



Maricopa County
Air Quality Department

AIR QUALITY DEPARTMENT
1001 North Central Avenue
Phoenix, AZ 85004

INTEL CORPORATION
ATTN: MICHAEL HWANG
5000 W CHANDLER BLVD. MS CH7-332
CHANDLER, AZ 85226-3601

The purpose of the letter is to inform you that the application for a permit revision has been approved and will be incorporated into Air Quality Permit 970053. The applicable Permit Conditions are enclosed with this letter.

If you need assistance with the permit, please contact the Business Assistance Coordinator at 602.506.5102 or contact the undersigned at 602.506.7248. Email communications may be sent to AQPermits@mail.maricopa.gov.

MARICOPA COUNTY AIR QUALITY DEPARTMENT

Engineering and Permitting Division

1001 N. Central Avenue, Suite 400, Phoenix, Arizona 85004

Phone: (602) 506-6010

Fax: (602) 506-6985

AIR QUALITY PERMIT TO OPERATE AND/OR CONSTRUCT

(As required by Title 49, Chapter 3, Article 2, Section 49-480, Arizona Revised Statutes)

ISSUED TO

**Intel Corporation
5000 W Chandler Blvd.
Chandler, AZ 85226-3601**

This air quality permit to operate and/or construct does not relieve the applicant of the responsibility of meeting all air pollution regulations.

THE PERMITTEE IS SUBJECT TO THE SPECIFIC AND GENERAL CONDITIONS IDENTIFIED IN THIS PERMIT.

PERMIT NUMBER: 970053

REVISION DATE: 05/17/2017

REVISION NUMBER: 2.0.3.2

EXPIRATION DATE: 03/31/2019



Todd Martin, Non-Title V Permit Supervisor

TABLE OF CONTENTS

<u>SPECIFIC CONDITIONS</u>	1
1. Allowable Emissions:.....	1
2. Emission Calculation Methods:.....	1
3. Opacity	1
SEMICONDUCTOR MANUFACTURING	2
4. Emission Abatement Devices:.....	2
5. Limitations for Solvent Cleaning Stations:	2
6. Limitations for Cleanup Solvents:.....	2
7. Other Solvent Cleaning Requirements:	2
8. VOC Containment and Disposal:	2
9. Optional Compliance Demonstrations:	3
PLATING OPERATIONS	3
10. Applicability of 40 CFR 63 Subpart WWWW:	3
11. Standards:	3
12. Management Practices:.....	4
FUEL BURNING EQUIPMENT	4
13. Operational Limitations:.....	4
14. Limitations – Sulfur in Fuel:	5
15. Limitations – Nitrogen Oxides:	5
16. New Source Performance Standards:	5
EMERGENCY ENGINES	5
17. Requirements for All Stationary Reciprocating Engines:	5
18. NSPS III Requirements:.....	6
19. 40 CFR 63 Subpart ZZZZ Requirements:	7
SITE-WIDE REQUIREMENTS	8
20. Recordkeeