BACT), as defined in Rule 100 for PM_{10}.

[Rule 210 §302.1(h)(7)] [locally enforceable only]

b. COMPLIANCE PLAN:
Based on the certified information contained in the application for this Permit, the facility is in compliance with all applicable requirements in effect as of the first date of public notice of the proposed conditions for this Permit unless a Compliance Plan is included in the Specific Conditions of this Permit. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis.

[Rule 210 §305.1(g)] [40 CFR 70.5(c)(8)]

5. CONFIDENTIALITY CLAIMS:

Any records, reports or information obtained from the Permittee under the County Rules or this Permit shall be available to the public, unless the Permittee files a claim of confidentiality in accordance with ARS §49-487(c) that:

a. Precisely identifies the information in the permit(s), records, or reports that is considered confidential, and

b. Provides sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position. The claim of confidentiality is subject to the determination by the Control Officer as to whether the claim satisfies these requirements.

A claim of confidentiality shall not excuse the Permittee from providing any and all information required or requested by the Control Officer and shall not be a defense for failure to provide such information.

If the Permittee submits information with an application under a claim of confidentiality pursuant to ARS §49-487 and Rule 200, the Permittee shall submit a copy of such information directly to the

Administrator of the USEPA.

[Rule 100 §402] [Rule 200 §411] [Rule 210 §301.5] [40 CFR 70.5(a)(3)]

6. CONTINGENT REQUIREMENTS:

NOTE: This Permit Condition covers activities and processes addressed by the CAA which may or may not be present at the facility.

a. ASBESTOS:
The Permittee shall comply with the applicable requirements of 40 CFR 61.145 through 61.147 and 61.150 of the National Emission Standard for Asbestos and Rule 370 for all demolition and renovation projects.

[40 CFR Part 61 Subpart M] [Rule 370 §301.9]

b. RISK MANAGEMENT PLAN (RMP):
Should this stationary source, as defined in 40 CFR 68.3, be subject to the accidental release prevention regulations in 40 CFR Part 68, then the Permittee shall submit an RMP by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70. However, neither the RMP nor modifications to the RMP shall be considered to be a part of this Permit.

[40 CFR Part 68]

c. STRATOSPHERIC OZONE PROTECTION:
If applicable, the Permittee shall follow the requirements of 40 CFR 82.100 through 82.124 with respect to the labeling of products using ozone depleting substances.

If applicable, the Permittee shall comply with all of the following requirements with respect to recycling and emissions reductions for Class I and Class II Refrigerants and their substitutes:

i. All Persons opening and disposing of appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

ii. Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158.

iii. Equipment testing organizations must comply with 40 CFR 82.160.

iv. Persons performing maintenance, service, repair, or disposal of appliances must be certified by a certified technician pursuant to 40 CFR 82.161.

v. Certification requirements of 40 CFR 82.162 and 82.164, as applicable.

vi. Reporting and Recordkeeping requirements in 40 CFR 82.166.

If applicable, the Permittee shall follow the requirements of 40 CFR Part 82 Subpart G, including all Appendices, with respect to the safe alternatives policy on the acceptability of substitutes for ozone-depleting compounds.

[40 CFR Part 82 Subparts E, F, and G]

7. DUTY TO SUPPLEMENT OR CORRECT APPLICATION:

If the Permittee fails to submit any relevant facts or has submitted incorrect information in a permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

[Rule 210 §301.6] [40 CFR 70.5(b)]

8. EMERGENCY EPISODES:

If an air pollution alert, warning, or emergency has been declared, the Permittee shall comply with any applicable requirements of Rule 600 §302.

[Rule 600 §302] [SIP Rule 600 §302]

9. EMERGENCY PROVISIONS:

An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[Rule 130 §201] [40 CFR 70.6(g)]

10. EXCESS EMISSIONS:

NOTE: There are reporting requirements associated with excess emissions. These requirements are contained in Permit Condition 16.f in a subparagraph called Excess Emissions. The definition of excess emissions can be found in Rule 100 §200.

[Rule 140 §500] [SIP Rule 140]

11. FEES:

The Permittee shall pay fees to the Control Officer pursuant to ARS §49-480(D) and Rule 280.

[Rule 200 §409] [Rule 210 §§302.1(i) and §401] [40 CFR 70.9(a)]

12. MODELING:

The Permittee shall perform the modeling in a manner consistent with the 40 CFR 51, Appendix W, "Guideline on Air Quality Models". Except for minor New Source Review, the Permittee shall perform air quality impact modeling in a manner consistent with “MCAQD Minor New Source Review Air Dispersion Modeling Guideline”. Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted if found to be acceptable to the Control Officer.

[40 CFR 51 App. W] [Rule 200 §407]

13. MONITORING AND TESTING:

a. MONITORING REQUIRED: The Permittee shall monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to the facility if required to do so by the Control Officer, either by Permit or by order in accordance with Rule 200 §310.

[Rule 200 §310] [40 CFR 70.6(a)(3)]

b. TESTING REQUIRED: Except as otherwise specified in these Permit Conditions or by the Control Officer, the Permittee shall conduct required testing used to determine compliance with standards or permit conditions established pursuant to the County or SIP Rules or these Permit Conditions in accordance with Rule 270 and the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions or other approved USEPA test methods.

[Rules 200 §408; 210 §302.1.(c); and Rule 270 §§300 and 400] [40 CFR 70.6(a)(3)]

c. TESTING FACILITIES: The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to such source.

ii. Safe sampling platform(s).

iii. Safe access to sampling platforms(s).

iv. Utilities for sampling and testing equipment.

[Rule 270 §405] [locally enforceable only]

14. PERMITS:

a. BASIC:
This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

[Rule 210 §302.1(h)(3)] [40 CFR 70.7(f)]

b. PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS:

i. The Permittee shall comply with the Administrative Requirements of Section 400 of Rule 210 for all changes, amendments and revisions at the facility for any source subject to regulation under Rule 200, shall comply with all required time frames, and shall obtain any required preapproval from the Control Officer before making changes. All applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision including information listed in Rule 200 §309 and Rule 210 §301.

[Rule 200 §§301 & 309] [Rule 210 §§301 & 400] [40 CFR 70.7(e)]

ii. The Permittee shall supply a complete copy of each application for a permit, a minor permit revision, or a significant permit revision directly to the Administrator of the USEPA. The Control Officer may require the application information to be submitted in a computer-readable format compatible with the Administrator's national database management system.

[Rule 210 §§303.1(a) & 303.2] [locally enforceable only]

iii. While processing an application, the Control Officer may require the applicant to provide additional information and may set a reasonable deadline for a response. If, while processing an application that has been determined or deemed to be complete, the Control Officer determines that additional information is necessary to evaluate or to take final action on that application, the Control Officer may request such information in writing and may set a reasonable deadline for a response.

[Rule 210 §301.4(f)] [40 CFR 70.5(a)(2)]

iv. No permit revision shall be required pursuant to any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

[Rule 210 §302.1(j)] [40 CFR 70.6(a)(8)]

c. POSTING:

i. The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.

[Rule 200 §312] [locally enforceable only]

ii. Any approved Dust Control Plan or Dust Control Permit required by Rule 310 shall be posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise be kept available on site at all times.

[Rule 310 §409] [SIP Rule 310 §409]

d. PROHIBITION ON PERMIT MODIFICATION:
The Permittee shall not willfully deface, alter, forge, counterfeit, or falsify this permit.

[Rule 200 §311] [locally enforceable only]

e. RENEWAL:

i. The Permittee shall submit an application for the renewal of this Permit in a timely and complete manner. The Permittee shall file all permit applications in the manner and form prescribed by the Control Officer. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. A complete application shall contain all of the information required by the County Rules including Rule 200 §309 and Rule 210 §§301 & 302.3.

[Rule 200 §309] [Rule 210 §§301 and 302] [40 CFR 70.7(c)]

ii. If the Permittee submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. This protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application.

[Rule 200 §403.2] [Rule 210 §§301.4(f) and 301.9] [40 CFR 70.7(c)(1)(ii)]

f. REVISION / REOPENING / REVOCATION:

i. If the Permittee becomes subject to a standard promulgated by the Administrator under Section 112(d) of the CAA, the Permittee shall, within 12 months of the date on which the standard was promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

[Rule 210 §301.2(c)] [locally enforceable only]

ii. This permit shall be reopened and revised to incorporate additional applicable requirements adopted by the Administrator pursuant to the CAA that become applicable to the facility if this permit has a remaining permit term of three or more years and the facility is a major source. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this Permit is due to expire unless the original permit or any of its terms have been extended pursuant to Rule 200 §403.2.

[Rule 200 §402.1(a)(1)] [40 CFR 70.7(f)(1)(i)]

Any permit revision required pursuant to this Permit Condition, 14.f.i, shall reopen the entire permit, shall comply with provisions in Rule 200 for permit renewal, and shall reset the five year permit term.

[Rule 200 §402.1(a)(1)] [Rule 210 §302.5] [locally enforceable only]

iii. This permit shall be reopened and revised under any of the following circumstances:

1) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.

2) The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

3) The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue a permit under this Permit Condition, Subpart iii, shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the Permit for which cause to reopen exists.

[Rule 200 §402.1] [40 CFR 70.7(f)]

iv. This permit shall be reopened by the Control Officer and any permit shield revised when it is determined that standards or conditions in the permit are based on incorrect information provided by the applicant.

[Rule 210 §407.3] [locally enforceable only]

g. REQUIREMENTS FOR A PERMIT:

i. No source may operate after the time that it is required to submit a timely and complete application except as noted in Sections 403 and 405 of Rule 210. Permit expiration terminates the Permittee's right to operate. However, if a source submits a timely and complete application, as defined in Rule 210 §301.4, for permit issuance or renewal, the source's failure to have a permit is not a violation of the County Rules until the Control Officer takes final action on the application. The Source's ability to operate without a permit as set forth in this paragraph shall be in effect from the date the application is determined to be complete until the final permit is issued. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application.

[Rule 210 §301.9] [40 CFR 70.7(b)]

ii. If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee shall apply to have the routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction and revegetation, require a separate Dust Control Permit that must be obtained from the Control Officer before the activity may begin.

1) The Permittee shall not commence any routine dust-generating operation that disturbs a surface area of 0.10 acre or greater without first submitting a Dust Control Plan to the Control Officer.

[Rule 310 §§302.3 & 402.1] [SIP Rule 310 §302.1]

2) The Permittee shall request a Dust Control Plan revision with a submittal in the manner and form prescribed by the Control Officer if:

a) The acreage of a project changes;

b) The permit holder changes;

c) The name(s), address(es), or phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust-generating operation change; and

d) If the activities related to the purposes for which the Dust Control permit was obtained change.

[Rule 310 §403.2] [SIP Rule 310]

iii. A subcontractor who is engaged in dust-generating operations at a site that is subject to a Dust Control Permit shall register with the Control Officer and follow those registration requirements in Rule 200.

[Rule 200 §306] [SIP Rule 310 §302]

iv. Burn Permit: The Permittee shall obtain a Permit To Burn from the Control Officer

before conducting any open outdoor fire except for the activities listed in Rule 314 §303.
[Rule 314] [Rule 200 §307] [SIP Rule 314]

h. RIGHTS AND PRIVILEGES:
This Permit does not convey any property rights nor exclusive privilege of any sort.
[Rule 210 §302.1(h)(4)] [40 CFR 70.6(a)(6)(iv)]

i. SEVERABILITY:
The provisions of this Permit are severable, and, if any provision of this Permit is held invalid, the remainder of this Permit shall not be affected thereby.
[Rule 210 §302.1(g)] [40 CFR 70.6 (a)(5)]

j. SCOPE:
The issuance of any permit or permit revision shall not relieve the Permittee from compliance with any Federal laws, Arizona laws, or the County or SIP Rules, nor does any other law, regulation or permit relieve the Permittee from obtaining a permit or permit revision required under the County Rules.
[Rule 200 §309] [locally enforceable only]

Nothing in this permit shall alter or affect the following:

i. The provisions of Section 303 of the Act, including the authority of the Administrator pursuant to that section.

ii. The liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

iii. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act.

iv. The ability of the Administrator of the USEPA or of the Control Officer to obtain information from the Permittee pursuant to Section 114 of the Act, or any provision of State law.

v. The authority of the Control Officer to require compliance with new applicable requirements adopted after the permit is issued.
[Rule 210 §407.2] [40 CFR 70.6(f)(3)]

k. TERM OF PERMIT:
This Permit shall remain in effect for no more than 5 years from the date of issuance.
[Rule 210 §§302.1(a) & 402] [40 CFR 70.6(a)(2)]

l. TRANSFER:
Except as provided in ARS §49-429 and Rule 200, this permit may be transferred to another person if the Permittee gives notice to the Control Officer in writing at least 30 days before the proposed transfer and complies with the permit transfer requirements of Rule 200 and the administrative permit amendment procedures pursuant to Rule 210.
[Rule 200 §404] [Rule 210 §404] [40 CFR 70.7(d)(1)(iv)]

15. RECORDKEEPING:

a. RECORDS REQUIRED:
The Permittee shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced and any other records relating to the emission of air contaminants which may be requested by the Control Officer.

[Rule 100 §501] [40 CFR 70.6(a)(3)(ii)]

b. RETENTION OF RECORDS:
Unless a longer time frame is specified by the Rules or these Permit Conditions, the Permittee shall retain information and records required by either the Control Officer or these Permit Conditions as well as copies of summarizing reports recorded by the Permittee and submitted to the Control Officer for 5 years after the date on which the pertinent report is submitted.
[Rule 100 §504] [40 CFR 70.6(a)(3)(ii)(B)]

c. MONITORING RECORDS:
The Permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or physical records for continuous monitoring instrumentation, and copies of all reports required by the permit. Records of any monitoring required by this Permit shall include the following:

i. The date, place as defined in the permit, and time of sampling or measurements;

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.
[Rule 210 §§302.1(d) and 305.1(b)] [40 CFR 70.6(a)(3)(ii)(C)(ii)(A)]

d. RIGHT OF INSPECTION OF RECORDS:
When the Control Officer has reasonable cause to believe that the Permittee has violated or is in violation of any provision of Rule 100 or any County Rule adopted under Rule 100, or any requirement of this permit, the Control Officer may request, in writing, that the Permittee produce all existing books, records, and other documents evidencing tests, inspections, or studies which may reasonably relate to compliance or noncompliance with County Rules adopted under Rule 100. No person shall fail nor refuse to produce all existing documents required in such written request by the Control Officer.
[Rule 100 §106] [40 CFR 70.6(c)]

16. REPORTING:
NOTE: See Permit Condition 3 in conjunction with reporting requirements.

a. ANNUAL EMISSION INVENTORY REPORT:
Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30 or 90 days after the Control Officer makes the inventory forms available, whichever occurs later. The annual emissions inventory report shall be in the format provided by the Control Officer. The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under ARS §49-476.01, ARS §49-480.03.
[Rule 100 §505] [SIP Rule 100 §500]

b. DATA REPORTING:
When requested by the Control Officer, the Permittee shall furnish information to locate and classify air contaminant sources according to type, level, duration, frequency and other characteristics of emissions and such other information as may be necessary. This information

shall be sufficient to evaluate the effect on air quality and compliance with the County or SIP Rules. The Permittee may be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.

[Rule 100 §502] [SIP Rule 100 §500]

c. DEVIATION REPORTING:

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions. Unless specified otherwise elsewhere in these Permit Conditions, an upset for the purposes of this Permit Condition shall be defined as the operation of any process, equipment or air pollution control device outside of either its normal design criteria or operating conditions specified in this Permit and which results in an exceedance of any applicable emission limitation or standard.

i. For emissions in excess of permit requirements, the Permittee shall notify the Control Officer by email, telephone, or facsimile within 24 hours of knowledge of the deviation. A detailed written deviation report shall be submitted within 72 hours of the notification.

ii. All other deviations that do not result in an exceedance of any applicable emission limitation or standard shall be documented in the same manner, promptly logged in the facility records within 2 working days and included in the next semiannual monitoring report.

The report and documentation in the log shall contain a description of the probable cause of such deviations and any corrective actions or preventive measures taken. In addition, the Permittee shall report within a reasonable time any long-term corrective actions or preventive actions taken as the result of any deviations from permit requirements if applicable. All instances of deviations from the requirements of this Permit shall be clearly identified in the semiannual monitoring reports.

[Rule 210 §§302.1(e) & 305.1(c)] [SIP Rule 140 §500]

d. EMERGENCY REPORTING:

The Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency and submit notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[Rule 130 §402.4] [40 CFR 70.6(g)]

e. EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT:

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall provide the Control Officer with an annual emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions. At a minimum the emission statement shall contain all information required by the Consolidated Emissions Reporting Rule in 40 CFR Part 51, Subpart A, Appendix A, Table 2A. The statement shall contain emissions for the time period specified by the Control Officer. The statement shall also contain a certification by a responsible official of the company that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement.

[Rule 100 §503] [SIP Rule 100 §500]

f. EXCESS EMISSIONS REPORTING:

(NOTE: This reporting subsection is associated with Permit Condition 10 entitled “Excess Emissions”.)

i. The Permittee shall report to the Control Officer any emissions in excess of the limits established either by the County or SIP Rules or these Permit Conditions. The report shall be in two parts as specified below:

1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions. This notification shall include all available information listed in Permit Condition 16.f.ii.

2) A detailed written notification of an excess emissions report shall be submitted within 72 hours of the telephone notification in Permit Condition 16.f.i.1.

ii. The excess emissions report shall contain the following information:

1) The identity of each stack or other emission point where the excess emissions occurred.

2) The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.

3) The time and duration or expected duration of the excess emissions.

4) The identity of the equipment from which the excess emissions emanated.

5) The nature and cause of such emissions.

6) The steps taken if the excess emissions were the result of a malfunction to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction.

7) The steps that were or are being taken to limit the excess emissions.

8) If this Permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with the Permit procedures.

iii. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the Permittee provides the required notification after excess emissions are first detected and includes in the notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification that meets the criteria of this Permit Condition.

[Rule 140 §500] [SIP Rule 140]

g. OTHER REPORTING:
The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing this permit, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by this Permit. For information claimed to be confidential, the Permittee shall furnish a copy of such records directly to the Administrator along with a claim of confidentiality pursuant to Permit Condition 5.

[Rule 210 §302.1(h)(5)] [40 CFR 70.6(a)(6)(v)]

17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:

a. The Control Officer during reasonable hours, for the purpose of enforcing and administering County or SIP Rules or the Clean Air Act, or any provision of the Arizona Revised Statutes

relating to the emission or control prescribed pursuant thereto, may enter every building, premises, or other place, except the interior of structures used as private residences. Every person is guilty of a petty offense under ARS §49-488 who in any way denies, obstructs or hampers such entrance or inspection that is lawfully authorized by warrant.

b. The Permittee shall allow the Control Officer or his authorized representative, upon presentation of proper credentials and other documents as may be required by law, to:

i. Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records are required to be kept pursuant to the conditions of the permit;

ii. Have access to and copy, at reasonable times, any records that are required to be kept pursuant to the conditions of the permit;

iii. Inspect, at reasonable times, any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;

iv. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

v. Record any inspection by use of written, electronic, magnetic, and photographic media.

[Rule 100 §105] [Rule 210 §305.1(f)] [40 CFR 70.6(c)(2)]

SPECIFIC PERMIT CONDITIONS:

18. FACILITY-WIDE ALLOWABLE EMISSION LIMITS:

a. OPACITY REQUIREMENTS:
No person shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any 60-minute period.

If any non-compliant visible emissions (excluding water vapor) are detected or reported, the Permittee shall determine the cause and/or the source of emissions. The Permittee shall then take immediate corrective action(s) and if necessary, shut down the applicable equipment. If visible emissions (excluding water vapor) exceed the above opacity standards subsequent to implementing corrective action(s), the Permittee shall shut down the applicable equipment and institute repairs or changes necessary to ensure compliance prior to resuming operations.

[Rule 300 §§301, 501]

b. PARTICULATE MATTER LIMITS FOR FUEL BURNING EQUIPMENT:
The Permittee shall not discharge or cause or allow the discharge of particulate matter emissions, caused by combustion of fuel, from any fuel burning operation in excess of amounts determined by the following equation:

$$E = 1.02\ Q^{0.769}$$

Where:
E = The maximum allowable emission rate in pounds-mass per hour, and
Q = The heat output in million BTU per hour.

[SIP Rule 311 §304.1] [SIP Rule 31(H)]

c. FACILITY-WIDE REQUIREMENTS:

The Permittee shall not cause, allow, or permit emissions in excess of the monthly and 12 month rolling limits shown in Table 18.1.

TABLE 18.1: Facility-Wide Emissions Limits

Pollutant	Rolling 12 - Month Emission Limits
Any Single Hazardous Air Pollutant (HAP)	9.0 tons
Total Hazardous Air Pollutants (HAPs)	22.5 tons

The rolling 12 month limit shall be calculated by summing the monthly emissions from all processes that have HAP emissions for the most recent 12 calendar months.

[County Rule 210 §302.1b][County Rule 100 §§200.16 and 200.49]

19. FACILITY OPERATIONAL LIMITATIONS AND REQUIREMENTS:

a. VOLATILE ORGANIC COMPOUND (VOC) CONTAINMENT AND DISPOSAL:
No person shall store, discard, or dispose of VOC or VOC-containing material in a way intended to cause or to allow the evaporation of VOC to the atmosphere. Reasonable measures shall be taken to prevent such evaporation, which include but are not limited to the following:

i. All materials from which VOC can evaporate, including fresh solvent, waste solvent and solvent soaked rags and residues, shall be stored in closed containers;

ii. Such containers one gallon and larger shall be legibly labeled with their contents; and

iii. Records of the disposal/recovery of such materials shall be kept. Records of hazardous

waste disposal shall be kept in accordance with hazardous waste disposal statutes.
[SIP Rule 32C] [County Rule 330§ 306]

b. The Reform CNC Blade Tip Grinder shall at all times be operated with a properly functioning baghouse with a filter efficiency rating of BIA Class U.S.G.C. or better.
[County Rule 210 §302.1b] [SIP Rule 3]

c. The Permittee shall comply with the Control Officer approved Operation and Maintenance (O&M) plan for the Building 422 Waste Water Treatment Plant (WWTP) Scrubber 92415025. The Permittee shall revise the O&M plan on an as needed basis or at the direction of the Control Officer. The Permittee shall submit all revisions to the Control Officer for approval.
[County Rule 210 §§302.1c(1)] [Locally enforceable only]

20. FACILITY MONITORING AND RECORDKEEPING REQUIREMENTS:

a. The Permittee shall log the following information for all visible emissions observations. Opacity readings shall be taken using EPA Method 9 as modified by EPA Reference Method 203B:

i. The date and time the reading was taken,

ii. The name of the observer,

iii. Whether or not visible emissions were present,

iv. If visible emissions are present and the controls and facility processes are operating in a mode other than their normal operating conditions, such as startup or shutdown, a description of the operating conditions at the time that the opacity is observed,

v. The opacity determined by an opacity reading,

vi. If applicable, a description of any corrective action(s) taken, including the date of such action(s), and

vii. Any other related information.
[County Rule 300] [County Rule 210 §302.1] [Locally enforceable only]

b. The Permittee shall conduct a weekly facility walk through and observe for visible emissions. The visible observations shall be conducted for the overall facility, including stacks and other general emission points and for any emission source specified in this Permit.
[County Rules 300] [County Rule 210 §302.1c] [Locally enforceable only]

c. If visible emissions, other than uncombined water, are observed being discharged into the ambient air, the Permittee shall monitor for compliance with the opacity standards specified in this permit by having a certified visible emissions evaluator determine the opacity of the visible emissions being discharged into the ambient air.

The initial opacity reading shall be taken within one day (24 hours) of observing visible emissions. If the emitting equipment is not operating on the day that the initial opacity reading is required to be taken, then the initial opacity reading shall be taken the next day that the emitting equipment is in operation. If the problem causing the visible emissions is corrected before the initial opacity reading is required to be performed, and there are no visible emissions (excluding uncombined water) observed from the previously emitting equipment while the equipment is in normal operation, the Permittee shall not be required to conduct the opacity readings.

Follow-up Method 9 opacity readings and calculations from Method 203B, as applicable, shall be performed by a certified visible emissions evaluator while the emitting equipment is in its standard mode of operation in accordance with the following schedule:

i. Except as provided in paragraph iii of this Permit Condition, an opacity reading shall be conducted each day that the emitting equipment is operating until a minimum of 14 daily readings have occurred.

ii. If the opacity readings required by this Permit Condition are less than 20% for 14 consecutive days, the frequency of opacity readings may be decreased to weekly, in accordance with paragraph 3) of this Permit Condition.

iii. If the Permittee has obtained 14 consecutive daily opacity readings which do not exceed 20%, the frequency of Method 9 readings may be decreased to once per week for any week in which the equipment is operated.

iv. If the opacity measured during a weekly reading exceeds 20%, the frequency of Method 9 opacity readings shall revert to daily, in accordance with paragraph i. of this Permit Condition.

v. If the opacity measured during the required weekly readings never exceeds 20%, the Permittee shall continue to obtain weekly opacity readings until the requirements of paragraph iii. of this Permit Condition are met.

vi. Regardless of the applicable monitoring schedule, follow-up opacity readings may cease if the emitting equipment, while in its standard mode of operation, has no visible emissions, other than uncombined water, during every observation.

[County Rule 210 §302.1c] [Locally enforceable only]

d. OPACITY READINGS FROM INTERMITTENT SOURCES:

Opacity of visible emissions from intermittent sources shall be determined by observations conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.

[County Rule 300 §501 and 502] [Locally enforceable only]

e. MONITORING AND RECORDKEEPING REQUIREMENTS FOR DETERMINATION OF COMPLIANCE OF ORGANIC SOLVENTS:

Determination of the organic solvent content and composition of a solvent or material shall be made as of the time that the solvent or material is in its final form for application or employment, notwithstanding any prior blending, reducing, thinning or other preparation for application or employment. Emissions resulting from air or heat drying of products for the first 12 hours after the removal from any machine, equipment, device or other article shall be included in determining compliance with this rule.

[County Rule 330 §502] [locally enforceable only]

f. MONITORING AND RECORDKEEPING REQUIREMENTS FOR VOC CONTAINING MATERIALS:

i. Current List:

Maintain a current list of coatings, adhesives, makeup solvents, and any other VOC containing materials; state the VOC content of each in pounds per gallon or grams per liter. VOC content shall be expressed less water and non-precursor compounds for materials, which are not used for cleanup.

[County Rule 330 §503] [Locally enforceable only]

ii. Monthly Usage Records:
Maintain monthly records of the amount of each coating; adhesive; makeup solvent; solvent used for surface preparation, for cleanup, and for the removal of materials; and any other VOC-containing material used.
[County Rule 330 §503] [Locally enforceable only]

iii. Discarded VOC Materials:
Maintain records of the type, amount, and method of disposing of VOC-containing materials on each day of disposal.
[County Rule 330 §503] [Locally enforceable only]

g. MONITORING AND RECORDKEEPING REQUIREMENTS FOR HAP EMISSION LIMITS:
The Permittee shall monitor for compliance with the facility-wide HAP emissions limits of these Permit Conditions by monthly calculating and recording the monthly and the rolling 12 month emissions of HAPs. The calculations shall be made no later than the end of the following month. The 12 month rolling emissions total shall be calculated by summing the emissions for the most recent complete 12 calendar months. The monthly and rolling 12 month total emissions of HAPs from the facility shall be calculated based upon the usage records or emission factors for each month.
[County Rule 210 §302.1 c] [Locally enforceable only]

h. MONITORING AND RECORDKEEPING REQUIREMENTS FOR ABRASIVE BLASTING:

The Permittee shall keep the following records onsite and maintain all of the specified records for a total of five years and shall make them available to the control officer upon request:

i. A list of the blasting equipment.

ii. A description of the type of blasting.

iii. The locations of the blasting equipment.

iv. A description of the ECS associated with the blasting operation.

v. The days of the week blasting occurs.

vi. The normal hours of operation.
[County Rule 312 §501.1] [County Rule 210§302.1.d] [Locally enforceable only]

vii. The type and amount of solid abrasive material consumed on a monthly basis. Include name of certified abrasive used, if applicable.
[County Rule 312 §501.3] [County Rule 210§302.1 d]

viii. The Permittee shall maintain records of the weekly differential pressure readings for the ECS required by the O&M Plans.
[County Rule 210 §302.1]

ix. The Permittee shall log all visual observations and readings following the Method found in Condition 20 as applicable.
[County Rule 300] [County Rule 210 §302.1] [Locally enforceable only]

i. MONITORING AND RECORDKEEPING REQUIREMENTS FOR SOLVENT (DIP) CLEANING:

i. The Permittee shall maintain a current list of cleaning solvents; state the VOC content of each in pounds VOC per gallon of material or grams per liter of material.

ii. If the Permittee uses any cleaning solvent subject to the vapor pressure limits of County

Rule 331 §304.1 The Permittee shall have on site the written value of the total VOC vapor pressure of each such solvent in one of the following forms:

1) A manufacturer's technical data sheet,

2) A manufacturer's safety data sheet (SDS), or

3) Actual test results.

iii. The Permittee shall record the amount of cleaning solvent used at the end of each month for the previous month. Show the type and amount of each make-up and all other cleaning solvent.

iv. Annually the Permittee shall document the total usage of concentrate that is used only in the formulation of low VOC cleaner.

v. Annually the Permittee may, for purposes of recording usage, give cleaning solvents of similar VOC content a single group name, distinct from any product names in the group. The total usages of all products in that group are then recorded under just one name. (In such case the Permittee shall also keep a separate list that identifies the product names of the particular solvents included under the group name.) To the group name shall be assigned the highest VOC content among the members of that group, rounded to the nearest 0.1pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.

[County Rule 331 §501] [SIP Rule 331 §501]

j. MONITORING AND RECORDKEEPING REQUIREMENTS FOR SOLVENT USE OTHER THAN DIP CLEANING:

i. Maintain a current list of all aqueous and semi-aqueous hand-wipe cleaning solvents used with corresponding water contents.

ii. Maintain a current list of all vapor pressure compliant hand-wipe cleaning solvents in use with their respective vapor pressures or, for blended solvents, VOC composite vapor pressures and records of the monthly usage of such cleaning solvents.

iii. Maintain a current list of all hand-wipe cleaning processes using cleaning solvents with a vapor pressure greater than 45 mm Hg and records of the monthly usage of such cleaning solvents.

iv. The Permittee shall record the amount of cleaning solvent used at the end of each month for the previous month. Show the type and amount of each make-up and all other cleaning solvent.

[County Rule 348 §501.2] [SIP 348 §501.2]

k. MONITORING AND RECORDKEEPING REQUIREMENTS FOR VOLATILE ORGANIC LIQUID (VOL) STORAGE TANKS:

i. The Permittee shall keep copies of records readily accessible showing the dimensions of the storage vessels and an analysis showing the capacity for each of the storage vessels. This record shall be kept for the life of the source.

[40 CFR 60.116b(b)] [County Rule 360 §301.17]

ii. The Permittee shall keep copies of records readily accessible showing the VOL contained in each storage vessel and that the maximum true vapor pressure of each VOL at 92 °F or a temperature from available data of the storage temperature.

[40 CFR 60 §110b] [County Rule 360 §301.17]

iii. Available data on the storage temperature may be used to determine the maximum true

vapor pressure as determined below:

1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

2) The vapor pressure may be obtained by the following:

a) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from the nomographs contained in API Bulletin 2517 (incorporated by reference-see 40 CFR §60.17), unless the Control Officer specifically requests that the liquid be sampled, the actual storage temperature determined, the Reid vapor pressure determined from the sample(s).

b) The true vapor pressure may be obtained from standard reference texts, or

c) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference-see 40 CFR §60.17); or

d) Measured by an appropriate method approved by the Control Officer and the Administrator; or

e) Calculated by an appropriate method approved by the Control Officer and the Administrator.

[40 CFR 60 §116b(e)] [County Rule 360 §301.17]

iv. For each vessel storing a waste mixture of indeterminate or variable composition, the maximum true vapor pressure shall be recorded as the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored using the methods described in part 3) of this section.

[40 CFR 60 §116b] [County Rule 360 §301.17]

v. The Permittee shall monitor for compliance with the methanol usage limits of these Permit Conditions by monthly calculating and recording the monthly and the rolling 12 month usage of methanol. The calculations shall be made no later than the end of the following month. The 12 month rolling emissions total shall be calculated by summing the usages for the most recent complete 12 calendar months. The monthly and rolling 12 month total usage of methanol from the facility shall be calculated based upon the usage records for each month.

[County Rule 210 §302.1b] [Locally enforceable only]

l. MONITORING AND RECORDKEEPING REQUIREMENTS FOR PLATING OPERATIONS OTHER THAN CHROME PLATING:

i. The Permittee shall record the differential pressure, recirculation water flow rate, blowdown flow rate, visible emission reading for the ECSs once each week that the ECS is required to be in operation. The Permittee shall also note in the log the days when the ECS was not required to be in operation and therefore no readings were required. The observed parametric data value must be normalized to be representative of a stable condition at the time of the reading, (normalized means a representative value within the range of instrument oscillations). The observations shall exclude instantaneous, sudden movements or ‘spikes’ of an instrument that do not reflect the normalized value of an observed parameter.

ii. The Permittee shall maintain all records required by the O&M Plan.

iii. If an ECS is found to be operating outside of the operating limits specified in the O&M Plan, the Permittee shall record the following:

1) The date and time when the ECS was found to be operating outside of its operating limits and the date and time that it returned to operating within its limits.

2) The results of the investigation into the cause of the excursion outside of the operating limits.

3) A description of any corrective actions taken to return the ECS to normal operation. If the ECS returned to normal operation without any actions by the Permittee, that fact shall also be recorded.

[County Rule 210 §302c&d] [Locally enforceable only]

m. MONITORING AND RECORDKEEPING REQUIREMENTS FOR TURBINE ENGINE TEST CELLS:
The Permittee shall keep the following records for each test cell listed in Table 31.2:

i. The date, duration, fuel usage and type of engine tested on a daily basis.

ii. The Permittee shall calculate the monthly emissions of NO_x and CO for all tests of the turbine engines for each of the following test cells:

1) Test Cell #C-917/817

2) Test Cell #930

3) Test Cell #931

4) Test Cell #941

5) Test Cell #942

6) Test Cell #943

7) Test Cell #944

8) Test Cell #671

These calculations shall be made no later than the end of the following month.
[County Rule 210 § 302.1d] [County Rule 210§ 301.8b(4)] [Locally enforceable only]

iii. The Permittee shall calculate the rolling twelve month total emissions for CO and NO_x for each of the following groups of test cells. These calculations shall be made no later than the last day of the following month:

1) Test Cell #C-917/817

2) Test Cells #930 & #931

3) Test Cells #941 & 942

4) Test Cells #943 & 944

5) Test Cell 671

[County Rule 210 § 302.1d] [County Rule 210§ 301.8b(4)] [Locally enforceable only]

n. MONITORING AND RECORDKEEPING REQUIREMENTS FOR FUEL BURNING EQUIPMENT:

i. The Permittee shall conduct a weekly facility walk-through and observe for visible emissions from the boilers and air heaters. This visible emission observation may be

conducted with the overall facility walkthrough required by Permit Condition in the Facility Wide Monitoring and Recordkeeping Requirements.

[County Rule 300] [County Rule 210 §302.1c] [Locally enforceable only]

ii. Monitoring and Recordkeeping Requirements for Fuel Burning Equipment:

1) The Permittee shall record for each affected boiler the type of fuel used, amount of fuel used and the days and hours of operation.

[County Rule 323 §501.1] [Locally enforceable only]

2) The Permittee shall record the date that any tuning procedure was performed on the particular unit and at a minimum: stack gas temperature, flame conditions, nature of the adjustment and results of the nitrogen oxide and carbon monoxide concentrations obtained by using a handheld monitor after each adjustment.

[County Rule 323 §501.4] [Locally enforceable only]

iii. Two Superior Mohawk Boilers in Building 422 Maintenance Numbers and the Two GasTech Air Heaters located immediately outside Building 204:

1) The Permittee shall monitor for compliance with the Emissions Limitations of these Permit Conditions by taking a monthly reading of the dedicated fuel meter on the Superior Mohawk Boilers in building 422. The readings shall be taken during the first seven days of each calendar month for the previous month of operation. Reading data and date shall be recorded simultaneously with the monitoring. The Permittee shall then calculate and record the rolling twelve month total usage of fuel using the data from the most recent twelve calendar months.

2) The Permittee shall monitor for compliance with the Emissions Limitations of these Permit Conditions by taking a monthly reading of the dedicated fuel meter on the GasTech Air Heaters located immediately outside building 204. The readings shall be taken during the first seven days of each calendar month for the previous month of operation. Reading data and date shall be recorded contemporaneously with the monitoring. The Permittee shall then calculate and record the rolling twelve month total usage of fuel using the data from the most recent twelve calendar months.

[County Rule 210§ 301.8b(4)] [Locally enforceable only]

o. MONITORING AND RECORDKEEPING REQUIREMENTS FOR THE BSVE SYSTEM:
See individual requirements for scenarios in Condition 33 for the BSVE System.

21. FACILITY REPORTING REQUIREMENTS:

a. SEMIANNUAL MONITORING REPORT:
The Permittee shall file semiannual monitoring reports with the Control Officer. The reports shall be sent to the Compliance Division with attention to: Compliance Division Manager. The initial reporting period shall begin on the permit issuance date and shall cover a period of 6 months or less. The second and subsequent reporting periods shall be in 6-month intervals after the end of the initial reporting period. The semiannual monitoring reports shall be filed by the end of the month following the reporting period. The semi-annual monitoring report shall be certified as to its truth, accuracy and completeness by a responsible official in the manner required by County Rule 210 §§301.7 and 305.1(e) and shall contain the following information, at a minimum:

i. Deviation Reporting:

The Permittee shall identify all instances of deviations from the permit requirements in the semi-annual monitoring report. The Permittee shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.

[County Rule 210 §302.1e] [Locally enforceable only]

ii. Visible Emissions:

1) The dates of any week that the required visible emissions observations were not taken, an explanation for the deviation from the monitoring requirement, and a description of any action taken to ensure that future observations are performed, if applicable;

2) The source and location from which visible emissions were observed;

3) Any date which visible emissions were observed;

4) The approximate time of the observation;

5) The name of the observer;

6) A description of any corrective actions taken, if any, to reduce the visible emissions; and

7) If a follow-up reading was required, the opacity of the emissions, a copy of the visual determination of opacity record showing all information required by the Method and any other related information.

[County Rule 210 §302.1e] [Locally enforceable only]

iii. Emissions Calculations:
The Permittee shall include the results of the monthly and the rolling 12-month HAP emissions calculations for each month in the six-month reporting period.

[County Rule 210 §302.1e] [Locally enforceable only]

iv. Reporting for Solvent (dip) Cleaning:
The Permittee shall include the following information in each semiannual monitoring report:

1) The monthly summary of the solvent usage and legal disposal of solvents for the six month semiannual reporting period.

2) A summary of any testing that may have been performed during the period.

[County Rule 210 §302.1.e] [Locally enforceable only]

v. Solvent Use Other Than Dip Cleaning:

1) A summary of the usage records for each solvent and of any testing that may have been performed during the period.

2) This requirement can be combined with “Dip Cleaning” requirements contained within this Permit.

[County Rule 210 §302.1.e] [Locally enforceable only]

vi. Hard Chromium Electroplating reporting requirements are found in Condition 28.

vii. Turbine Engine Test Cells:

1) The Permittee shall provide the rolling twelve month totals of CO and NO_x, including the calculations using the emission factors for each of the following groups of test cells:

a) The emissions from the Test Cell #C-917/817

b) The combined emissions from Test Cell #930 & #931

c) The combined emissions from Test Cells #941 & 942

d) The combined emissions from Test Cells #943 & 944

e) The emissions from the Test Cell #671

[County Rule 210 §302.1e] [Locally enforceable only]

2) If at any time the rolling twelve month total for the following groups of test cells exceed the following emissions, the Permittee shall submit to the Department, new turbine engine specific emission factors or a testing protocol to determine turbine engine specific factors from the effected test cell(s) for approval. This document shall be submitted within 60 days from the day the exceedance was identified.

Table 21.3

Modification	NO_x (tons/year)	CO (tons/year)
Test Cell #C-917 / 817	7.7	68
Test Cells #930 & #931 (combined)	27	68
Test Cells #941 & 942 (combined)	27	68
Test Cells #943 & 944 (combined)	27	68

[County Rule 210 §302.1e] [Locally enforceable only]

viii. Fuel Burning Equipment:

1) Two Superior Mohawk Boilers in Building 422 Maintenance Numbers, 93010039 and 93010038, and the Two GasTech Air Heaters located immediately outside Building 204:

The Permittee shall provide the rolling twelve month emission totals of NO_x, including the calculations using AP-42 emission factors for the following:

a) The rolling twelve month combined emission totals of NO_x for the two Superior Mohawk Boilers in building 422. The report shall include all calculations and use AP-42 emission factors.

b) The rolling twelve month combined emission totals of NO_x for the two GasTech Air Heaters located immediately outside building 204. The report shall include all calculations and use AP-42 emission factors.

[County Rule 210§ 302.1(e)] [Locally enforceable only]

ix. BSVE System:

1) The Permittee shall submit a semi-annual monitoring report, which shall be certified as to its truth, accuracy and completeness by a responsible official in the manner required by County Rule 210 §§301.7 and 305.1(e), and which shall contain the following information, at a minimum, pertaining to the BSVE system.

2) If any unit is found to be operating outside of the operating limits specified in these permit conditions, the Permittee shall record the following:

a) The date and time when any unit was found to be operating outside of its operating limits and the date and time that it returned to operating within its limits.

b) The results of the investigation into the cause of the excursion outside of the operating limits.

c) A description of any corrective actions taken to return the unit to normal operation. If the unit returned to normal operation without any actions by the Permittee, that fact shall also be recorded.

b. ANNUAL COMPLIANCE CERTIFICATION:
The Permittee shall file an annual Compliance Certification for the period January 27 through January 26, of each year, by the end of the month following the reporting period. The Compliance Certification shall be sent to the Compliance Division with attention to: Compliance Division Manager. The Compliance Certification shall include, at least, all the reporting requirements found in Condition 4.b.

[County Rule 210 §305.1(d)] [40 CFR 70.6(c) (5)]

22. GENERAL PERFORMANCE TEST REQUIREMENTS:

a. TESTING REQUIREMENTS:
The Permittee shall conduct performance tests every 5 years (within 58 to 62 months of the previous test) for the following equipment:

[County Rule 200 §309] [County Rule 270 §401] [SIP Rule 27 §A] [40 CFR §60.8(a)]

i. Chrome Scrubber Number 92415005

ii. Testing requirements for the BSVE System thermal oxidizer are found in Condition 33.

b. TESTING CRITERIA:
Performance tests shall be conducted and data reduced in accordance with the test methods and procedures specified in the Test Methods section of this permit condition unless otherwise specified by the Control Officer and/or Administrator. The Control Officer and/or Administrator may specify or approve minor changes in methodology to a reference method, approve the use of an equivalent test method, approve the use of an alternative method that has been determined to be acceptable for demonstrating compliance, or waive the requirement for performance tests because the Permittee has demonstrated by other means that the source is in compliance with the standard.

[County Rule 270 §402] [SIP Rule 27 §B]

c. TEST METHODS:
Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods must be performed, as applicable, during each test run.

[County Rule 270 §301.1] [SIP Rule 27 §B]

d. OPERATING CONDITIONS:
Performance tests shall be conducted under representative operating conditions and all equipment shall be operated during testing in accordance with the most recently approved O&M Plan or according to its operations manual if no O&M Plan is required. The Permittee shall make available to the Control Officer any records necessary to determine appropriate conditions for performance tests. Operations during periods of startup, shutdown, and equipment malfunction shall not constitute representative conditions for performance tests unless otherwise specified in the applicable standard or permit conditions.

[County Rule 270 §403] [40 CFR §60.8(c)]

e. MONITORING REQUIREMENTS:
The Permittee shall record all process and control equipment information that are necessary to

document operating conditions during the test and explain why the conditions represent normal operation. Operational parameters shall be monitored and recorded at least once every 30 minutes during each of the required test runs and documented in the test report. The operational parameters monitored shall be capable of indicating that the equipment is operating within the permitted limits, both during and after the performance tests.

[County Rule 270 §301.1] [SIP Rule 27 §B]

f. TEST PROTOCOL SUBMITTAL:
The Permittee shall submit a separate test protocol for each performance test to the Department for review and approval at least 30 days prior to each performance test unless otherwise specified in the applicable standard or in this permit. The test protocol shall be prepared in accordance with the most recent version of the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County." A completed copy of the Department's "Test Protocol Submittal Form" shall accompany each test protocol.

[County Rule 270 §301.1] [SIP Rule 27 §B] [40 CFR §60.8(d)]

g. NOTICE OF TESTING:
The Permittee shall notify the Department in writing at least two weeks in advance of the actual date and time of each performance test unless otherwise specified in the applicable standard or in this permit so that the Department may have a representative attend.

[County Rule 270 §404] [40 CFR §60.8(d)]

h. TESTING FACILITIES REQUIRED:
The Permittee shall install any and all sample ports or platforms necessary to conduct the performance tests, provide safe access to any platforms, and provide the necessary utilities for testing equipment.

[County Rule 270 §405] [SIP Rule 42] [40 CFR §60.8(e)]

i. MINIMUM TESTING REQUIREMENTS:
Each performance test shall consist of three separate test runs with each test run being at least one hour in duration unless otherwise specified in the applicable standard or in this permit. The same test methods shall be used simultaneously for both the inlet and outlet measurements, if applicable, or justification for any necessary exceptions shall be provided in the test protocol. Emissions rates, concentrations, grain loadings, and/or efficiencies shall be determined as the arithmetic average of the values determined for each individual test run. Performance tests may only be stopped for good cause, which includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of a performance test without good cause after the first test run has commenced shall constitute a failure of the performance test.

[County Rule 270 §406] [40 CFR §60.8(f)]

j. TEST REPORT SUBMITTAL:
The Permittee shall complete and submit a separate test report for each performance test to the Department within 45 days after the completion of testing unless otherwise specified in the applicable standard or in this permit. The test report shall be prepared in accordance with the most recent version of the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County." A completed copy of the Department's "Test Report Submittal Form" shall accompany each test report.

[County Rule 270 §301.1] [SIP Rule 27 §B]

k. COMPLIANCE WITH EMISSION LIMITS:
Compliance with allowable emission limits and standards shall be determined by the performance tests specified in this permit. If test results do not demonstrate compliance with the requirements of these permit conditions, the Permittee shall make the necessary repairs

and/or adjustments to the equipment and demonstrate compliance through retesting. This will not nullify the fact that test results did not demonstrate compliance with the requirements of the permit conditions or nullify any violations that may result from this noncompliance. In addition to compliance demonstrations, test results shall be used for annual emissions inventory purposes if the Permittee is required to complete an emissions inventory survey.

[County Rule 270 §407] [Locally enforceable only]

l. CORRESPONDENCE:
All test extension requests, test protocols, test date notifications, and test reports required by this permit shall be submitted to the Department and addressed to the attention of the Performance Test Evaluation Supervisor.

[County Rule 270 §301.1] [SIP Rule 27 §B]

m. AUTHORITY:
The above testing requirements represent the minimum level of testing to monitor for compliance with the emission limits in this permit. Nothing in this section shall prevent the Control Officer from requiring additional performance testing as deemed necessary to ensure permit compliance and protection of the public health and welfare.

[County Rule 200 §309] [County Rule 270 §402.5] [Locally enforceable only]

23. PARAMETRIC MONITORING REQUIREMENTS:

a. The establishment of parametric ranges as required by O&M Plans for the equipment associated with permit conditions 24, 27, 28, 30, and 33 shall assure that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions. Such range(s) shall reflect the proper operation and maintenance of the control device (and associated capture system), in accordance with applicable design properties, for minimizing emissions over the anticipated range of operating conditions at least to the level required to achieve compliance with the applicable requirements. The reasonable assurance of compliance will be assessed by maintaining performance within the indicator range(s).

b. In the event that a parameter is measured outside the range specified in the plant's O&M Plan, the excursion is not itself a violation of the permit, but the Permittee shall take the actions required by the O&M Plan and affected permit conditions. However, the Permittee is not required to take any further response action if the excursion is found after the required investigation to have occurred for any of the following reasons:

i. A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment; or

ii. The Permittee has determined that the compliance monitoring parameters established in the O&M Plans are technically inappropriate and has previously submitted a request for an O&M Plan revision. O&M Plan changes requested will be considered to be in effect until any requested changes are rejected or approved by the Department; or

iii. An automatic measurement was taken when the process was not operating that shows an out-of-range reading; or

iv. The process has already returned or is returning to operating within "normal" parameters and the excursion does not represent excess emissions, poor maintenance, improper operation, or a pattern of noncompliance.

c. Honeywell shall implement the following within 14 days of an excursion:

i. Submit a description of the excursion and action to be taken concurrently and in the event of a future excursion. The Control Officer must approve in writing any

explanations and plans to curtail any future excursion; or

ii. Excursions from parametric ranges would be reported as deviations in the semiannual monitoring report.

A deviation is not necessarily a violation, so long as it does not indicate excess emissions, poor maintenance, or a pattern of noncompliance; and

The Compliance Certification, when excursions from parametric ranges where the explanation and future action has been approved by the Control Officer, would be considered in continuous compliance.

[County Rule 210§ 302.2]

24. ABRASIVE BLASTING OPERATIONS:

a. Opacity Limitation:
The Permittee shall not discharge into the atmosphere from any abrasive blasting operation any air contaminant for an observation period or periods aggregating more than three minutes in any sixty minute period an opacity equal to or greater than 20 percent. An indicated excess will be considered to have occurred if any cumulative period of 15-second increments totaling more than three minutes within any sixty minute period was in excess of twenty percent opacity. Opacity shall be measured in accordance with EPA Reference Method 9 and the provisions of Rule 312 Section 505.

[Rule 312 §§ 305, 505] [SIP Rule 312 §305]

b. Definitions:
For the purpose of this permit, the following definitions shall apply:

i. Certified Abrasive: An abrasive that has been certified by the California Air Resources Board (CARB). An abrasive purchased during the certified period remains certified for use following its expiration date. A list of CARB-certified abrasives is available at the following:

http://www.arb.ca.gov/ba/certabr/eo/eo.htm

ii. Confined Enclosure: A structure that is used, in whole or in part, for abrasive blasting operations and consists of three or four sides and a roof or cover.

iii. Unconfined Blasting: Any abrasive blasting operation that is not performed in a confined enclosure.

iv. Wind Event: An occurrence when the 60-minute average wind speed is greater than 25 miles per hour.

[Rule 312 §200][Locally Enforceable Only]

c. Exemptions:

i. Sections d through e of this Permit Condition do not apply to the following:

1) Self-contained, enclosed abrasive blasting equipment that is not vented to the atmosphere or is vented inside a building with the exhaust directed away from any opening to the building exterior, or;

2) Hydroblasting, in which pressurized liquid is used as the propelling force.

[Rule 312 §103][Locally Enforceable Only]

ii. Section e of this Permit Condition does not apply to equipment that meets the following two criteria and is operated and maintained in accordance with the manufacturer's specifications:

1) Is self-contained and the total internal volume of the blast section is 50 cubic feet or less, and

2) Is vented to an emission control system (ECS).

[Rule 312 §304][Locally Enforceable Only]

d. Requirements for Confined Blasting:

i. Except for hydroblasting, all abrasive blasting operations shall be performed in a confined enclosure.

[Rule 312 §§ 204, 301][Locally Enforceable Only]

ii. Blasting shall be directed away from the open side of the structure.

[Rule 312 §204][Locally Enforceable Only]

iii. Dry abrasive blasting in a confined enclosure with a forced air exhaust shall be conducted by implementing one of the following:

1) Using a certified abrasive,

2) Using steel or iron shot/grit, or

3) Venting to an emission control system (ECS).

[Rule 312 §303][Locally Enforceable Only]

iv. Work Practices:
At the end of the work shift, the Permittee shall clean up spillage, carry-out, and/or trackout of any spent abrasive material with a potential to be transported during a wind event.

[Rule 312 §308.2][Locally Enforceable Only]

e. Requirements for ECS and Monitoring Devices:

i. Operation and Maintenance (O&M) Plan Required for ECS

1) The Permittee shall provide and maintain, readily available at all times, an O&M Plan for any ECS, other emission processing equipment, and ECS monitoring devices that are required by this air pollution control permit.

2) The Permittee shall comply with all the identified actions and schedules provided in each O&M Plan.

ii. Installing and Maintaining ECS Monitoring Devices:
The Permittee, if operating an ECS pursuant to Rule 312, shall properly install and maintain in calibration, in good working order and in operation, devices described in the facility's O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is functioning properly.

[Rule 312 §304][Locally Enforceable Only]

25. SOLVENT (DIP) CLEANING:

a. OPERATIONAL LIMITATIONS:

i. All dip cleaning machines shall be one of the following types:

1) Batch loaded cold cleaners with remote reservoir, or

2) Batch loaded cold cleaners without a remote reservoir (such as a solvent dip tank).

ii. Shall use only low VOC cleaner, or conforming solvent as defined in Condition 25.e. (A

low VOC cleaner is any solution or homogeneous suspension that, as used, contains less than 50 grams of VOC per liter of material (0.42 lb. VOC/gal) or is at least 95% water by weight or volume as determined by an applicable test method in Section 502 of County Rule 331).

iii. The Permittee may use any heated, agitated or non-conforming solvent in its batch cleaning machines as long as the Permittee complies with the requirements in Rule 331 §305.3.

[County Rule 210§ 302.1] [Locally enforceable only]

b. SOLVENT HANDLING REQUIREMENTS:

i. All cleaning solvent, including solvent soaked materials, shall be kept in closed leak-free containers that are opened only when adding or removing material. Rags used for wipe cleaning shall be stored in closed containers when not in use. Each container shall be clearly labeled with its contents.

ii. If a cleaning solvent escapes from a container:

1) Wipe up or otherwise remove immediately if in accessible areas.

2) For areas where access in not feasible during normal production, remove as soon as reasonably possible.

iii. Unless records show that VOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.

[County Rule 331 §301] [SIP Rule 331 §301]

c. EQUIPMENT REQUIREMENTS:

i. The Permittee shall provide a leak-free container (degreaser) for the solvents and the articles being cleaned.

1) The VOC-containment portion shall be impervious to VOC-containing liquid and vapors.

2) No surface of any freeboard required by this rule shall have an opening or duct through which VOC can escape to the atmosphere except as required by OSHA.

[County Rule 331 §302.1] [SIP Rule 331 §302.1]

ii. The Permittee shall maintain and operate all cleaning machine equipment required by this rule and any of its emission controls required by this rule.

[County Rule 331 §302.2] [SIP Rule 331 §302.2]

d. SPECIFIC OPERATING & SIGNAGE REQUIREMENTS:

i. The Permittee shall conform to the following operating requirements when cleaning with cleaning solvents other than low-VOC cleaners:

1) Comfort fans shall not be used near cleaning machines;

2) Do not remove any device designed to cover the solvent unless for processing work in the cleaning machine or maintaining the machine;

3) Drain cleaned parts for at least (15) fifteen seconds after cleaning or until dripping ceases, whichever is later;

4) If using a cleaning solvent spray system:

a) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).

b) Pressure at the orifice from which the solvent emerges shall not exceed ten psig and shall not cause liquid solvent to splash outside the solvent container.

c) In an in-line cleaning machine, a shower type spray is allowed, provided that the spraying is conducted in a totally confined space that is separated from the environment.

d) Exceptions to the foregoing subsections 1), 2), and 3) are provided for in Special Non-vapor Cleaning Situations in the section titled the same below;

5) The Permittee shall not cause agitation of a cleaning solvent in a cleaning machine by sparging with air or other gas. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds fifteen seconds;

6) The Permittee shall not place porous or absorbent materials in or on a cleaning machine. This includes, but is not limited to, cloth, leather, wood, and rope. No object with a sealed wood handle, including a brush, is allowed;

7) The ventilation rate at the cleaning machine shall not exceed 65 cfm per square foot of evaporative surface (20 $m^3/min/m^2$), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a Licensed Professional Engineer experienced in ventilation, to meet health and safety requirements;

8) Limit the vertical speed of mechanical hoists moving parts in and out of the cleaning machine to a maximum of 2.2 inches per second and eleven ft/min (3.3 m/min); and

9) The Permittee shall prevent cross contamination of solvents regulated by Section 304 of Rule 331 with solvents that are not so regulated. Use signs, separated work-areas, or other effective means for this purpose. This includes those spray gun cleaning solvents that are regulated by another rule.

[County Rule 331 §303.1] [SIP Rule 331 §303.1]

ii. When using cleaning solvent, other than low-VOC cleaner, in any solvent cleaning machine (degreaser) or dip tank, the Permittee shall provide the following signage requirements on the machine, or within 3¼ feet (1 meter) of the machine, a permanent, conspicuous label, or placard which includes, at a minimum, each of the following applicable instructions, or its equivalent:

1) "Keep cover closed when parts are not being handled." (This is not required for remote reservoir cleaners.)

2) "Drain parts until they can be removed without dripping."

3) "Do not blow off parts before they have stopped dripping."

4) "Wipe up spills and drips as soon as possible; store used spill rags [or 'wiping material'] in covered container."

5) "Don't leave cloth or any absorbent materials in or on this tank."

6) For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: "Operating instructions can be obtained from _____" where the Permittee shall list a person or place where the instructions are available.

[County Rule 331 §303.2] [SIP Rule 331 §303.2]

e. SOLVENT SPECIFICATION:
All cleaning solvents, except low-VOC cleaners, shall be conforming solvents. A conforming

solvent is one which has a total VOC vapor pressure at 68 ºF (20 ºC) not exceeding one (1) millimeter of mercury column maximum total VOC vapor pressure.

[County Rule 331 §304] [SIP Rule 331 §304]

f. BATCH CLEANING MACHINES:

i. The Permittee shall equip each batch cleaning machine with remote reservoir, including the cabinet type(s), with the following:

1) A sink-like work area or basin which is sloped sufficiently towards the drain so as to prevent pooling of cleaning solvent.

2) A single, unimpeded drain opening or cluster of openings served by a single drain for the cleaning solvent to flow from the sink into the enclosed reservoir. Such opening(s) shall be contained within a contiguous area not larger than 15.5 square inches (100 cm^2).

3) Provide a means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine.

[County Rule 331 §305.1] [SIP Rule 331 §305.1]

ii. The Permittee shall equip each batch cleaning machine without a remote reservoir with all of the following:

1) Have and use an internal drainage rack or other assembly that confines within the freeboard all cleaning solvent dripping from parts and returns it to the hold of the cleaning machine (degreaser).

2) Have an impervious cover which when closed prevents cleaning solvent vapors in the cleaning machine from escaping into the air/atmosphere when not processing work in the cleaning machine. The cover shall be fitted so that in its closed position the cover is between the cleaning solvent and any lip exhaust or other safety vent, except that such position of cover and venting may be altered by an operator for valid concerns of flammability established in writing and certified to by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.

3) The freeboard height shall be no less than 6 inches (15.2 cm). Freeboard height for batch cleaning machines is the vertical distance from the solvent/air interface to the least elevated point of the top rim when the cover is open or removed, measured during idling mode.

4) The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level which conforms to the applicable freeboard requirements.

[County Rule 331 §305.2] [SIP Rule 331 §305.2]

g. SPECIAL NON-VAPOR CLEANING SITUATIONS:

i. Blasting/Misting with Conforming Solvent: Any person blasting or misting with conforming solvent shall operate and equip the device(s) as follows:

1) Equipment: The device shall have internal drainage, a reservoir or sump, and a completely enclosed cleaning chamber, designed so as to prevent any perceptible liquid from emerging from the device; and

2) Operation: The device shall be operated such that there is no perceptible leakage from the device except for incidental drops from drained, removed parts.

[County Rule 331 §307.1] [SIP Rule 331 §307.1]

h. PARTIAL EXEMPTION:
Small Cleaners: The provisions of Sections 303 through 307 of County Rule 315 do not apply to any non-vapor cleaning machine (degreaser) or dip tank fitting either of the following descriptions, except that these shall be covered when work is not being processed:

i. A small cleaner having a liquid surface area of 1 square foot (0.09 square meters) or less, or

ii. A small cleaner having a maximum capacity of one gallon (3.79 liters) or less.

[County Rule 331 § 308.2] [SIP Rule 331 § 308.2]

26. SOLVENT USE OTHER THAN DIP CLEANING:

For purposes of this permit section, the following definitions apply:

Flushing cleaning – Removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component or coating equipment by passing solvent over, into, or through the item being cleaned. The solvent simply may be poured into the item being cleaned and then drained or assisted by air or hydraulic pressure or by pumping. Hand-wipe cleaning operations where wiping, scrubbing, mopping, or other hand actions are used are not included.

Semi-aqueous cleaning solvents – A solvent wherein at least 60% of the solvent solution as applied must be water.

Aqueous and semi-aqueous hand wipe solvents – An aqueous solvent is one in which water is at least 80% of the solvent as applied. A semi-aqueous solvent is one in which at least 60% of the solvent solution as applied must be water.

High Volume Low Pressure (HVLP) Spray Equipment – Spray equipment that is used to apply coating by a spray gun that operates at 10.0 psig of atomizing air pressure or less at the air cap.

VOC composite vapor pressure – The sum of the partial pressures of the compounds defined as VOC's as determined by the calculation provided in Rule 348 §200, No. 288.

Vapor pressure compliant hand-wipe cleaning solvents – Cleaning solvents used in hand-wipe cleaning operations that are aqueous cleaning solvents, or have a VOC composite vapor pressure less than or equal to 45 millimeters of mercury (mmHg) at 20 °C.

[County Rule 348 §200] [Locally enforceable only]

a. OPERATIONAL REQUIREMENTS:
The following requirements apply to solvent cleaning operations:

i. Hand-wipe cleaning: Cleaning solvents used in hand-wipe cleaning operations shall utilize an aqueous cleaning solvent, or have a VOC composite vapor pressure less than or equal to 45 millimeters of mercury (mm Hg) at 20 ºF.

ii. Flush Cleaning: For cleaning solvents used in the flush cleaning of parts, assemblies, and coating unit components, the used cleaning solvent (except semi-aqueous cleaning solvents) must be emptied into an enclosed container or collection system that is kept closed when not in use or captured with wipers, provided they comply with the VOC Containment and Disposal requirements located in this section of the Permit Conditions.

[County Rule 348 §305] [SIP 348 §305]

b. VOC CONTAINMENT AND DISPOSAL:
All fresh and used VOC containing material, including but not limited to cleaning solvents, coatings, thinners, rags, and their residues, shall be stored in closed, leak free, legibly labeled containers when not in use. In addition, the Permittee must implement handling and transfer

procedures to minimize spills during filling and transferring the cleaning solvent to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or used cleaning solvents.

[County Rule 348 §307] [SIP 348 §307]

c. SOLVENT CLEANING EXEMPTIONS:
The following are exempt from the solvent cleaning requirements of County and SIP Rule 348 section 305 and the conditions of this permit that are based on that requirement:

i. Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;

ii. Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g. nitrogen tetroxide, liquid oxygen, hydrazine);

iii. Cleaning and surface activation prior to adhesive bonding;

iv. Cleaning of electronics parts and assemblies containing electronic parts;

v. Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic systems;

vi. Cleaning of fuel cells, fuel tanks, and confined spaces;

vii. Surface cleaning of solar cells, coated optics, and thermal control surfaces;

viii. Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used on the interior of the aircraft;

ix. Cleaning of metallic and nonmetallic materials used to honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;

x. Cleaning of aircraft transparencies, polycarbonate, or glass substrates;

xi. Cleaning and solvent usage associated with research and development, quality control, or laboratory testing;

xii. Cleaning operations using nonflammable liquids conducted within 5 feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections; and

xiii. Cleaning operations identified in an Essential Use Waiver, which has been reviewed and approved by the U.S. EPA and the voting parties of the International Protocol Committee [Sections 604(d)(1) and (g)(2) of the ACT]

[County Rule 348 §308.3] [SIP 348 §308.3]

d. GENERAL EXEMPTIONS:
Cotton-tipped swabs used for very small cleaning operations and aqueous cleaning solvents are exempt from the VOC containment and disposal requirements of Rule 348 section 307 and the conditions of this permit that are based on that requirement.

[County Rule 348 §308.4] [SIP 348 §308.4]

e. COMPLIANCE DETERMINATION:

i. For aqueous and semi-aqueous cleaning solvents, manufacturers' supplied data shall be used to determine the water content.

ii. For hand-wipe cleaning solvents, manufacturers' supplied data or standard engineering reference texts or other equivalent methods shall be used to determine the vapor pressure or VOC composite vapor pressure for blended cleaning solvents.

[County Rule 348 §502.1c] [SIP 348 §502.1c]

27. HARD CHROMIUM ELECTROPLATING 40 CFR PART 63 SUBPART N:

a. OPERATIONAL LIMITATIONS:

i. During tank operation and also apply during periods of startup and shutdown, the Permittee shall control chromium emissions discharged into the atmosphere by not allowing the concentration of total chromium in the exhaust gas stream discharged into the atmosphere to exceed 0.03 mg/dscm ($1.3*10^{-5}$ g./dscf).

[40 CFR 63.342] [County Rule 370 §302.10]

ii. The Permittee shall demonstrate the size of the hard chromium electroplating facility to be designated small by limiting the cumulative rectifier capacity to less than 60 million amp hours per rolling 12-month period.

[40 CFR 63.342] [County Rule 370 §302.10]

b. WORK PRACTICE STANDARDS:

The Permittee is subject to work practice standards, which require completion of an operation and maintenance (O&M) plan that contains the minimum elements of 40 CFR§63.342(f)(3). The work practice standards of this section address operation and maintenance practices. The O&M Plan for the hard chromium electroplating facility is to address process and monitoring parameter ranges, and procedures to implement the applicable work practice standards in 40 CFR Part 63, Subpart N.

i. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain any affected source, including associated packed-bed scrubber and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan.

ii. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.

iii. Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable and independent of emissions limitations or other requirements in relevant standards.

[40 CFR §63.342(f)] [County Rule 370 §302.10]

TABLE 27.1: SUMMARY OF WORK PRACTICE STANDARDS FOR PACKED-BED SCRUBBER

Work Practice Standards	Frequency
1. Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the device	1. 1/quarter
2. Visually inspect ductwork from tank to the control device to ensure there are no leaks	2. 1/quarter
3. Add fresh makeup water to the packed-bed	3. Whenever makeup is needed

40 CFR §63.342(f)] [County Rule 370 §302.10]

c. MONITORING AND RECORDKEEPING REQUIREMENTS FOR HARD CHROMIUM

ELECTROPLATING:

i. The Permittee shall monitor and record the velocity pressure at the inlet to the packed-bed scrubber serving the hard chromium electroplating facility, the inlet pressure, and the pressure drop across that scrubber system once each day that any affected source is operating The Permittee shall record the recirculation water flow rate, blowdown flow rate, visible emission reading once each week that the ECS is required to be in operation. The Permittee shall also note in the log the days when the ECS was not required to be in operation and therefore no readings were required. The observed parametric data value must be normalized to be representative of a stable condition at the time of the reading, (e.g., normalized means a representative value within the range of instrument oscillations). The observations shall exclude instantaneous, sudden movements or 'spikes' of an instrument that do not reflect the normalized value of an observed parameter.

The Permittee shall investigate the cause of any reading outside the range of the O&M plan to identify, correct or repair the problem and record in a log book the cause of the problem and the corrective action initiated to remedy the abnormal reading.

ii. The Permittee shall maintain the following records pertaining to the hard chromium electroplating facility and the packed-bed scrubber:

1) Inspection records for the packed-bed scrubber and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of 40 CFR §63.342 and Table 1 of 40 CFR §63.342 have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during inspection, and any actions taken to correct deficiencies found during the inspection.

2) Records of all maintenance performed on the affected source, the packed-bed scrubber, and monitoring equipment.

3) Records of each occurrence, duration, and cause (if known) of each malfunction of process, packed-bed scrubber, and monitoring equipment.

4) Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan.

5) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by 40 CFR§63.342(f)(3).

6) Test reports documenting results of all performance tests.

7) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance procedures of 40 CFR§63.344(e).

8) Records of monitoring data required by 40 CFR§63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.

9) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, wet scrubber, or monitoring equipment.

10) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control, or monitoring data.

11) The total process operating time of the affected source during the semi-annual reporting period.

12) Records of actual cumulative rectifier capacity of hard chromium electroplating tanks at a facility expended during each month of the reporting period, and the total capacity expended to date for a reporting period.

13) All documentation supporting the notifications and reports required by 40 CFR§ 63.9 and §63.10

14) All records shall be maintained for a period of 5 years in accordance with 40 CFR§63.10(b)(1).

[40 CFR §63.346(b)] [County Rule 370 §302.10]

d. PERFORMANCE TESTING REQUIREMENTS:
The Permittee shall test the Chrome Scrubber Number 92415005 according to the procedure specified in Condition 22: General Performance Testing Requirements.

e. REPORTING REQUIREMENTS:

i. Ongoing compliance status reports:

1) The Permittee shall submit a summary report to the Control Officer to document the ongoing compliance status of the affected source. The report shall contain the following information and shall be submitted semiannually:

a) The company name and address of the affected source;

b) An identification of the operating parameter that is monitored (actual cumulative rectifier capacity) for compliance determination, as required by 40 CFR§63.343(c);

c) The relevant emission limitation for the affected source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of compliance status required by the requirements of the 40 CFR §63.346(b);

d) The beginning and ending dates of the reporting period;

e) A description of the type of process performed in the affected source;

f) The total operating time of the affected source during the reporting period;

g) The actual cumulative rectifier capacity expended during the reporting period, on a month-by-month basis;

h) A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to the process upsets, control equipment malfunctions, other known causes, and unknown causes;

i) A certification by a responsible official as defined in 40 CFR§63.2, that the

work practice standards in 40 CFR§63.342(f) were followed in accordance with the operation and maintenance plan for the source;

j) If the operation and maintenance plan required by 40 CFR§63.342(f)(3) was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the report(s) required by 40 CFR§63.342(f)(3)(iv) documenting that the operation and maintenance plan was not followed;

k) A description of any changes in monitoring, processes, or controls since the last reporting period;

l) The name, title and signature of the responsible official who is certifying the accuracy of the report; and

m) The date of the report.

2) Exceptions to the ongoing compliance reports specified in the "Ongoing compliance status reports", required by this section of the Permit Condition are as follows:

a) The Control Officer or the Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

b) The monitoring data collected by the Permittee in accordance with 40 CFR§343(c) show that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once the Permittee reports an exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency is approved.

[40 CFR §63.347(g)] [County Rule 370 §302.10]

f. OPERATION AND MAINTENANCE PLANS:
The Permittee must have on file with the Department an approved O&M Plan for the packed-bed scrubber to control Chromium emissions.

[40 CFR §63.342(f)] [County Rule 370 §302.10]

28. VOLATILE ORGANIC LIQUID (VOL) STORAGE TANKS:

a. OPERATIONAL LIMITATIONS:

i. The Permittee cannot store any volatile organic liquid (VOL) that has a true vapor pressure greater or equal to 27.6 kPa (207 mmHg) in any storage vessel greater than 75 m^3.

[40 CFR 60 §110b][County Rule 360 §301.17]

ii. The Permittee shall not transport any VOL that has a true vapor pressure greater than 1.5 psia, (10.3 kPa), in a delivery vessel.

[County Rule 210 §302.1b] [Locally enforceable only]

iii. The Permittee shall limit annual throughput of methanol in the Building 422 underground methanol tank to less than 88,301 gallons methanol per year. Usage calculations shall be made monthly and assessed on a rolling twelve month basis.

[County Rule 210 §302.1b] [Locally enforceable only]

29. 40 CFR PART 63 SUBPART WWWWWW: PLATING OPERATIONS OTHER THAN CHROME PLATING:

a. OPERATIONAL LIMITATIONS:

i. The Permittee shall vent the exhaust gases from the acid baths to the ECSs without bypass.

ii. If an ECS is found to be operating outside of the operating limits specified in the most recently submitted O&M Plan, the Permittee shall investigate and take corrective action necessary to bring the ECS back into proper operation.

[County Rule 210 §302.1b] [Locally enforceable only]

b. SPECIFIC MONITORING REQUIREMENTS:
Building 422 Ammonia Scrubber (92415026):

The Permittee shall record the scrubber pressure drop, scrubber liquid recirculation rate and scrubber liquid pH level in accordance with the currently approved O&M Plan.

c. MANAGEMENT PRACTICES:
The Permittee shall implement the applicable management practices of this section, as practicable. The applicable management practices shall be implemented during all times that the electroless plating tank or process is in operation.

i. Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.

ii. Maximize the draining of bath solution back into the tank, as practicable, by extending drip time when removing parts from the tank; using drain boards (also known as drip shields); or withdrawing parts slowly from the tank, as practicable.

iii. Optimize the design of barrels, racks, and parts to minimize dragout of bath solution (such as by using slotted barrels and tilted racks, or by designing parts with flow-through holes to allow the tank solution to drip back into the tank), as practicable.

iv. Use tank covers, if already owned and available at the facility, whenever practicable.

v. Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).

vi. Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources, as practicable.

vii. Minimize bath contamination, such as through the prevention or quick recovery of dropped parts, use of distilled/de-ionized water, water filtration, pre-cleaning of parts to be plated, and thorough rinsing of pre-treated parts to be plated, as practicable.

viii. Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.

ix. Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.

x. Minimize spills and overflow of tanks, as practicable.

xi. Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.

xii. Perform regular inspections to identify leaks and other opportunities for pollution prevention.

[40 CFR § 63.11507(g)]

d. Standards: Electrolytic Plating without Cyanide (see equipment list for specific tanks):
The Permittee shall operate their Tanks according to any one of the following requirements, (i),

(ii), or (iii):

i. The Permittee shall use a wetting agent/fume suppressant in the bath of the tank according to the following requirements:

1) Initially add the wetting agent/fume suppressant in the amounts recommended by the manufacturer for the specific type of electrolytic process; and

2) Add the wetting agent/fume suppressant in proportion to the other bath chemistry ingredients that are added to replenish the tank bath, as the original make-up of the tank;

3) If a wetting agent/fume suppressant is included in the electrolytic process bath chemicals used in the affected tank according to the manufacturer's instructions, it is not necessary to add additional wetting agent/fume suppressant to the tank to comply with this permit condition.

[40 CFR §63.11507(a)(1)]

ii. The Permittee shall capture and exhaust emissions from the affected tank to any one of the following emission control devices: composite mesh pad, packed-bed scrubber, or mesh pad mist eliminators, according to the following

1) Operate all capture and control devices according to the manufacturer's specifications and operating instructions.

2) Keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

[40 CFR §63.11507(a)(2)]

iii. The Permittee shall cover the tank surface according to the following requirements:

1) For batch electrolytic process tanks, use a tank cover over all the effective surface area of the tank for at least 95% of the electrolytic process operating time.

2) For continuous electrolytic process tanks (also called reel-to-reel electroplating), use a cover at least 75% of the surface of the tank whenever the electrolytic process tank is in operation.

[40 CFR §63.11507(a)(3)]

e. Standards: Dry Mechanical Polishing Equipment
The Permittee shall vent their dry mechanical polishing equipment to a capture system that captures particulate matter (PM) emissions from the dry mechanical polishing process and transports the emissions to a cartridge, fabric, or high efficiency particulate air (HEPA) filter, according to the following requirements:

[40 CFR §63.11507(e)]

i. Operate all capture and control devices in accordance with the manufacturer's specifications and operating instructions.

[40 CFR §63.11507(e)(1)]

ii. Keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

[40 CFR §63.11507(e)(2)]

f. Annual Certification of Compliance Report:

i. The owner and operator of an affected source shall prepare an annual certification of compliance report. These reports do not need to be submitted unless a deviation from the requirements of this subpart has occurred during the reporting year, in which case, the

annual compliance report must be submitted along with the deviation report.

ii. Each annual compliance report must be prepared no later than January 31 of the year immediately following the reporting period and kept in a readily-accessible location for inspector review. If a deviation has occurred during the year, each annual compliance report must be submitted along with the deviation report, and postmarked or delivered no later than January 31 of the year immediately following the reporting period.

iii. The Annual Certification of Compliance Report shall contain a statement that the Permittee has implemented the applicable management practices, as practicable.

[40 CFR § 63.11509(c)]

g. Deviation Report:
If any deviations from the compliance requirements specified in this Permit occurred during the year, the Permittee shall report the deviations, along with the corrective action taken to the Control Officer.

[40 CFR § 63.11509(d)]

h. Notifications and reports shall be submitted to both of the following agencies:

i. Maricopa County Air Quality Department, Attn: Compliance Division Manager, 1001 N. Central Ave., Suite 125 Phoenix, Arizona 85004-1944

ii. Environmental Protection Agency, Region 9 (AIR-1), 75 Hawthorne St., San Francisco, CA 94105

i. Recordkeeping:
The Permittee shall keep the following records for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Record shall be kept onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee may keep the records offsite for the remaining 3 years.

i. A copy of any Initial Notification and Notification of Compliance Status that were submitted and all documentation supporting those notifications.

ii. The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards.

iii. The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment.

iv. All required maintenance performed on the air pollution control and monitoring equipment.

v. The records required to show continuous compliance with each management practice as applicable.

vi. Records showing compliance with any fume suppressant/wetting agent being used. The records shall indicate the process for calculating surface tension and show a continuous record for how the surface tension is monitored. This is not necessary if the Permittee uses Permit Condition 29.d.i as the method of compliance.

vii. Records showing the actual cumulative run time of all short-term or “flash” plating tanks per day.

viii. All manufacturer’s data sheets for any/all of the emission control systems in use at the facility (water curtain, fabric filter, or HEPA filter).

ix. Records showing the pH of any cyanide containing tanks at start-up.

x. A record of the times tanks are operated as short term or flash plating tanks and/or electrolytic polishing tanks, if tanks are used as both. These records shall indicate the compliance method chosen as applicable.

[40 CFR §63.11509(e) - (f)] [Rule 210 §302.2]

30. TURBINE ENGINE TEST CELLS:

a. NSR/PSD SYNTHETIC MINOR LIMITATIONS:

i. The Permittee shall not exceed the limits for each modification set forth in Table 30.1. The limits are a combined total for the modifications that included two test cells where specified.

[County Rules 210§§201, 301.8b(4), 302.1b]

ii. The Permittee shall use the emission factors set forth in Table 31.1 when calculating the emissions for all the test cells including the calculations for the NSR/PSD annual CO and NO_x limits found in Table 30.2.

[County Rule 210 § 302.1b] [Locally enforceable only]

Table 30.1: Test Cell Emission Factors

Pollutant	Emission Factor (lb/MMBtu)
NO_x	0.88
CO	0.0033
VOC	0.00041

Table 30.2: Test Cell Annual NO_x and CO Limits

Modification	Date Modified	NO_x (tons/year)	CO (tons/year)
Test Cell #C-917/817	1999	10.25	90
Test Cells #930 & #931 (combined)	1979	36	90
Test Cells #941 & 942 (combined)	1985	36	90
Test Cells #943 & 944 (combined)	1987	36	90
Test Cell #671	2008	21	17
Modification	Date Modified	NO_x (tons/year)	CO (tons/year)

iii. The Permittee shall use the emission factors set forth in EPA Document; *Locating and Estimating Air Emissions from Sources of Polycyclic Organic Matter* Table 4.11.2-1 PAH Emission Concentrations in Aircraft Turbine Engine Exhaust for HAP calculations and the emission factors in AP-42, Table 3.1-1 for criteria pollutants as listed in Table 31.1 of this section. The VOC emission factor is from AP-42 Table 3.1.-2a.

[County Rule 210 § 302.1b] [Locally enforceable only]

iv. The annual fuel usage limit for Test Cell 671 is 374,400 gallons per year calculated as a twelve month rolling average.

[County Rule 210 § 302.1b] [Locally enforceable only]

31. FUEL BURNING EQUIPMENT:

The effected equipment include all air heaters and boilers listed in the equipment list.

PERMIT CONDITIONS FOR TWO SUPERIOR MOHAWK BOILERS IN BUILDING 422 MAINTENANCE NUMBERS AND THE TWO GAS TECH AIR HEATERS LOCATED IMMEDIATELY OUTSIDE BUILDING 204:

For the purposes of these Permit Conditions the rolling twelve month total allowable emissions shall be calculated monthly using the most recent twelve calendar months:

a. Emission Limitations:

i. The Permittee shall not allow emissions of NO_x from the two Superior Mohawk Boilers in building 422 in excess of 1.1 tons during any rolling twelve month period

ii. The Permittee shall not allow emissions of NO_x from the two GasTech Air Heaters located immediately outside building 204 in excess of 3.2 tons during any rolling twelve month period.

[County Rule 210§ 301.8b(4)] [Locally enforceable only]

b. Operating Conditions:

i. The Permittee shall not use more than 22 x 10^6 ft^3 of natural gas in the combination of the two Superior Mohawk Boilers in building 422 during any rolling twelve month period

ii. The two Superior Mohawk Boilers in building 422 shall not be operated unless the natural gas supply line has a functioning, dedicated, non-resettable usage meter installed and in good operating order.

iii. The Permittee shall not use more than 45.5 x 10^6 ft^3 of natural gas in the combination of the two GasTech Air Heaters located immediately outside building 204 during any rolling twelve month period.

iv. The two GasTech Air Heaters located immediately outside building 204 shall not be operated unless the natural gas supply line has a functioning, dedicated, non-resettable usage meter installed and in good operating order.

[County Rule 210§301.8b (4)] [Locally enforceable only]

32. BIOLOGICALLY ENHANCED SOIL VAPOR EXTRACTION SYSTEM:

a. GENERAL OPERATIONAL LIMITATIONS:

i. For all Alternate Operating Scenarios (AOS), the Biologically Enhanced Soil Vapor Extraction (BSVE) system shall be constructed and operated with all the required equipment described in Appendix A-2. All equipment shall be operated according to the requirements of this permit whenever soil vapor is extracted. The Permittee shall not deviate from any of the equipment described in Appendix A-2. All equipment shall be installed, maintained, and operated in accordance with this permit and the most recent version of the Operations and Maintenance (O&M) Plan approved in writing by the Control Officer. Changes to the operating parameter ranges specified in Condition 32 for the BSVE system shall require a significant permit revision. An operating day is defined as any day in which air from the BSVE system is released into the atmosphere.

[County Rule 210 §302.1b] [Locally enforceable only]

ii. Permittee shall not store, discard, or dispose of VOC or VOC-containing material in a way intended to cause or allow the evaporation of VOC to the atmosphere. All control measures required by the conditions of this permit shall be taken to prevent such evaporation.

[County Rule 200 §301] [County Rule 210 §302.1k and §405] [County Rule 330 §306] [Locally enforceable only]

iii. The air pollution control equipment associated with the BSVE system shall be fully operational in a manner that will meet applicable emissions standards prior to the

Permittee performing any soil vapor extraction from any monitoring/injection/extraction wells at the facility. Fully operational is defined as the time at which permitted air pollution control equipment listed in Appendix A-2 is capable of operating according to the manufacturers' specifications.

[County Rule 200 §301] [Locally enforceable only]

iv. The BSVE system extracted soil vapor airflow shall be limited to a maximum of 5,300 standard cubic feet per minute (scfm) measured on a two minute average.

[County Rule 200 §301] [Locally enforceable only]

v. When operating in AOS-1 the overall air injection flow rate shall not exceed the extraction soil vapor air flow rate, and at all times the injection flow rate shall be equal to or less than 1,650 scfm measured as a two minute average when operating in AOS-1.

[County Rule 210 §302.1b] [Locally enforceable only]

vi. When the average inlet concentrations of TPH, benzene, and vinyl chloride have been reduced to less than 4,200 µg/L, 9.7 µg/L, and 0.3 µg/L, respectively, and the BSVE system is operating under AOS-4 or AOS-5, there is no restriction on the air injection flow rate.

[County Rule 210 §302.1b] [Locally enforceable only]

vii. The Permittee shall operate the BSVE system under AOS-1 as defined in Section 32.e. of this permit at all times unless one of the approved alternate operating scenarios are implemented as allowed by these permit conditions. Any change from one alternate operating scenario to another must be recorded in the operations log.

[County Rule 210 §302.1k(1) and §403.7] [Locally enforceable only]

viii. Under AOS 4 and 5 the ECS shall achieve, and the Permittee shall demonstrate, in accordance with Section d of this permit condition, an overall VOC removal efficiency of at least 90% or shall achieve a stack exhaust VOC concentration of 10 ppmv or less measured as methane.

[County Rule 210 §302.1b] [County Rule 330 §306] [Locally enforceable only]

b. ALLOWABLE EMISSIONS:

i. The Permittee shall not exceed the emissions in Table 32.1 when operating under any Alternate Operating Scenario, including during changes to different alternate operating scenarios specified in this permit.

[County Rule 210 §302.1b] [Locally enforceable only]

Table 32.1: BSVE System Emission Limits

Pollutant	Emissions (lb/hr)	Emissions (tons/yr)	Emission Calculation Notes
NO_x	0.88	3.86	Note 1,2
CO	0.74	3.24	Note 1,3
SO_2	0.40	1.75	Note 1,4
PM_{10}	0.067	0.29	Note 1,5
VOCs	1.49	6.52	Note 1,6
HF plus HCl	1.0	1.5	Note 1,7
Vinyl Chloride	0.024	0.041	Note 1,8
Benzene	0.23	0.40	Note 1,9
Dioxin/Furans	0.000008 grams/hr	0.068 grams/yr	Note 1,10
Total Hazardous Air Pollutants	2.4	3.89	Note 1,11

[County Rule 210 §302.1b] [Locally enforceable only]

Note 1: Compliance with hourly emission limits shall be determined through stack testing required by this permit. Annual emissions shall be calculated on a rolling twelve (12) month basis.

Note 2: NO_x emissions shall be calculated from the actual supplemental fuel used in the thermal oxidizers multiplied by an emission factor of 100 lbs/MMscf plus the estimated methane entering the system, based on field inlet monitoring and converted to MMscf, multiplied by an emission factor of 100 lbs/MMscf.

Note 3: CO emissions shall be calculated from the actual supplemental fuel used in the thermal oxidizers multiplied by an emission factor of 84 lbs/MMscf plus the estimated methane entering the system, based on field inlet monitoring and converted to MMscf, multiplied by an emission factor of 84 lbs/MMscf.

Note 4: SO_2 emissions shall be calculated from the actual supplemental fuel used in the thermal oxidizer multiplied by an emission factor of 0.6 lbs/MMscf plus the amount of total petroleum hydrocarbons entering system (in lbs/hr) multiplied by an emission factor of 0.000834 (unitless).

Note 5: PM_{10} emissions shall be calculated from the actual supplemental fuel used in the thermal oxidizers multiplied by an emission factor of 7.6 lbs/MMscf plus the estimated methane entering the system, based on field inlet monitoring and converted to MMscf, multiplied by an emission factor of 7.6 lbs/MMscf.

Note 6: When operating under AOS-1 annual VOC emissions shall be calculated from the actual supplemental fuel used in the thermal oxidizers multiplied by an emission factor of 5.5 lbs/MMscf plus the amount of VOCs entering the BSVE system, as reported in the most recent sampling of the BSVE system inlet(s), and first applying the control efficiency determined from the most recent approved performance test (for the thermal oxidizer) and then applying a control efficiency of 70% (for the vapor-phase granular activated carbon (VGAC) vessels) only to the VOCs entering the BSVE system (not the VOCs generated through fuel combustion).

When operating under AOS-4 or AOS-5, VOC emissions shall be calculated from the amount of VOCs entering the BSVE system, as reported in the most recent sampling of the BSVE system inlet(s), and applying the removal efficiency determined during the most recent performance test conducted under AOS-4 or AOS-5, as applicable.

Note 7: HCl and HF emissions shall be calculated from the concentrations measured during the most recent approved performance test multiplied by the monthly run time and average monthly flow rate.

Note 8: Vinyl chloride emissions shall be calculated from the average concentration of the samples analyzed in the most recent month of sampling from the effluent of the first potassium permanganate adsorber (PPA) vessel in series multiplied by the blower run time and average flow rate since the last sampling event.

Note 9: Benzene emissions shall be calculated from the average concentration of the samples analyzed in the most recent month of sampling from the effluent of the first VGAC vessel in series multiplied by the blower run time and average flow rate since the last sampling event.

Note 10: Dioxin/Furan emissions shall be calculated from the most recent approved performance test results, assuming that the results apply from the time of the most recent test until the time of the calculation.

Note 11: Total HAPs emissions shall be calculated by adding the calculated HCl and HF emissions to those VOC emissions that are HAPs.

ii. The Permittee shall not discharge into the ambient air from the exhaust stack any air contaminants, other than uncombined water, in excess of 20% opacity.

[County Rule 300] [Locally enforceable only]

c. MONITORING AND RECORDKEEPING REQUIREMENTS:

i. The Permittee shall maintain copies of the manufacturers' specifications for all equipment identified in the equipment list in Appendix A-2.

[County Rule 210 §302.1b]

ii. The Permittee shall retain records of all required monitoring data and support information on-site for a minimum of five years from the date of the monitoring sample, measurement, report, or application or until the site closure letter is issued by ADEQ, whichever is later. Records older than five years shall be retained in a location chosen by the Permittee.

[County Rule 210 §302.1d(2)] [Locally enforceable only]

iii. The Permittee shall keep a log and record the operating scenario under which the source is operating.

[County Rule 210 §302.1b] [Locally enforceable only]

iv. Any new soil vapor extraction wells shall be sampled within 60 days from the date the new well is capable of supplying the BSVE system. The list of speciated VOCs to be monitored shall be included in the Operations and Maintenance Plan, but at a minimum shall include the VOCs listed in Table 32.2.

Table 32.2: Speciated VOC List

Compound	Compound
1,1,1-Trichloroethane	Dichlorodifluoromethane
1,1,2-Trichlorotrifluoroethane	Ethylbenzene
1,1-Dichloroethane	Methyl Tert-Butyl Ether
1,1-Dichloroethene	Methylene Chloride
1,2-Dichloroethane	Tetrachloroethene
1,4-Dichlorobenzene	Toluene
1,4-Dioxane	Trans-1,2-Dichloroethene
Benzene	Trichloroethene
Carbon Tetrachloride	Trichlorofluoromethane
Chloroethane	Vinyl Chloride
Chloroform	Xylenes, Total
Cis-1,2-Dichloroethene	

[County Rule 210 §302.1k(1)] [Locally enforceable only]

v. The Permittee shall monitor and record the concentrations of TPH, benzene and vinyl chloride at the BSVE system inlet at least monthly. TPH shall be monitored using EPA Method TO-3 and benzene and vinyl chloride shall be monitored using EPA Method TO-15. The recorded values shall be used to determine when a change of operating scenarios is permissible and shall be used to demonstrate whether the qualifying

thresholds associated with AOS-4 or -5 continue to be met when Permittee is operating under one of these scenarios.

vi. The Permittee shall perform weekly visual stack emission checks of the BSVE system during daylight hours, and log these observations as specified in Condition 20.a of this permit. If visible emissions are observed, Permittee shall follow the procedures required by Condition 20.c of this permit.

[County Rule 200 §309] [Locally enforceable only]

vii. The Permittee shall continuously monitor and record the inlet flow rate to the injection manifold.

[County Rule 210 §302.1c(2)] [Locally enforceable only]

viii. The Permittee shall continuously measure and record the quantity of soil vapor entering the BSVE system.

[County Rule 210 §302.1c(2)] [Locally enforceable only]

ix. The Permittee shall install and maintain a temperature recording device with an accuracy of ± 5 ºF to continuously measure and record the process temperature of the thermal oxidizer(s).

[County Rule 210 §302.1d] [Locally enforceable only]

x. The Permittee shall install and maintain a flow measurement device to continuously measure and record the quantity of soil vapor entering the thermal oxidizer(s).

[County Rule 210 §302.1d] [Locally enforceable only]

xi. The supplemental fuel flow rate to each thermal oxidizer shall be continuously recorded.

[County Rule 210 §302.1d] [Locally enforceable only]

xii. Continuous temperature readings shall be performed and recorded for the thermal oxidizer(s), whenever the thermal oxidizer(s) operates.

The Permittee shall log all temperature readings, including the date and time when the reading was taken, the identity of each thermal oxidizer, the name and initials of the person who took the reading (for all manual readings) and any other related information.

[County Rule 210 §302.1c] [Locally enforceable only]

xiii. The Permittee shall comply with all conditions of Condition 32.k. Operation Outside Control Device Operating Parameter Limits or Ranges.

[County Rule 210 §302.1c] [Locally enforceable only]

xiv. The Permittee shall maintain a record from the manufacturer showing the oxidizer(s) meets the requirements of Condition 32.j of this permit.

[County Rule 210 §302.1c] [Locally enforceable only]

xv. The Permittee shall properly install, maintain, and operate devices to continuously monitor the scrubber(s) pressure drop, water recirculation rate, and water level in the scrubber(s). The Permittee shall properly install, maintain, and operate monitoring devices to measure the pH in the scrubber(s) at least once per day.

[County Rule 210 §302.1c] [Locally enforceable only]

xvi. The Permittee shall record the scrubber(s) pressure drop, water recirculation rate, pH and water level at least once per day for each day that the scrubber(s) is in operation.

[County Rule 210 §302.1c] [Locally enforceable only]

xvii. The Permittee shall log all scrubber(s) pressure drop readings, water recirculation rates

and water level, including the date when the reading was taken, the identity of each scrubber, the name and initials of the person who took the reading (for all manual readings) and any other related information.

[County Rule 210 §302.1c] [Locally enforceable only]

xviii. The Permittee shall log all pH readings, including the date when the reading was taken, the identity of each scrubber, the name and initials of the person who took the reading (for all manual readings) and any other related information.

[County Rule 210 §302.1c] [Locally enforceable only]

xix. Inlet and outlet VOC concentrations of each VGAC unit, as propane, shall be measured daily in the field using a photo-ionization detector (PID) or a flame ionization detector (FID). The instrument used shall be calibrated according to manufacturer specifications. The outlet concentration from the first VGAC unit in series shall be used to calculate the outlet mass flow rate (pound per hour). This calculation shall be documented and used, in part, to determine changeout.

[County Rule 210 §302.1c] [Locally enforceable only]

xx. The temperature and relative humidity of the inlet gas to the first VGAC unit shall be monitored and recorded daily.

[County Rule 210 §302.1c] [Locally enforceable only]

xxi. The outlet of the first VGAC unit shall be tested for benzene using EPA Method TO-15 in accordance with the following schedule after initial start-up in AOS-1, AOS-4, and AOS-5:

1) Once per week for the first 3 months of operation.

2) Once every two weeks for the 4^{th} through 6^{th} months of operation.

3) Once per month for every month thereafter.

[County Rule 210 §302.1c] [Locally enforceable only]

xxii. The Permittee shall log all temperature readings, including the date when the reading was taken, the identity of each VGAC unit, the name and initials of the person who took the reading (for all manual readings) and any other related information.

[County Rule 210 §302.1c] [Locally enforceable only]

xxiii. The Permittee shall log all relative humidity readings, including the date when the reading was taken, the identity of each VGAC unit, the name and initials of the person who took the reading and any other related information.

[County Rule 210 §302.1c] [Locally enforceable only]

xxiv. The Permittee shall log all VOC readings and calculations, including the date when the reading was taken, the identity of each VGAC unit, the name and initials of the person who took the reading (for all manual readings) and any other related information.

[County Rule 210 §302.1c] [Locally enforceable only]

xxv. The Permittee shall record all VGAC monitoring results and calculations and shall document each changeout event, including the anticipated and actual changeout date.

[County Rule 210 §302.1c] [Locally enforceable only]

xxvi. The Permittee shall maintain calibration records for the PID or FID used to monitor VOC concentrations.

[County Rule 210 §302.1c] [Locally enforceable only]

xxvii. The outlet of the first PPA unit shall be tested for vinyl chloride using EPA Method TO-15 in accordance with the following schedule after initial start-up in AOS-1 and AOS-4:

1) Once per week for the first 3 months of operation;

2) Once every two weeks for the 4th through 6th months of operation;

3) Once per month for every month thereafter.

[County Rule 210 §302.1c] [Locally enforceable only]

xxviii. The outlet concentration of vinyl chloride from the first PPA unit in series, as determined in Condition 32.c.xxvii of this permit, shall be used to calculate the outlet mass flow rate (pounds per hour). This calculation shall be documented and used, in part, to determine changeout.

[County Rule 210 §302.1c] [Locally enforceable only]

xxix. The Permittee shall record all PPA monitoring results and calculations and shall document each changeout event, including the anticipated and actual changeout date.

[County Rule 210 §302.1c] [Locally enforceable only]

d. PERFORMANCE TEST REQUIREMENTS:

i. Testing Requirements: The Permittee shall conduct performance tests on the following equipment within 60 days after the new applicable equipment has achieved the capability to operate on a sustained basis, whichever occurs last. The testing deadline may be extended by the Control Officer for good cause, but in no case shall the testing deadline, including test report submittal, extend beyond 180 days after the initial startup of the equipment for AOS-1.

[County Rule 200 §309][County Rule 270 §401][SIP Rule 27 §A]
[Arizona Testing Manual for Air Pollutant Emissions]

1) Thermal Oxidizer:

a) The Permittee shall measure VOC concentrations in the thermal oxidizer inlet and exhaust streams to demonstrate a minimum VOC destruction efficiency of 99% by weight. Testing shall be conducted under representative operating conditions, including flow rate, and all equipment shall be operated during testing in accordance with the most recently approved O&M Plan and with the conditions required by this permit. Testing shall be designed to exclude exempt compounds, such as methane, to ensure that the reported results are representative of the true destruction efficiency for regulated VOCs.

[County Rule 270 § 407] [Locally enforceable only]

b) When operating in AOS-1, the VOC destruction efficiency performance test shall be conducted once every 12 calendar months with tests occurring at least 9 months apart or within 30 days of switching back to AOS-1.

[County Rule 270 § 401] [Locally enforceable only]

c) If during the initial or any following approved performance test, the inlet VOC concentration is less than 500 ppmv, in lieu of demonstrating at least 99% destruction efficiency by weight, an outlet concentration of 5 ppmv or less for total VOCs as propane from the exhaust will be acceptable to demonstrate compliance.

[County Rule 270 § 401] [Locally enforceable only]

2) BSVE System

a) The Permittee shall measure the concentration of VOCs at the BSVE stack. Testing shall demonstrate compliance with all applicable VOC emission limits of the Permit Conditions.

[County Rule 270 § 407] [Locally enforceable only]

b) When operating in AOS-4 and AOS-5, the Permittee shall also measure the concentration of VOCs at the BSVE system inlet when the test is conducted at the BSVE stack in Condition 32.d.i.2.a of this permit. Both tests shall be used to demonstrate a minimum VOC removal efficiency of 90% by weight, or a stack VOC exhaust concentration of 10 ppmv or less measured as methane. Testing shall be designed to exclude exempt compounds, such as methane, to ensure that the reported results are representative of the true removal efficiency for regulated VOCs.

[County Rule 270 § 407] [Locally enforceable only]

c) The VOC performance test shall be conducted on the BSVE system once every 12 calendar months with tests occurring at least 9 months apart or within 30 days of switching between alternate operating scenarios, unless a VOC performance test has been performed on that same operating scenario within the previous 9 months. Performance testing must be performed only once per 12 calendar months for each operating scenario that is operated for 30 days or more in a 12-month period.

[County Rule 270 § 401] [Locally enforceable only]

d) The Permittee shall measure the concentrations of dioxins and furans at the BSVE stack. Testing shall demonstrate compliance with all applicable dioxin/furan emission limits of these Permit Conditions.

[County Rule 270 § 407] [Locally enforceable only]

e) When the Permittee is operating under AOS-4 or AOS-5, dioxin/furan performance testing is not required.

[County Rule 270 § 401] [Locally enforceable only]

f) The Permittee shall measure the HCl and HF outlet concentrations at the BSVE stack. Testing shall demonstrate compliance with all applicable HCl and HF emission limits in Table 32-1 of the Permit Conditions.

[County Rule 270 § 407] [Locally enforceable only]

g) When the Permittee is operating under AOS-1, the HCl and HF performance test shall be conducted at the BSVE stack once every 12 calendar months, with tests occurring at least 9 months. Performance testing must be performed only once per 12 calendar months for each operating scenario that is operated for 30 days or more in a 12-month period.

[County Rule 270 § 401] [Locally enforceable only]

h) When the Permittee is operating under AOS-4 or AOS-5, HCl and HF performance testing is not required.

[County Rule 270 § 401] [Locally enforceable only]

ii. Testing Criteria: Performance tests shall be conducted and data reduced in accordance with the test methods and procedures specified in the Test Methods section of this permit condition unless otherwise specified by the Control Officer and/or Administrator. The Control Officer and/or Administrator may specify or approve minor changes in methodology to a reference method, approves the use of an equivalent test method, approve the use of an alternative method that has been determined to be acceptable for

demonstrating compliance, or waive the requirement for performance tests because the Permittee has demonstrated by other means that the source is in compliance with the standard. For NSPS facilities, only EPA has the authority to waive initial testing requirements.

[County Rule 270 §402][SIP Rule 27 §B][40 CFR §60.8(b)]

iii. Test Methods: Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods must be performed, as applicable, during each test run.

[County Rule 270 §301.1][SIP Rule 27 §B]

1) BSVE System:

a) VOC testing shall be conducted on the BSVE system in accordance with EPA Test Method 25A with speciated VOC results. The list of speciated VOCs shall be included in the Operations and Maintenance Plan, but at a minimum shall include the VOCs listed in Table 32-2 in 32.c.iv of this permit. Testing to quantify exempt compounds such as methane and ethane, shall be conducted in accordance with EPA Test Method TO-15.

[County Rule 270 § 402] [Locally enforceable only]

b) The Permittee shall use EPA Method 23 to determine dioxin and furan emissions.

[County Rule 270 § 402] [Locally enforceable only]

c) HCl and HF testing shall be conducted at the stack in accordance with EPA Test Method 26 or 26A.

[County Rule 270 § 402] [Locally enforceable only]

iv. Operating Conditions: Performance tests shall be conducted under representative operating conditions and all equipment shall be operated during testing in accordance with the most recently approved O&M Plan. The Permittee shall make available to the Control Officer any records necessary to determine appropriate conditions for performance tests. Operations during periods of startup, shutdown, and equipment malfunction shall not constitute representative conditions for performance tests unless otherwise specified in the applicable standard or permit conditions.

[County Rule 270 §403] [Locally enforceable only]

v. Monitoring Requirements During Performance Testing: The Permittee shall record all process and control equipment information that are necessary to document operating conditions during the test and explain why the conditions represent normal operation. Operational parameters shall be monitored and recorded at least once every 30 minutes during each of the required test runs and documented in the test report. The operational parameters monitored shall be capable of indicating that the equipment is operating within the permitted limits, both during and after the performance tests.

1) Thermal Oxidizer:
The Permittee shall record the combustion chamber temperature and combustion chamber set-point temperature during the performance test. These and any additional operational parameters shall be identified in the test protocol and recorded during testing.

[County Rule 270 §301.1] [Locally enforceable only]

2) Caustic Scrubber:
The Permittee shall record the caustic scrubber pressure drop, caustic scrubber liquid recirculation rate and caustic scrubber liquid pH level during the performance test. These and any additional operational parameters shall be identified in the test protocol and recorded during testing.

[County Rule 270 §301.1][SIP Rule 27 §B]

vi. Test Protocol Submittal: The Permittee shall submit a separate test protocol for each performance test to the Department for review and approval at least 30 days prior to each performance test. The test protocol shall be prepared in accordance with the most recent version of the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County." A completed copy of the Department's "Test Protocol Submittal Form" shall accompany each test protocol.

[County Rule 270 §301.1][SIP Rule 27 §B]

vii. Notice of Testing: The Permittee shall notify the Department in writing at least two weeks in advance of the actual date and time of each performance test so that the Department may have a representative attend.

[County Rule 270 §404] [Locally enforceable only]

viii. Testing Facilities Required: The Permittee shall install any and all sample ports or platforms necessary to conduct the performance tests, provide safe access to any platforms and provide the necessary utilities for testing equipment.

[County Rule 270 §405][SIP Rule 42]

ix. Minimum Testing Requirements: Each performance test shall consist of three separate test runs with each test run being at least one hour in duration unless otherwise specified in the applicable standard or in this permit. The same test methods shall be conducted simultaneously for both the inlet and outlet measurements or justification for any necessary exceptions shall be provided in the test protocol. Emissions rates, concentrations, grain loadings, and/or efficiencies shall be determined as the arithmetic average of the values determined for each individual test run. Performance tests may only be stopped for good cause, which includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of a performance test without good cause after the first test run has commenced shall constitute a failure of the performance test.

[County Rule 270 §406] [Locally enforceable only]

x. Test Report Submittal: The Permittee shall complete and submit a separate test report for each performance test to the Department within 45 days after the completion of testing. The test report shall be prepared in accordance with the most recent version of the Department's "Air Quality Performance Test Guidelines for Compliance Determinations in Maricopa County." A completed copy of the Department's "Test Report Submittal Form" shall accompany each test report. Note: If circumstances prevent report submission within the required timeframe, Department approval must be requested as soon as possible and a description of the circumstance will be required for evaluation.

[County Rule 270 §301.1][SIP Rule 27 §B]

xi. Compliance with Emission Limits: Compliance with allowable emission limits and standards shall be determined by the performance tests and other requirements specified in this permit. If test results do not demonstrate compliance with the requirements of these permit conditions, the Permittee shall make the necessary repairs and/or

adjustments to the equipment and demonstrate compliance through retesting. This will not nullify the fact that test results did not demonstrate compliance with the requirements of the permit conditions or nullify any violations that may result from this noncompliance. In addition to compliance demonstrations, test results shall be used for annual emissions inventory purposes if the Permittee is required to complete an emissions inventory survey.

[County Rule 270 §407] [Locally enforceable only]

xii. All test extension requests, test protocols, test date notifications, and test reports required by this permit shall be submitted to the Department and addressed to the attention of the Performance Test Evaluation Supervisor.

[County Rule 270 §301.1][SIP Rule 27 §B]

e. ALTERNATE OPERATING SCENARIO 1 (AOS-1)

i. The BSVE system shall operate only with the equipment listed in Appendix A-2 under the "AOS-1" operating scenario.

[County Rule 210 §302.1b] [Locally enforceable only]

ii. Exhaust from the vapor extraction blower shall be completely routed to the thermal oxidizer and associated equipment. The air pollution control equipment associated with the BSVE system (including the thermal oxidizer) shall be fully operational at all times that vapors are being extracted from any of the extraction wells. Fully operational is defined as the point where all permitted pollution control equipment listed in Appendix A-2 under the "AOS-1" operating scenario is capable of operating according to the manufacturers' specifications.

[County Rule 210 §302.1b] [Locally enforceable only]

iii. All-permitted equipment listed in Appendix A-2 under "AOS-1" shall be interlocked so that if one of the listed pieces of equipment shuts down (except the vapor injection blower), the entire BSVE system shuts down.

[County Rule 210 §302.1b] [Locally enforceable only]

iv. The vapor injection blower shall be interlocked with the vapor extraction blowers so that if any one of the extraction blowers shuts down, the vapor injection blower shall be immediately shut down.

[County Rule 210 §302.1b] [Locally enforceable only]

v. The AOS-1 BSVE system shall have a maximum soil vapor airflow capacity of 3,300 scfm measured on a two minute average.

[County Rule 210 §302.1b] [Locally enforceable only]

ALTERNATE OPERATING SCENARIO 4 (AOS-4)

vi. AOS-4 is the operation of AOS-1without the thermal oxidizer(s) and caustic scrubber(s) and with two PPA units. The equipment described in Appendix A-2 under AOS-4 is required and the Permittee shall not deviate from this equipment process setup. All equipment shall be installed, maintained, and operated in accordance with manufacturer's specifications and this permit.

[County Rule 210 §302.1b] [Locally enforceable only]

vii. AOS-4 may be implemented only when the influent monitoring results indicate all of the following:

1) Prior to implementing AOS-4, the BSVE system inlet influent concentration of non-methane and non-ethane TPH over a period of at least six months and

including all monitoring events within the last six months, shall be less than 4,200 µg/L.

2) Prior to implementing AOS-4, the BSVE system inlet influent concentration of benzene over a period of at least six months and including all monitoring events within the last six months, shall be less than 9.7 µg/L.

3) AOS-4 may continue to be implemented as long as the BSVE influent concentrations of TPH and benzene, are less than 4,200 µg/L and 9.7 µg/L, respectively. If influent concentrations of TPH and benzene exceed 4,200 µg/L and 9.7 µg/L, respectively the Permittee shall have 30 operating days to retest, after receiving the results. If the retest value is also above the limit, AOS-4 many not be used and the system must switched to the appropriate AOS.

[County Rule 210 §302.1k] [Locally enforceable only]

viii. All permitted equipment listed in Appendix A-2 under "AOS-4" shall be interlocked so that if one of the listed pieces of equipment shuts down (except the vapor injection blower), the entire BSVE system shuts down.

[County Rule 210 §302.1b] [Locally enforceable only]

ix. The BSVE system extracted soil vapor airflow shall be limited to a maximum of 5,300 scfm measured on a two minute average.

[County Rule 210 §302.1b] [Locally enforceable only]

x. The BSVE system shall operate at an overall VOC removal efficiency of at least 90% or an exhaust VOC concentration of 10 ppmv or less measured as methane.

[County Rule 200 §302.1b] [County Rule 330 §306] [Locally enforceable only]

f. ALTERNATE OPERATING SCENARIO 5 (AOS-5)

i. AOS-5 is the operation of AOS-1 without the thermal oxidizer, caustic scrubber and with either one (1) PPA unit or the removal of both PPA units. All other equipment described in Appendix A-2 under "AOS-5" is required and the Permittee shall not deviate from this equipment process setup. All equipment shall be installed, maintained, and operated in accordance with manufacturer's specifications and this permit.

[County Rule 210 §302.1b] [Locally enforceable only]

ii. AOS-5 may be implemented only when the BSVE system inlet influent monitoring results include all of the following:

1) Prior to implementing AOS-5, the BSVE system inlet influent concentration of non-methane and non-ethane TPH over a period of at least six months and including all monitoring events within the last six months, shall be less than 4,200 µg/L.

2) Prior to implementing AOS-5, the BSVE system inlet influent concentration of benzene over a period of at least six months and including all monitoring events within the last six months, shall be less than 9.7 µg/L.

3) Prior to implementing AOS-5, the BSVE system influent vinyl chloride concentration shall be below the method reporting level over a period of at least six months and including all monitoring events within the last six months.

4) AOS-5 may continue to be implemented as long as the BSVE system inlet influent concentrations of TPH, benzene, and vinyl chloride remain less than 4,200 µg/L, 9.7 µg/L, and the method reporting limit. If BSVE system inlet influent TPH and

benzene concentrations exceed 4,200 µg/L and 9.7 µg/L, respectively and /or BSVE system inlet influent vinyl chloride concentrations exceed the method reporting level, the Permittee shall have 30 operating days to retest, after receiving the results. If the retest value is also above the limit, AOS-5 may not be used and the system must switch to the appropriate AOS.

[County Rule 210 §302.1k] [Locally enforceable only]

iii. All permitted equipment listed in Appendix A-2 under "AOS-5" shall be interlocked so that if one of the listed pieces of equipment shuts down (except the vapor injection blower), the entire BSVE system shuts down.

[County Rule 210 §302.1b] [Locally enforceable only]

iv. The BSVE system extracted soil vapor airflow shall be limited to a maximum of 5,300 scfm measured on a two minute average.

[County Rule 210 §302.1b] [Locally enforceable only]

v. The BSVE system shall operate at an overall VOC removal efficiency of at least 90% or an exhaust VOC concentration of 10ppmv or less measured as methane.

[County Rule 200 §302.1b] [County Rule 330 §306] [Locally enforceable only]

g. OPERATIONAL LIMITATIONS FOR THE THERMAL OXIDIZER(S)

i. The thermal oxidizer shall be operated and maintained in accordance with the requirements of the O&M Plan most recently approved in writing by the Control Officer.

[County Rule 210 §302.1b] [Locally enforceable only]

ii. The Permittee shall implement a combustion temperature set point of 1,500 ^{o}F or higher. A combustion temperature of less than 1,450 ^{o}F which occurs during soil vapor processing is a deviation.

[County Rule 210 §302.1b] [Locally enforceable only]

iii. The Permittee shall use only pipeline quality natural gas as the supplemental fuel in the thermal oxidizer.

[County Rule 210 §302.1b] [40 CFR 72.2] [Locally enforceable only]

iv. The Permittee shall operate the thermal oxidizer such that the exhaust from the thermal oxidizer shall be vented to the caustic scrubber without bypass.

[County Rule 210 §302.1b] [Locally enforceable only]

v. The destruction efficiency of the oxidizer shall be at least 99% by weight as demonstrated during the most recent approved performance test. If, during the most recent approved performance test, the inlet VOC concentration is less than 500 ppmv, an outlet concentration of 5 ppmv or less for total VOCs as propane from the exhaust will be acceptable to demonstrate compliance in lieu of demonstrating the minimum destruction efficiency of 99%.

[County Rule 210 §302.1b] [County Rule 330 §306] [Locally enforceable only]

vi. The thermal oxidizer shall have a minimum residence time of 0.75 seconds at the maximum permitted flow rate specified in Condition 32.e.v of this permit while operating under AOS-1.

[County Rule 210 §302.1b] [Locally enforceable only]

h. OPERATIONAL LIMITATIONS FOR THE SCRUBBER(S)

i. The scrubber shall be operated and maintained in accordance with the requirements of the O&M Plan most recently approved in writing by the Control Officer.

[County Rule 210, §302.1b] [Locally enforceable only]

ii. The scrubber shall be operated at a minimum pH of 6.5 or a minimum pH within 0.5 pH units of the pH used during the most recent approved HCl and HF performance test, whichever is higher.

[County Rule 210, §302.1b] [Locally enforceable only]

iii. The scrubber shall be operated with a minimum set point equal to or greater than the water recirculation flowrate achieved during the most recent performance test which demonstrated compliance. A water recirculation rate which is 90% or less of the minimum set point is a deviation. The water recirculation flowrate shall be maintained above 25 gallons per minute (gpm) at all times.

[County Rule 210 §302.1b] [Locally enforceable only]

iv. The scrubber exhaust shall pass through two vapor-phase granulated activated carbon (VGAC) units connected in series without bypass.

[County Rule 210 §302.1b] [Locally enforceable only]

i. OPERATIONAL LIMITATIONS FOR GRANULATED ACTIVATED CARBON

i. The Permittee shall maintain a minimum of two VGAC units connected in series while operating under AOS-1 with one thermal oxidizer, and shall maintain a minimum of three VGAC units while operating under AOS-4 or AOS-5. The Permittee shall maintain a minimum of two VGAC units connected in series for each thermal oxidizer.

[County Rule 210 §302.1b] [Locally enforceable only]

ii. The VGAC units shall be operated and maintained in accordance with the requirements of the O&M Plan most recently approved in writing by the Control Officer.

[County Rule 210 §302.1b] [Locally enforceable only]

iii. The VGAC units shall be operated at a temperature between 50 and 145 °F and at a relative humidity between 10 and 70 percent.

[County Rule 210 §302.1b] [Locally enforceable only]

iv. Changeout of the lead VGAC unit in series shall be initiated when the benzene concentration between the lead and next VGAC units in series is determined to exceed 3.2 µg/L or when the lead VGAC unit's outlet VOC mass flow rate is equal to the VOC pound-per-hour permit limit in Table 33-1, whichever is earlier. The testing required by this permit, VOC monitoring required in 33.c.xix and 33.c.xxi of this permit and other relevant factors, including the working capacity of the VGAC unit, shall be used to calculate the time the VGAC unit can operate before the threshold is reached.

[County Rule 210 §302.1b] [Locally enforceable only]

v. After changing out the first VGAC unit, the second VGAC unit shall become the first VGAC unit and the new VGAC unit shall become the last unit in the treatment train. During changeout and media sampling activities, the BSVE system shall continue to operate and soil vapor may be temporarily treated in a single VGAC unit (the second VGAC unit). Treatment with a single VGAC unit shall not occur for more than 10 hours in a 60-day period, and shall only occur during VGAC changeout activities or media sampling.

[County Rule 210 §302.1b] [Locally enforceable only]

vi. The exhaust from the VGAC units shall pass through two potassium permanganate units

connected in series without bypass while operating under AOS-1 or AOS-4.

[County Rule 210 §302.1b] [Locally enforceable only]

vii. The exhaust from the VGAC units shall be vented through a single 44-foot high, 2-foot inside diameter exhaust stack or shall pass through a single potassium permanganate unit without bypass when operating under AOS-5. When operating under AOS-1 conditions (i.e. 3,300 scfm), then the stack shall have a conical insert to reduce the diameter to 18 inches.

[County Rule 210 §302.1b] [Locally enforceable only]

viii. The Permittee shall store spent carbon removed from the system in closed containers prior to removal offsite.

[County Rule 210 §302.1c] [Locally enforceable only]

j. OPERATIONAL LIMITATIONS FOR POTASSIUM PERMANGANATE ADSORBERS

i. The Permittee shall maintain a minimum of two potassium permanganate adsorber (PPA) units connected in series for each thermal oxidizer (total of two PPA units for operation under AOS-1). The Permittee shall maintain a minimum of two potassium permanganate adsorber (PPA) units connected in series when operating under AOS-4. A single PPA unit may be operated under AOS-5.

[County Rule 210 §302.1b] [Locally enforceable only]

ii. The PPA unit(s) shall be operated and maintained in accordance with the requirements of the O&M Plan most recently submitted to the Control Officer.

[County Rule 210 §302.1b] [Locally enforceable only]

iii. Changeout of the first PPA unit in series shall be initiated when the vinyl chloride concentration between the two PPA units is determined to exceed 0.33 µg/L, or when the first PPA unit's outlet vinyl chloride mass flow rate is equal to the vinyl chloride pound-per-hour permit limit in Table 31-1, whichever is earlier. The testing required by this permit, including the vinyl chloride monitoring required in 32.c.xxviii of this permit and other relevant factors, including the working capacity of the PPA unit, shall be used to calculate the time the PPA unit can operate before the threshold is reached.

[County Rule 210 §302.1b] [Locally enforceable only]

iv. After changing out the first PPA unit, the second PPA unit shall become the first PPA unit and the new PPA unit shall become the second PPA unit in the treatment train. During changeout and media sampling activities, the BSVE system shall continue to operate and soil vapor may be temporarily treated in a single PPA unit (the second PPA unit). Treatment with a single PPA unit shall not occur for more than 10 hours in a 60-day period, and shall only occur during PPA changeout and media sampling activities.

[County Rule 210 §302.1b] [Locally enforceable only]

v. The exhaust from the PPA unit(s) shall be vented through a single 44 foot high, 2 foot inside diameter exhaust stack when operating under AOS-4 and AOS-5. The exhaust from the PPA units shall be vented through a single 44 foot high, 2 foot inside diameter exhaust stack with a conical insert to reduce the diameter to 18 inches when operating under AOS-1 conditions (i.e. 3,300 scfm).

[County Rule 210 §302.1b] [Locally enforceable only]

vi. The Permittee shall store spent potassium permanganate removed from the system in closed containers prior to removal offsite.

[County Rule 210 §302.1c] [Locally enforceable only]

k. OPERATION OUTSIDE CONTROL DEVICE OPERATING PARAMETER LIMITS OR RANGES

i. The Permittee shall investigate the cause of any measurement outside a control device operating parameter limit or range specified in these conditions or the O & M Plan and shall restore operation of the control device to its normal and usual manner of operation within the operating parameter range as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

Deviations shall be reported in accordance with the deviation reporting section of the general conditions of this permit.

If the information from the investigation indicates the deviation in reading is due to instrumentation error, the deviation report shall include the date and time of the faulty reading, faulty instrumentation and maintenance and/or repair to be performed.

ii. If the duration of operation outside an operating limit or range exceeds 5 percent of a unit's total operating time during the reporting period specified in 21.a, the Control Officer may require the Permittee to submit a Quality Improvement Plan that meets the requirements of 40 CFR 64.8.

iii. If the Permittee or the Control Officer determines that a control device operating parameter limit or range specified in this permit is not representative of normal and usual operation, the Permittee shall submit a significant permit revision to revise the operating parameter range. At the time of submittal of the permit revision, the Permittee shall submit a revision to the associated O&M Plan if appropriate. The O&M Plan revision and the permit revision application shall include a demonstration (e.g., engineering calculations with the basis of such calculations, approved performance test data, other testing/sampling data, etc.) that the associated emission limit(s) and/or control efficiency can be met at the proposed operating range.

iv. Operation outside the parametric limits in this permit or in an approved O&M Plan may be evidence of excess emissions, poor maintenance, instrumentation error or improper operation of the equipment as indicated in the findings of the above investigation.

33. 40 CFR 63 SUBPART ZZZZ: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR INTERNAL COMBUSTION ENGINES (ICE):

These Conditions apply to the following engine(s):
Onan Electric Generator Set S/N F7601338091
Generac Diesel Generator S/N 697372
Kohler Generator Set S/N 137512A5-29.51-53
Generac Generator S/N 2037195
Generac Generator S/N 2061439
Generac Generator S/N 2056666
Cummins Generator S/N J020432126
Cummins Generator S/N A030459905

a. COMPLIANCE DATES:
The Permittee shall ensure compliance with all applicable requirements of MACT Subpart ZZZZ (40 CFR §63.6580 - §63.6675) and Permit Conditions 33.c, 33.d, 33.e, 33.h.vi and 33.i.ii by the following dates:

i. All emergency CI engines constructed or reconstructed before June 12, 2006 shall comply no later than May 3, 2013.

ii. All emergency CI engines constructed or reconstructed on or after June 12, 2006 shall

comply no later than January 18, 2008 or upon startup, whichever is later.

[40 CFR §63.6595]

b. GENERAL COMPLIANCE REQUIREMENTS:
The Permittee shall operate and maintain all reciprocating compression-ignition (CI) engines and associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR §63.6605]

c. OPERATING REQUIREMENTS:
The Permittee shall meet the following operating requirements, except during periods of startup:

i. Change oil and filter or perform an Oil Analysis Program every 500 hours of operation or annually, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The limits for these parameters are as follows:

1) Total Base Number is less than 30 percent of the Total Base Number of the oil when new;

2) Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or

3) Percent water content (by volume) is greater than 0.5.

If none of these limits are exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil before continuing to use the engine. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and

iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

iv. During periods of startup the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

v. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the maintenance operations above on the schedule required by this Condition or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

[40 CFR §63.6603(a); Table 2d(4)]

d. WORK AND MANAGEMENT PRACTICES:
The Permittee shall comply with one of the following work/management practices:

i. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR §63.6640(a); Table 6(9)]

e. MONITORING:
The Permittee shall install a non-resettable hour meter prior to startup of the emergency engine. The Permittee shall not operate the emergency engine(s) unless its cumulative run time meter is installed and working properly.

[County Rule 210 §302.4]

f. OPERATING LIMITATIONS:

i. The Permittee shall limit the operation of the emergency engine(s) to no more than 100 hours each per calendar year for the purposes of maintenance checks and readiness testing.

[County Rule 324 §§104.5, 205]

ii. The Permittee shall limit the total hours of operation of the emergency engine(s) to no more than 500 hours each per any twelve consecutive months including the 100 hours listed above. The daily trigger of Best Available Control Technology (BACT) has been exempted for emergency engine(s).

[County Rule 210 §302.1]

iii. The emergency engines(s) shall not be used for peak shaving. The emergency engine(s) shall only be used for the following purposes:

1) For power when normal power service fails from the serving utility or if onsite electrical transmission or onsite power generation equipment fails;

2) Reliability-related activities such as engine readiness, calibration, or maintenance or to prevent the occurrence of an unsafe condition during electrical system maintenance;

[County Rule 324 §104]

iv. The Permittee may not use any fuel that contains more than 0.05% sulfur by weight, alone or in combination with other fuels.

[County Rule 324 §301.1]

g. OPACITY:

i. The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.

ii. Compliance with visible emissions shall be determined using the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A.

[County Rule 324 §§303, 503.8]

h. RECORDKEEPING:
The Permittee shall maintain the following records for each engine for a period of at least five years from the date of the records and make them available to the Control Officer upon request:

i. An initial one time entry listing the particular engine combustion type (compression or

spark-ignition or rich or lean burn); manufacturer; model designation, rated brake horsepower, serial number and where the engine is located on the site.

[County Rule 324 §502.1; County Rule 210 §302.1]

ii. An annual engine record that includes hours of operation and an explanation for use.

[County Rule 324 §502.4; County Rule 210 §302.1]

iii. Monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.

[County Rule 210 §302.1]

iv. A copy of engine manufacturer data indicating compliance with the standards in this Permit for each compression ignition engine, and shall make the documentation available to MCAQD upon request.

[County Rule 210 §302.1]

v. A copy of the emergency engine manufacturer's written instructions, or procedures developed by the Permittee that are approved by the engine manufacturer, shall be kept onsite and made available to MCAQD upon request.

[County Rule 210 §302.1]

vi. To demonstrate the required management practices of Condition 33.c are being met, the Permittee shall maintain records which must include, at a minimum. The following:

1) Oil and filter change dates and corresponding hour on the hour meter;

2) Inspection and replacement dates for air cleaners, hoses, and belts; and

3) Records of other emission-related repairs and maintenance performed.

[40 CFR §63.6655(e)(2)] [40 CFR §63.6660]

i. REPORTING:
The Permittee shall comply with the following:

i. Low Sulfur Oil Verification:
If the Control Officer requests proof of the sulfur content of fuel burned in the engine(s), the Permittee shall submit fuel receipts, contract specifications, pipeline meter tickets, Safety Data Sheets (SDS), fuel supplier information or purchase records, if applicable, from the fuel supplier, indicating the sulfur content of the fuel oil. In lieu of these, testing of the fuel oil for sulfur content to meet the applicable sulfur limit shall be permitted if so desired by the owner or operator for evidence of compliance.

[County Rule 210 §302.1, County Rule 324 §501.4]

ii. Deviations from Maintenance Schedule:
Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. The Report shall be submitted to the Control Officer, Attn: Compliance Division Manager, within 2 days after the date on which the maintenance operation was required to be performed. A subsequent report shall be submitted to the Control Officer within 2 days after the required maintenance operation is performed.

[Rule 210 §302.1] [40 CFR §63.6640(b)]

Appendix A: Equipment List

Abrasive Blasting

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Inside Volume	Verified Location
DFH Sand Blaster	Unknown	Unknown	202	92403030	64	1-D21
DFH Glass bead Blaster	Unknown	2/1/1979	202	92403001	28	1-D21
DFH Sand Blaster	Unknown	8/1/1983	202	92403018	23	1-D21
ICM Glass bead blaster	Unknown	Unknown	422	92403056	48	1-HH116
ICM Bead blaster	Unknown	Unknown	422	92403055	48	1-II116
ICM sand blaster	Unknown	Unknown	422	92403054	48	1-HH116
Panghorn Sand Blaster	Unknown	Unknown	422	92403011	38	1-GG116
Panghorn Sand Blaster	Unknown	8/1/1981	422	92403033	38	1-HH116
Wet Sand Blast	Unknown	Unknown	422	92403084	24	1-GG116
TRINCO DRY BLAST	Unknown	Unknown	129	92403085	4	1-CC77

Abrasive Blasting--Rotoclones,Cyclones, Dust Collectors

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Gas Air Flow (cfm)	
Sulzer Metco Dust Collector	Unknown	Unknown	103	92401028	8000	West side of 103
Farr Tenkay Dust Collector	Unknown	3/4/1994	301	92401463	1100	1-BB10
Tenkay Dust Collecter	Unknown	Unknown	202	92401472	1514	1-F21
Donaldson Dust Collector	Unknown	Unknown	422	92401825	1500	Outside west of 422
AAF Rotoclone	Unknown	Unknown	301	92401443	1000	south side of 301

Solvent (Dip) Cleaning

Degreasing Operations/Tanks

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Tank Size (L*W*D)	Current Location
JUSTRITE STODDARD TANK # 121	Unknown	Unknown	403	94701269	24 x 16 x 9	1-F114
JUSTRITE STODDARD TANK # 128	Unknown	Unknown	103	94701273	15 x 15.5 x 15	1-DD101
JUSTRITE STODDARD TANK # 185	Unknown	Unknown	403	94701287	15 x 15.5 x 15	1-D110
JUSTRITE STODDARD TANK # 194	Unknown	Unknown	103	94701290	15 x 15.5 x 15	1-FF97
STODDARD SOLVENT PARTS WASHER #200	Unknown	Unknown	103	92414047	17x26x16	1-FF102
DIP TANK STODDARD TANK	Unknown	Unknown	103	94701327	16.5 x 35 x 12	1-DD90
DIP TANK STODDARD TANK # 13	Unknown	Unknown	103	94701328	16.5 x 35 x 12	1-HH92
DIP TANK STODDARD TANK # 14	Unknown	Unknown	103	94701329	16.5 x 35 x 12	1-DD101
DIP TANK STODDARD TANK # 17	Unknown	Unknown	103	94701330	16.5 x 35 x 12	1-LL96
DIP TANK STODDARD TANK # 26	Unknown	Unknown	103	94701332	16.5 x 35 x 12	1-FF98
DIP TANK STODDARD TANK # 33	Unknown	Unknown	103	94701333	16.5 x 35 x 12	1-DD101
DIP TANK STODDARD TANK # 37	Unknown	Unknown	103	94701334	16.5 x 35 x 12	1-DD92
DIP TANK STODDARD TANK # 47	Unknown	Unknown	103	94701336	16.5 x 35 x 12	1-EE95
DIP TANK STODDARD TANK # 55	Unknown	Unknown	103	94701337	24x31x24	1-CC98

DIP TANK STODDARD TANK # 56	Unknown	Unknown	103	94701338	24x31x24	1-CC98
DIP TANK STODDARD TANK # 69	Unknown	Unknown	103	94701340	16.5 x 35 x 12	1-II95
DIP TANK STODDARD TANK # 70	Unknown	Unknown	103	94701341	16.5 x 35 x 12	1-GG98
DIP TANK STODDARD TANK # 74	Unknown	Unknown	103	94701343	16.5 x 35 x 12	1-FF89
DIP TANK STODDARD TANK # 77	Unknown	Unknown	103	94701344	16.5 x 35 x 12	1-II97
DIP TANK STODDARD TANK # 82	Unknown	Unknown	103	94701345	16.5 x 35 x 12	2-KK98
DIP TANK STODDARD TANK # 152	Unknown	Unknown	103	94701346	16.5 x35 x 12	1-FF90
DIP TANK STODDARD TANK # 153	Unknown	Unknown	103	94701347	16.5 x35 x 12	
DIP TANK STODDARD TANK # 196	Unknown	Unknown	103	94701348	24x31x24	1-CC98
DIP TANK STODDARD TANK # 198	Unknown	Unknown	103	94701349	16.5 x 35 x 12	1-FF92
JUSTRITE STODDARD TANK # 2	Unknown	Unknown	103	94701351	16.5 x 35 x 12	1-II98
JUSTRITE STODDARD TANK # 4	Unknown	Unknown	103	94701352	16.5 x 24 x 8.5	1-EE94
JUSTRITE STODDARD TANK # 5	Unknown	Unknown	103	94701353	15 x 15.5 x 15	1-II91
JUSTRITE STODDARD TANK # 12	Unknown	Unknown	103	94701355	16.5 x 35 x 12	1-GG98
JUSTRITE STODDARD TANK # 24	Unknown	Unknown	103	94701359	16.5 x 35 x 12	1-KK98
JUSTRITE STODDARD TANK # 28	Unknown	Unknown	103	94701360	15 x 15.5 x 15	1-FF89
JUSTRITE STODDARD TANK # 34	Unknown	Unknown	301	94701363		1-LL17
JUSTRITE STODDARD TANK # 40	Unknown	Unknown	103	94701364	15 x 15.5 x 15	1-EE89
JUSTRITE STODDARD TANK # 61	Unknown	Unknown	103	94701366	16.5 x 24 x 8.5	2-KK95
JUSTRITE STODDARD TANK # 62	Unknown	Unknown	103	94701367	15 x 15.5 x 15	1-FF98
JUSTRITE STODDARD TANK # 78	Unknown	Unknown	103	94701371	16.5 x 35 x 12	1-DD97
JUSTRITE STODDARD TANK	Unknown	Unknown	403	94701372	16.5 x 35 x 12	1-HH93
JUSTRITE STODDARD TANK # 151	Unknown	Unknown	103	94701374	13 x 25 x 9	1-GG93
JUSTRITE STODDARD TANK # 158	Unknown	Unknown	103	94701375	15 x 15.5 x 15	1-II92
JUSTRITE STODDARD TANK # 191	Unknown	Unknown	103	94701376	16.5 x 35 x 12	1-EE92
PROTECTOSEAL STODDARD TANK # 9	Unknown	Unknown	103	94701382	15 x 15.5 x 15	1-EE95
PROTECTOSEAL STODDARD TANK # 10	Unknown	Unknown	103	94701383	16.5 x 24 x 8.5	1-JJ93
PROTECTOSEAL STODDARD TANK # 19	Unknown	Unknown	103	94701384	16.5 x 35 x 12	1-JJ97
PROTECTOSEAL STODDARD TANK # 20	Unknown	Unknown	103	94701385	16.5 x 24 x 8.5	1-EE91
PROTECTOSEAL STODDARD TANK # 27	Unknown	Unknown	103	94701386	16x36x12	1-GG95
PROTECTOSEAL STODDARD TANK # 36	Unknown	Unknown	103	94701388	16.5 x 35 x 12	1-GG101
PROTECTOSEAL STODDARD TANK # 39	Unknown	Unknown	103	94701389	15 x 15.5 x 15	1-HH97
PROTECTOSEAL STODDARD TANK # 41	Unknown	Unknown	103	94701390	16.5 x 35 x 12	1-II91
PROTECTOSEAL STODDARD TANK # 43	Unknown	Unknown	103	94701391	15 x 15.5 x 15	1-DD96
PROTECTOSEAL STODDARD TANK # 49	Unknown	Unknown	103	94701393	16.5 x 35 x 12	1-HH89
PROTECTOSEAL STODDARD TANK # 51	Unknown	Unknown	103	94701394	16.5 x 35 x 12	1-DD94
PROTECTOSEAL STODDARD TANK # 52	Unknown	Unknown	103	94701395	15 x 15.5 x 15	1-DD98
PROTECTOSEAL STODDARD TANK # 53	Unknown	Unknown	103	94701396	15 x 15.5 x 15	1-DD98
PROTECTOSEAL STODDARD TANK # 54	Unknown	Unknown	103	94701397	15 x 15.5 x 15	1-FF94
PROTECTOSEAL STODDARD TANK # 58	Unknown	Unknown	103	94701399	15 x 15.5 x 15	1-KK91
PROTECTOSEAL STODDARD TANK # 59	Unknown	Unknown	103	94701400	15 x 15.5 x 15	1-EE97
PROTECTOSEAL STODDARD TANK # 65	Unknown	Unknown	103	94701401	15 x 15.5 x 15	1-II95
PROTECTOSEAL STODDARD TANK # 197	Unknown	Unknown	103	94701408	15 x 15.5 x 15	1-DD93
PROTECTOSEAL STODDARD TANK	Unknown	Unknown	103	94701420	15 x 15.5 x 15	DD98

JUSTRITE STODDARD TANK	Unknown	Unknown	103	94701427	16 x 15.5 x 15	1-BB94
STODDARD SOLVENT TANK	Unknown	Unknown	301	94701035		1-HH23
GREYMILLS STODDARD TANK # 167	Unknown	Unknown	301	94701304	16.5 x 35 x 12	1-LL20
TPM GLYCOL ETHER TANK	Unknown	Unknown	302	93808112	39 x 28 x 28	
STODDARD SOLVENT TANK	Unknown	Unknown	402	94701049	20x40x17	1-N123
STODDARD SOLVENT TANK	Unknown	Unknown	402	94701050	24x74x24	1-N123
DIP TANK STODDARD TANK # 18	Unknown	Unknown	403	94701331	16.5 x 35 x 12	1-G110
DIP TANK STODDARD TANK # 72	Unknown	Unknown	403	94701342	16.5 x 35 x 12	1-A109
JUSTRITE STODDARD TANK # 32	Unknown	Unknown	103	94701362	16.5 x 35 x 12	South of 103
JUSTRITE STODDARD TANK # 64	Unknown	Unknown	403	94701368	16.5 x 35 x 12	South of 103
JUSTRITE STODDARD TANK # 79	Unknown	Unknown	403	94701372	16.5 x 35 x 12	1-G109
JUSTRITE DIP TANK	Unknown	Unknown	422	94701413	16.5 x 24 x 8.5	1-DD114
JUSTRITE STODDARD TANK	Unknown	Unknown	301	94713004	16 x 15.5 x 15	1-LL20
Solvent Use Other Than Dip Cleaning						
Cold Stoddard Solvent Flush Booths						
Name, Make, Model, Serial #	**Manuf. Date**	**Date Installed**	**Building**	**Maintenance #**	**Capacity (gal)**	**Current Location**
Safety Kleen Model #81 Tag #164	Unknown	Unknown	202	B0000377	74	1-D21
Safety Kleen Model #81 Tag #163 w/Agit	Unknown	Unknown	202	B0000435	74	1-C16
ZEP PARTS WASHER	Unknown	Unknown	301	92406066	30	1-MM19
ZEP PARTS WASHER	Unknown	Unknown	301	92406065	30	1-PP11
PARTS WASHING SYSTEM	Unknown	Unknown	301	92406071	36	1-GG23
ZEP PARTS WASHER STODDARD #220	Unknown	Unknown	301	92406073	30	1-GG25
STODDARD SOLVENT TANK	Unknown	Unknown	301	94701418	30	1-MM19
SOLVENT TANK	Unknown	Unknown	222	92406079	30	1-B45
SOLVENT TANK	Unknown	Unknown	223	92406078	30	1-D40
Spray Coating (non-thermal)						
Paint Booths						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	**Building**	Maintenance #	Max (gal/hr)	
Hard Chrome Electroplating						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Amp-hr/hr / cfm	
Chrome Tank	Unknown	Unknown	422	94903197	60	1-II109
Chromic Sulfuric Acid Copper Strip	Unknown	Unknown	422	94903133	**3x3x3**	1-GG109
Hot DI Rinse	Unknown	Unknown	422	94903190	**3x3x3**	1-II109
Caustic Cleaner	Unknown	Unknown	422	94903191	**3x3x3**	1-II109
Sulfuric Acid Pickle	Unknown	Unknown	422	94903193	**3x3x3**	1-II109
Scrubber #HPV773D	Unknown	9/1/1984	422	92415005	25000 cfm	1-JJ109
Thermal Spray Coating						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Inside Volume	
Thermal Spray-Robot	Unknown	9/1/1997	404	92915065	1341 cu ft	1-C181

Thermal Spray Robot	Unknown	9/1/1997	404	92915067	1227 cu ft	1-C181
Thermal Spray-Robot	Unknown	4/15/1994	114	92915046	1233 cu ft	1-EE46
Thermal Spray Manual Gun	Unknown	Unknown	404	92915086	783 cu ft	1-C181
Thermal Spray-Robot	Unknown	Unknown	404	92915066	501 cu ft	1-C181
Thermal Spray Manual Gun	Unknown	Unknown	114	92915034	1207 cu ft	1-EE46
Thermal Spray-High Vel	Unknown	11/1/1981	114	92915059	1318 cu ft	1-EE45
-	-	-	-	-	-	-
VOL Storage Tanks						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Ground	Maintenance #	Capacity (gal)	
Tank 201N (JP-4)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 202N (Jet-A)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 203N (JP-4)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 204N (Jet-A)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 205N (JP-8)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 206N (Jet-A)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 207N (Jet-A)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 208N (JP-8)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 209N (Jet-A)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 210N (JP-5)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 211N (DF-2)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Tank 212N (mixed fuel)	Unknown	4/1/1986	below	N/A	20,000	Fuel Farm 2
Methanol Tank	Unknown	May, 2002	above	N/A	6,000	1-CC112
Plating Operations Other Than Chrome plating						
Process Tanks						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	**Building**	Maintenance #	**Tank Size (L*W*D)**	
Silver Plate	Unknown	Unknown	422	94903165	**3X3X3**	1-HH112
Silver Plate	Unknown	Unknown	422	94903164	**3X3X3**	1-HH112
Silver Plate	Unknown	Unknown	422	94903166	**3x3x3**	1-HH112
Silver Strike	Unknown	Unknown	422	94903167	**4x3x3**	1-HH112
Copper Strike	Unknown	Unknown	422	94903176	**5x3x3**	1-HH112
Copper Plate	Unknown	Unknown	422	94903178	**6x3x3**	1-HH112
Cyanide Copper Plate Hi-Efficiency	Unknown	Unknown	422	94903179	**6x3x3**	1-HH112
Hot DI Rinse	Unknown	Unknown	422	94903417	**3x3x3**	1-HH111
Sodium Cyanide	Unknown	Unknown	422	94903183	**2x3x3**	1-HH112
Copper Strike (Copper Filters)	Unknown	Unknown	422	94903184	**5x3x3**	1-HH112
Copper Plate	Unknown	Unknown	422	94903186	**6x3x3**	1-HH112
Copper Plate	Unknown	Unknown	422	94903187	**6x3x3**	1-HH110
Nitric Acid	Unknown	Unknown	422	94903414	**3x3x3**	1-II109
Electroless Nickel Plate	Unknown	Unknown	422	94903149	**3x3x3**	1-GG113
Lead Anode Cleaner	Unknown	Unknown	422	94903202	**3x3x3**	1-II109
Oakite Ruststripper	Unknown	Unknown	422	94903204	**3x3x3**	1-II109
Black Oxide	Unknown	Unknown	422	94903206	**3x3x3**	1-II112

Hot Water Rinse	Unknown	Unknown	422	94903207	**3x3x3**	1-II109
Hot Acidified Rinse	Unknown	Unknown	422	94903203	**3x3x3**	1-II109
Nitric Acid	Unknown	Unknown	422	94701172	2x2x2	1-FF109
HCl-Methanol	Unknown	Unknown	422	94701174	2x2x2	1-FF109
Hydrochloric Acid	Unknown	Unknown	422	94903145	3x3x3	1-GG112
Muriatic Acid Pickle	Unknown	Unknown	422	94903172	4x3x3	1-HH112
Alkaline Copper Strip	Unknown	Unknown	422	94903135	3x3x3	1-GG110
Alkaline Copper Strip	Unknown	Unknown	422	94903139	3x3x3	1-GG110
Nitric Acid Strip	Unknown	Unknown	422	94903141	3x3x3	1-GG111
Hydrochloric Acid	Unknown	Unknown	422	94903138	3x3x3	1-GG109
Nickel Chloride Strike (NICl2)	Unknown	Unknown	422	94903174	4x3x3	1-HH112
Secondary Process Tanks						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	**Building**	Maintenance #	Tank Size (L*W*D)	
Actrel 4493 Tank # 91	Unknown	Unknown	422	94903431	4x4x4	
Brulin 815 GD Tank #13	Unknown	Unknown	422	92403038	4x4x3	
Actrel 4493 Tank # 92	Unknown	Unknown	422	94903421	3.5x5x4	
Actrel 4493 Tank # 93	Unknown	Unknown	422	92406039	3x5x3.5	
Actrel 4493 Tank # 94	Unknown	Unknown	422	92406040	3x5x3.5	
Packed Bed Scrubbers						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Gas Air Flow(cfm)	
HPV-77-3D	Unknown	Unknown	422	92415005	-	
HPV-77-2D	Unknown	9/1/1984	422	92415006	20000	1-JJ110
HPV673D	Unknown	9/1/1984	422	92415007	175000	1-JJ113
ECH 33	Unknown	Unknown	422	92415013	4000	R-CC111
ECH56.5-5LB	Unknown	Unknown	422	92415019	16000	R-II114, 1-II114
ECH 5 6.5-5LB	Unknown	Unknown	422	92415020	16000	R-HH108, 1-HH108
F/WR-1/4	Unknown	9/1/2005	422	92415026	750	R-DD110, 1-DD112
Heat Treating Furnaces						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	**Building**	Maintenance #	Tank Size (L*W*D)	
Nitriding Furnace	Unknown	Unknown	422	93007040	Unknown	1-EE109
Quench Oil Tank	Unknown	Unknown	422	93024000	Unknown	**CNL**
Special Nitriding Furnace N1A	Unknown	Unknown	422	93007015	Unknown	gone
Upton Marquench Furnace T-7	Unknown	Unknown	422	93012007	Unknown	1-EE116
Automatic Carburizing Furnace C-3	Unknown	1/1/1991	422	93007045	Unknown	1-EE112
Carburizing furnace	Unknown	before 1984	422	93007051	Unknown	1-EE112
Holocroft Rotary Furnace H-4	Unknown	4/15/1994	422	93007050	Unknown	1-EE115
Air Heaters (natural gas fired)						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Max Cap'y (MM Btu/hr)	

Air Heater	Unknown	Unknown	204	93021027	0.44	
Air Heater	Unknown	Unknown	202	93021015	6.57	
Air heater AH1-A	Unknown	Unknown	204	93021001	3.19	
Air heater AH1-B	Unknown	9/1/1962	203	93021002	5.12	
Air heater AH1-C	Unknown	9/1/1962	203	93021003	2.96	
In line heater for C-100	Unknown	Unknown	203	Unknown	2.945	
Air heater (Test Cell C-100)	Unknown	7/1/1973	204	93021037	10.98	
Air heater (Test C116)	Unknown	6/1/1992	204	93021038	10.98	
Air heater (Raypack)	Unknown	Unknown	222	93100019		
Boilers						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Max Cap'y (MM Btu/hr)	
Natural Gas-fired	Unknown	Unknown	503	93010027	0.35	1-D20
Natural Gas-fired	Unknown	Unknown	403	93020001	0.50	1-Q114
Natural Gas-fired	Unknown	1/1/2001	422	93010039	4.11	1-JJ106
Natural Gas-fired	Unknown	10/1/1999	422	93010038	4.11	1-JJ108
Natural Gas-fired	Unknown	6/1/1994	503	93010026	0.35	1-D20
Natural Gas-fired	Unknown	Unknown	302	93010015	3.28	
Test Cells						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building		Max Thruput (gal/hr)	
#666 C-100	Unknown	1956	203		224	verified
#667 C-113	Unknown	1956	203		0.02 (MMBtu)	verified
#668 C-114	Unknown	1956	203		0.028 (MMBtu)	verified
#669 C-116 Turbine Cell	Unknown	1956	203		224	verified
#671 Compressor Cell	Unknown	1956	226		224.3	verified
#691 LACC I	Unknown	1964	202		76.9	verified
#692 LACC II	Unknown	1955	202		76.9	verified
#694 CA 2	Unknown	1955	202		36.5	verified
#801(D-101) APU Cell	Unknown	1956	204		76.9	verified
#802 (S-102) APU Cell	Unknown	1956	204		76.9	verified
#803 (D-103) APU Cell	Unknown	1956	204		76.9	verified
#804 APU Test Cell	Unknown	Unknown	204		76.9	verified
#805 (D-105) APU Cell	Unknown	1956	204		76.9	verified
#806 (D-106) APU Cell	Unknown	1956	204		76.9	verified
#807 (D-107) APU Cell	Unknown	1956	204		76.9	verified
#808 (D-107E) APU Cell	Unknown	1956	204		76.9	verified
#809 (D-109) APU Cell	Unknown	1956	204		76.9	verified
#810 (D-110) APU Cell	Unknown	1956	204		76.9	verified
#811 (D-111) APU Cell	Unknown	1956	204		76.9	verified
#812 (D-112) APU Cell	Unknown	1956	204		76.9	verified
#813 (D-113) APU Cell	Unknown	1956	204		76.9	verified
#814 (D-114) APU Cell	Unknown	1956	204		76.9	verified

#815 (D-115) APU Cell	Unknown	1956	204		76.9	verified
#819 (124) APU Cell	Unknown	Unknown	124		108.3	verified
#821 (71) APU Cell	Unknown	1952	115		108.3	verified
#822 (72) APU Cell	Unknown	1952	115		108.3	verified
#823 (73) APU Cell	Unknown	1952	115		108.3	verified
#824 (74) APU Cell	Unknown	1952	115		76.9	verified
#825 (75) APU Cell	Unknown	1952	115		76.9	verified
#826 (76 A) APU Cell	Unknown	1952	115		76.9	verified
#827 (76B) APU Cell	Unknown	1952	115		108.3	verified
#828 Gearbox Cell	Unknown	8/1/1982	228		36.5	verified
#831 (C-101) APU Cell	Unknown	1956	203		36.5	verified
#832 (C-102) APU Cell	Unknown	1956	203		36.5	verified
#837 (C-107) APU Cell	Unknown	1956	203		76.9	verified
C-903 TPE Dyno Cell	Unknown	1956	203		77	verified
C-904 TPE Dyno Cell	Unknown	1956	203		76.9	verified
C-905 TPE Dyno Cell	Unknown	1956	203		76.9	verified
C-917 T800 Dyno Cell	Unknown	June, 1987	234		108.3	verified
#918 (118E) APU Cell	Unknown	1959	118		76.9	verified
#920 TPE Prop Cell	Unknown	1965	214		224	verified
#921 TPE Prop Cell	Unknown	1965	214		224	verified
#930 TPE Dyno Cell	Unknown	Nov. 1980	225		108	verified
#931 TPE Dyno Cell	Unknown	Nov. 1980	225		117	verified
#941 Turboshaft Engines	Unknown	Sept. 1985	230		116.5	verified
#942 Turboshaft Engines	Unknown	Sept. 1985	230		116.5	verified
#943 Lycomine Engines	Unknown	July, 1987	230		117	verified
#944 Lycomine Engines	Unknown	July, 1987	230		117	verified
#953 Turbofan Testing	Unknown	1964	223		224	verified
#954 Turbofan Testing	Unknown	1964	223		224	verified
#955 Turbofan Testing	Unknown	1964	222		224	verified
#956 Turbofan Testing	Unknown	1964	222		224	verified
Fuel Nozzle Test Stand						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Max Material Flowrate	
Fuel Nozzle Test Stand	Unknown	March, 1983	208	92602377	0.05 gal/hr	verified
Fuel Nozzle Test Stand #855	Unknown	2/1/1980	211	92602067	0.05 gal/hr	verified
Fuel Nozzle Test Stand #608	Unknown	2/1/1980	211	92602067	0.05 gal/hr	verified
Fuel Nozzle Test Stand	Unknown	March, 1983	211	92602376	0.05 gal/hr	verified
Fuel Nozzle Test Stand	Unknown	Unknown	211	92602258	0.05 gal/hr	verified
Laser Sheeting Test Stand #622	Unknown	Unknown	211			verified
HOT CORROSION TEST STAND	Unknown	9/15/1996	116	94510002	0.56	verified
-	-	-	-	-	-	-
Test Rigs						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building		Heat Input (MM Btu/hr)	

Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
Ceramic Test Rig	Unknown	Unknown	116	N/A	3.82	verified
Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
Corrosion Test Rigs	Unknown	Unknown	116	N/A	0.56	verified
-	-	-	-	-	-	-
Wastewater Treatment	-	-	-	-	-	-
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	-	CFM	-
Batch Treatment Tank	Unknown	Unknown	422	92709049	-	-
-	-	-	-	-	-	-
Plating Operations Other than Chrome Plating	-	-	-	-	-	-
Soda Ash	Unknown	Unknown	422	94701176	2x2x2	1-FF109
Hot DI Rinse	Unknown	Unknown	422	94701177	2x2x2	1-GG111
Hot DI Rinse	Unknown	Unknown	422	94903419	3x3x3	1-HH109
Electro-Alkaline Cleaner	Unknown	Unknown	422	94903142	3x3x3	1-GG113
Hot DI Rinse	Unknown	Unknown	422	94903420	3x3x3	1-HH112
Electroless Nickel Plate	Unknown	Unknown	422	94903424	4x3x3	1-HH114
Alkaline Cleaner	Unknown	Unknown	422	94903169	4x3x3	1-HH112
Oakite Rustripper	Unknown	Unknown	422	94903170	4x3x3	1-HH112
Hot DI Rinse	Unknown	Unknown	422	94903416	3x2.5x3	1-HH114
Dewax Tank	Unknown	Unknown	422	94903168	4x3x3	1-HH112
-	-	-	-	-	-	-
Secondary Process Tanks						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	**Building**	Maintenance #	Tank Size (L*W*D)	-
Double Cascade Tank # 8	Unknown	Unknown	422	94701171	6x3x2	1-FF109
D.I. Water - Triple cascade Rinse Tank # 6	Unknown	Unknown	422	94903148	9x3x2	1-GG110
Triple Cascade Rinse Tank # 10	Unknown	Unknown	422	94903140	9x3x2	1-HH110
Cold Water Rinse - Room Temp Tank # 87	Unknown	Unknown	422	94701175	2x2x2	1-FF109
Cold Water Rinse - Room Temp Tank # 85	Unknown	Unknown	422	94701173	2x2x2	1-FF109
Double Rinse Tank # 25	Unknown	Unknown	422	94903155	3*4.5*3	1-HH112
Triple Cascade Rinse Tank # 14	Unknown	Unknown	422	94903144	3.5x6.5x3	1-HH114
Triple Cascade Rinse Tank	Unknown	Unknown	422	94903146	3.5x6.5x3	1-GG112
Industrial Water Spray Tank # 95	Unknown	Unknown	422	94903425	3.5x3.5x3.5	1-HH114
Cold Industrial Water Rinse Tank # 96	Unknown	Unknown	422	94903426	6.5x3.5x3.5	1-HH114
D.I. Water Tank # 97	Unknown	Unknown	422	94903422	3.5x3.5x3.5	1-HH114
Single cascade RinseTank # 30	Unknown	Unknown	422	94903160	3x2.5x3	1-HH114
Single cascade RinseTank # 23	Unknown	Unknown	422	94903153	3x2.5x3	1-HH114
Drag Out Rinse Tank # 20	Unknown	Unknown	422	94903150	3x2.5x3	1-GG113
Double Rinse Tank # 31	Unknown	Unknown	422	94903161	3x4.5x3	1-HH112

NOT IN USE - Tank # 17	Unknown	Unknown	422	94903147	3.5x3.5x3	1-GG113
NOT IN USE - Tank # 33	Unknown	Unknown	422	94903162	3x3x3	1-HH112
Single cascade Rinse Tank # 34	Unknown	Unknown	422	94903163	3x4x3	1-HH112
Triple Cascade Rinse Tank # 45	Unknown	Unknown	422	94903175	6.5x3.5x3	1-HH112
Triple Cascade Rinse Tank # 43	Unknown	Unknown	422	94903173	6.5x3.5x3	1-HH112
Triple Cascade Rinse Tank # 41	Unknown	Unknown	422	94903171	6.5x3.5x3	1-HH112
Cold Water Rinse Tank # 79	Unknown	Unknown	422	94903208	3x3x3	1-II109
Cold Water Rinse Tank # 76	Unknown	Unknown	422	94903205	3x3x3	1-II109
Double Rinse Tank # 72	Unknown	Unknown	422	94903430	3x4.5x3	1-II112
Triple Cascade Rinse Tank # 70	Unknown	Unknown	422	94903199	3x4.5x3	1-II109
Drag Out Tank # 69	Unknown	Unknown	422	94903198	3x2.5x3	1-II109
Triple Rinse Tank # 65	Unknown	Unknown	422	94903194	3x6.5x3	1-II109
Triple Cascade Rinse Tank # 63	Unknown	Unknown	422	94903192	3x6.5x3	1-II109
Triple Rinse Tank # 60	Unknown	Unknown	422	94903189	3x6.5x3	1-HH109
Rinse Tank # 59A	Unknown	Unknown	422	94903428	3x2.5x3	1-HH109
Drag Out Tank # 59	Unknown	Unknown	422	94903188	3x2.5x3	1-HH110
Single Cascade Rinse Tank # 56	Unknown	Unknown	422	94903429	3x2.5x3	1-HH110
Single Cascade Rinse Tank # 47	Unknown	Unknown	422	94903427	3x2.5x3	1-HH114
Drag Out Tank # 50	Unknown	Unknown	422	94903180	3x2.5x3	1-HH112
Heat Treat						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	-	
Quench oil Tanks	Unknown	Unknown	422	-	-	
Test Cells						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	-	Max Thruput (gal/hr)	
Grinding Operations						
Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Gas Air Flow(cfm)	
BUTLER CNC BLADE TIP GRINDER	Unknown	33329	301	90426001	n/a	1-CC30
BUTLER CNC BLADE TIP GRINDER	Unknown	35827	301	90426005	n/a	1-CC30
Fuel Storage Tanks	**Manuf. Date**	**Date Installed**	**Ground**	**Maintenance #**		
Tank 101N (Jet-A)	Unknown	4/1/1986	below	N/A		
Tank 102N (Jet-A)	Unknown	4/1/1986	below	N/A		
Tank 103N (JP-8)	Unknown	4/1/1986	below	N/A		
Tank 104N (Jet-A)	Unknown	4/1/1986	below	N/A		
Tank 114N (Jet-A)	Unknown	4/1/1986	below	N/A		
Tank 1N (2636 Shell Oil)	Unknown	4/1/1986	below	N/A		
Tank 2N (Stoddard 142)	Unknown	4/1/1986	below	N/A		
Tank 3N (Anti-Rust Oil B)	Unknown	4/1/1986	below	N/A		
Tank 4N (Mobil Met Sigma Oil)	Unknown	4/1/1986	below	N/A		
Tank 5N (Stoddard 142)	Unknown	4/1/1986	below	N/A		

Tank 6N (Mobil DTE 26 Oil)	Unknown	4/1/1986	below	N/A		
Miscellaneous Equipment						
Flame Spray Booth	Unknown	Unknown	202	92915013		
Powder Spray Booth	Unknown	Unknown	202	92915014		
Stress Coat Booth	Unknown	Unknown	202	93501043		
Methanol Brine Tank	Unknown	Unknown	206	94713005		
Methanol Brine Tank	Unknown	Unknown	207	94713006		
Liquid Vapor Blast System	Unknown	7/29/2004	302	9402009		
Emergency Generators					Horsepower	
GENERAC DIESEL GENERATOR S/N 697372	Unknown	3/4/1994	0102-1 DD25	93202017	134	102-1 DD25
GENERAC GENERATOR S/N 2061439	Unknown	3/4/1994	0103-1 AA92	93202082	107	103-1 AA92
CUMMINS GENERATOR S/N A030459905	Unknown	2/20/2003	0109-1 Q36	93202084	134	109-1 Q36
CUMMINS L040729937	Unknown	Unknown	224	93202085	79	224
KOHLER GENERATOR SET S/N 137512A5-29-51-53	Unknown	3/4/1994	0301-1 TT30	93202059	201	301-1 TT30
TELEDYNE LAARS GENERATOR S/N 2037195	Unknown	Unknown	404	93020001		404 Northside
GENERAC GENERATOR S/N 2056666	Unknown	10/18/2000	0302-1 BB38	93202081	80	302-1 BB38
CUMMINS GENERATOR S/N J020432126	Unknown	12/16/2002	0422-1 DD116	93202083	201	422-1 DD116
ONAN ELECTRIC GENERATOR SET S/N F760138091	Unknown	3/4/1994	0503-1 F20	93202053	56	503-1 F20
Fire Pumps					Horsepower	
Harrison Fire Pump	Unknown	Unknown	119	93801034	400	**1-O74**
Harrison Fire Pump	Unknown	Unknown	233	93801052	550	**1-J2**

Insignificant Equipment List

Honeywell Engines - 111 S 34th St Phoenix Permit #V97-008

Plating Operations Other Than Chrome plating

Process Tanks

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Tank Size (L*W*D)
Soda Ash	Unknown	Unknown	422	94701176	2x2x2
Hot DI Rinse	Unknown	Unknown	422	94701177	2x2x2
Hot DI Rinse	Unknown	Unknown	422	94903419	3x3x3
Electro-Alkaline Cleaner	Unknown	Unknown	422	94903142	3x3x3
Hot DI Rinse	Unknown	Unknown	422	94903420	3x3x3
Electroless Nickel Plate	Unknown	Unknown	422	94903424	4x3x3
Alkaline Cleaner	Unknown	Unknown	422	94903169	4x3x3
Oakite Rustripper	Unknown	Unknown	422	94903170	4x3x3
Hot DI Rinse	Unknown	Unknown	422	94903416	3x2.5x3
Dewax Tank	Unknown	Unknown	422	94903168	4x3x3

Secondary Process Tanks

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Tank Size (L*W*D)
Double Cascade Tank # 8	Unknown	Unknown	422	94701171	6x3x2
D.I. Water - Triple cascade Rinse Tank # 6	Unknown	Unknown	422	94903148	9x3x2
Triple Cascade Rinse Tank # 10	Unknown	Unknown	422	94903140	9x3x2
Cold Water Rinse - Room Temp Tank # 87	Unknown	Unknown	422	94701175	2x2x2
Cold Water Rinse - Room Temp Tank # 85	Unknown	Unknown	422	94701173	2x2x2
Double Rinse Tank # 25	Unknown	Unknown	422	94903155	3*4.5*3
Triple Cascade Rinse Tank # 14	Unknown	Unknown	422	94903144	3.5x6.5x3
Triple Cascade Rinse Tank	Unknown	Unknown	422	94903146	3.5x6.5x3
Industrial Water Spray Tank # 95	Unknown	Unknown	422	94903425	3.5x3.5x3.5
Cold Industrial Water Rinse Tank # 96	Unknown	Unknown	422	94903426	6.5x3.5x3.5
D.I. Water Tank # 97	Unknown	Unknown	422	94903422	3.5x3.5x3.5
Single cascade RinseTank # 30	Unknown	Unknown	422	94903160	3x2.5x3
Single cascade RinseTank # 23	Unknown	Unknown	422	94903153	3x2.5x3
Drag Out Rinse Tank # 20	Unknown	Unknown	422	94903150	3x2.5x3
Double Rinse Tank # 31	Unknown	Unknown	422	94903161	3x4.5x3
NOT IN USE - Tank # 17	Unknown	Unknown	422	94903147	3.5x3.5x3
NOT IN USE - Tank # 33	Unknown	Unknown	422	94903162	3x3x3
Single cascade Rinse Tank # 34	Unknown	Unknown	422	94903163	3x4x3
Triple Cascade Rinse Tank # 45	Unknown	Unknown	422	94903175	6.5x3.5x3
Triple Cascade Rinse Tank # 43	Unknown	Unknown	422	94903173	6.5x3.5x3
Triple Cascade Rinse Tank # 41	Unknown	Unknown	422	94903171	6.5x3.5x3
Cold Water Rinse Tank # 79	Unknown	Unknown	422	94903208	3x3x3
Cold Water Rinse Tank # 76	Unknown	Unknown	422	94903205	3x3x3
Double Rinse Tank # 72	Unknown	Unknown	422	94903430	3x4.5x3
Triple Cascade Rinse Tank # 70	Unknown	Unknown	422	94903199	3x4.5x3
Drag Out Tank # 69	Unknown	Unknown	422	94903198	3x2.5x3

Triple Rinse Tank # 65	Unknown	Unknown	422	94903194	3x6.5x3
Triple Cascade Rinse Tank # 63	Unknown	Unknown	422	94903192	3x6.5x3
Triple Rinse Tank # 60	Unknown	Unknown	422	94903189	3x6.5x3
Rinse Tank # 59A	Unknown	Unknown	422	94903428	3x2.5x3
Drag Out Tank # 59	Unknown	Unknown	422	94903188	3x2.5x3
Single Cascade Rinse Tank # 56	Unknown	Unknown	422	94903429	3x2.5x3
Single Cascade Rinse Tank # 47	Unknown	Unknown	422	94903427	3x2.5x3
Drag Out Tank # 50	Unknown	Unknown	422	94903180	3x2.5x3

Heat Treat

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building		
Quench Oil Tanks	Unknown	Unknown	422		

Test Cells

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building		Max Thruput (gal/hr)
Test cell C-106/806	Unknown	1956	203		Do Not Use Fuel
Test cell C-110	Unknown	Unknown	203		Do Not Use Fuel
Test cell C-111	Unknown	Unknown	203		Do Not Use Fuel
Test cell C-112	Unknown	Unknown	203		Do Not Use Fuel
Test cell D-116	Unknown	Unknown	204		Do Not Use Fuel
Test cell #830	Unknown	Unknown	217		Do Not Use Fuel

Grinding Operations

Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maintenance #	Gas Air Flow(cfm)
BUTLER CNC BLADE TIP GRINDER	Unknown	4/1/1991	301	90426001	n/a
BUTLER CNC BLADE TIP GRINDER	Unknown	2/1/1998	301	90426005	n/a
REFORM CNC BLADE TIP GRINDER	Unknown	5/4/2008	301		n/a
NEDERMAN E-PAK 500	Unknown	5/4/2008	301		295
Rotoclone	Unknown	Unknown	301	92401443	1000
Rotoclone	Unknown	Unknown	301	92401636	3000
Sulzer Metco SME-0 Dust Collector	Unknown	9/1/2010	103	92401028	16000
Hand Finish / Dust Collectors	There are hand finish operations in several locations across the site.				

Fuel Storage Tanks	Manuf. Date	Date Installed	Ground	Maintenance #	Capacity (gal)
Tank 101N (Jet-A)	Unknown	4/1/1986	below	N/A	10,000
Tank 102N (Jet-A)	Unknown	4/1/1986	below	N/A	10,000
Tank 103N (JP-8)	Unknown	4/1/1986	below	N/A	10,000
Tank 104N (Jet-A)	Unknown	4/1/1986	below	N/A	10,000
Tank 114N (Jet-A)	Unknown	4/1/1986	below	N/A	10,000
Tank 1N (2636 Shell Oil)	Unknown	4/1/1986	below	N/A	10,000
Tank 2N (Stoddard 142)	Unknown	4/1/1986	below	N/A	10,000
Tank 3N (Anti-Rust Oil B)	Unknown	4/1/1986	below	N/A	10,000
Tank 4N (Mobil Met Sigma Oil)	Unknown	4/1/1986	below	N/A	10,000
Tank 5N (Stoddard 142)	Unknown	4/1/1986	below	N/A	10,000
Tank 6N (Mobil DTE 26 Oil)	Unknown	4/1/1986	below	N/A	10,000

Miscellaneous Equipment					
FLAME SPRAY BOOTH	Unknown	Unknown	202	92915013	
POWDER SPRAY BOOTH	Unknown	Unknown	202	92915014	
STRESS COAT BOOTH	Unknown	Unknown	202	93501043	
Laser Drill Systems / Dust Collectors	Located in buildings 301 and 403.				
METHANOL BRINE TANK	Unknown	Unknown	208	94713005	
METHANOL BRINE TANK	Unknown	Unknown	208	94713006	
LIQUID VAPOR BLAST SYSTEM	Unknown	7/29/2004	302	94002009	
Emergency Generators	**Manuf. Date**	**Date Installed**	**Building**	**Maintenance #**	**Horsepower**
ONAN ELECTRIC GENERATOR SET S/N F760138091	Unknown	3/4/1994	0503-1 F20	93202053	56
GENERAC DIESEL GENERATOR S/N 697372	Unknown	3/4/1994	0102-1 DD25	93202017	134
KOHLER GENERATOR SET S/N 137512A5-29-51-53	Unknown	3/4/1994	0301-1 TT30	93202059	201
GENERAC GENERATOR S/N 2037195	Unknown	12/1/1997	0404-1 A178	93202077	107
GENERAC GENERATOR S/N 2061439	Unknown	3/4/1994	0103-1 AA92	93202082	107
GENERAC GENERATOR S/N 2056666	Unknown	10/18/2000	0302-1 BB38	93202081	80
CUMMINS GENERATOR S/N J020432126	Unknown	12/16/2002	0422-1 DD116	93202083	201
CUMMINS GENERATOR S/N A030459905	Unknown	2/20/2003	0109-1 Q36	93202084	134
Fire Pumps					
Harrison Fire Pump	Unknown	Unknown	119	93801034	400
Harrison Fire Pump	Unknown	Unknown	233	93801052	550

APPENDIX A-2
BSVE SYSTEM EQUIPMENT LISTS

Permitted Equipment List for BSVE System – AOS-1[a]

Honeywell 34th Street BSVE Application, Phoenix, Arizona

Process Train	Name, Make, Model, Serial #	Manufacture Date	Installation Date	Building	Maint. #	Rated Capacity
SVT-1	Air/Liquid Separator	June-08	July-08	BSVE	ALS-200	236 gallons condensate
	Vapor Injection Blower	Sept-12	Oct-12	BSVE	BL-900A	3,154 scfm
	Vapor Injection Blower	TBD[b]	TBD	BSVE	BL-900B	3,154 scfm
	Vapor Extraction Blower	May-08	July -08	BSVE	BL-300	3,300 scfm
	Extraction Air Filter	May-08	November-08	BSVE	Not Applicable	5,000 scfm
	Thermal Oxidizer Unit	May-08	July-08	BSVE	TO-400	3,300 scfm
	Scrubber	May-08	July-08	BSVE	CS-500	3,300 scfm
	Caustic Feed Pump	March-08	November-08	BSVE	P-502	20 gph
	Demister	May-08	July-08	BSVE	ALS-700	29 gallons condensate
	Heat Exchanger	April-08	July-08	BSVE	HX-600	5,100 scfm
	Cooling Tower	May-08	July-08	BSVE	CT-601	323 gpm
	Booster Blower	May-08	July-08	BSVE	BL-800	4,100 scfm
	Carbon Units (2 in series)	June-08	July-08	BSVE	VGAC-1, VGAC-2	9,000 scfm
	Potassium Permanganate Units (2 in series)[c]	TBD	TBD	BSVE	PPA-1, PPA-2	3,500 scfm

Notes:
[a]AOS-1 consists of SVT-1 only, operating with all control devices (e.g., thermal oxidizer, caustic scrubber, carbon units, and potassium permanganate units) on the treatment train.
[b] TBD – to be determined
[c] Replacing potassium permanganate units installed in July 2008 with rated capacity 9,000 scfm. Estimated to be installed during Fourth Quarter 2012, and in use by January 1, 2013.

Permitted Equipment List for BSVE System – AOS-4[a]

Honeywell 34th Street BSVE Application, Phoenix, Arizona

Process Train	Name, Make, Model, Serial #	Manufacture Date	Installation Date	Building	Maint. #	Rated Capacity[b, c]
SVT-1	Air/Liquid Separator	June-08	July-08	BSVE	ALS-200	236 gallons condensate
	Vapor Injection Blower	Sept-12	Oct-12	BSVE	BL-900A	3,154 scfm
	Vapor Injection Blower	TBD[b]	TBD	BSVE	BL-900B	3,154 scfm
	Vapor Extraction Blower	May-08	July-08	BSVE	BL-300	3,300 scfm
	Extraction Air Filter	May-08	November-08	BSVE	Not Applicable	5,000 scfm
	Thermal Oxidizer Unit	May-08	July-08	BSVE	TO-400	3,300 scfm
	Carbon Units (3 in series)	June-08	July-08	BSVE	VGAC-1, VGAC-2, VGAC-3[d]	9,000 scfm

	Potassium Permanganate Units (2 in series)[e]	TBD	TBD	BSVE	PPA-1[d], PPA-2[d]	3,500 scfm
	Demister	May-08	July-08	BSVE	ALS-700	29 gallons condensate
	Heat Exchanger	April-08	July-08	BSVE	HX-600	5,100 scfm
	Cooling Tower	May-08	July-08	BSVE	CT-601	323 gpm
SVT-2	Air/Liquid Separator	TBD	TBD	BSVE	TBD	2,000 scfm
	Vapor Injection Blower	TBD	TBD	BSVE	BL-900B	1,000 scfm
	Vapor Extraction Blower	TBD	TBD	BSVE	TBD	2,000 scfm
	Extraction Air Filter	TBD	TBD	BSVE	TBD	2,000 scfm
	Thermal Oxidizer	TBD	TBD	BSVE	TBD	Min 2,000 scfm
	Carbon Units (3 in series)	TBD	TBD	BSVE	VGAC-1, VGAC-2, VGAC-3	TBD
	Potassium Permanganate Units (2 in series)	TBD	TBD	BSVE	PPA-A1, PPA-A2	TBD
	Demister	TBD	TBD	BSVE	TBD	2,000 scfm
	Cooling Tower	TBD	TBD	BSVE	CT-602	TBD
	Heat Exchanger	TBD	TBD	BSVE	TBD	TBD

Notes:
[a]AOS-4 consists of treatment with carbon and potassium permanganate units only, e.g., no thermal oxidizer and associated equipment. The thermal oxidizer may be run for manufacturer's recommended maintenance procedures. This scenario may include SVT-1 only or SVT-1 and SVT-2 both operating.

[b] TBD – to be determined

[c] Some rated capacities may change once vendors are selected and pieces of equipment are ordered.
[d] Existing units may be modified or upgraded from those used in other operating scenarios to meet the requirements of this AOS.
[e] Replacing potassium permanganate units installed in July 2008 with rated capacity 9,000 scfm. Estimated to be installed during Fourth Quarter 2012, and in use by January 1, 2013.

Permitted Equipment List for BSVE System – AOS-5[a]

Honeywell 34th Street BSVE Application, Phoenix, Arizona

Process Train	Name, Make, Model, Serial #	Manuf. Date	Date Installed	Building	Maint. #	Rated Capacity[b, c]
	Air/Liquid Separator	June-08	July-08	BSVE	ALS-200	236 gallons condensate
	Vapor Injection Blower	Sept-12	Oct-12	BSVE	BL-900A	3,154 scfm
	Vapor Injection Blower	TBD[b]	TBD	BSVE	BL-900B	3,154 scfm
	Vapor Extraction Blower	May-08	July-08	BSVE	BL-300	3,300 scfm
SVT-1	Extraction Air Filter	May-08	November-08	BSVE	Not Applicable	5,000 scfm
	Thermal Oxidizer	May 08	July 08	BSVE	TO-400	3,300 scfm
	Carbon Units (3 in series)	June-08	July-08	BSVE	VGAC-1, VGAC-2, VGAC-3[d]	9,000 scfm
	Demister	May-08	July-08	BSVE	ALS-700	29 gallons condensate
	Heat Exchanger	April-08	July-08	BSVE	HX-600	5,100 scfm
	Cooling Tower	May-08	July-08	BSVE	CT-601	323 gpm
SVT-2	Air/Liquid Separator	TBD	TBD	BSVE	TBD	2,000 scfm
	Vapor Injection Blower	TBD	TBD	BSVE	BL-900B	1,000 scfm

Vapor Extraction Blower	TBD	TBD	BSVE	TBD	2,000 scfm
Extraction Air Filter	TBD	TBD	BSVE	TBD	2,000 scfm
Thermal Oxidizer	TBD	TBD	BSVE	TBD	min 2,000 scfm
Carbon Units (3 in series)	TBD	TBD	BSVE	VGAC-1, VGAC-2, VGAC-3	TBD
Demister	TBD	TBD	BSVE	TBD	2,000 scfm
Cooling Tower	TBD	TBD	BSVE	CT-602	TBD
Heat Exchanger	TBD	TBD	BSVE	TBD	TBD

Notes:
[a]AOS-5 consists of treatment with carbon units only, e.g., no thermal oxidizer and associated equipment. The thermal oxidizer may be run for manufacturer's recommended maintenance procedures. This scenario may include SVT-1 only or SVT-1 and SVT-2 both operating.

[b] TBD – to be determined

[c] Some rated capacities may change once vendors are selected and pieces of equipment are ordered.
[d] Existing units may be modified or upgraded from those used in other operating scenarios to meet the requirements of this AOS.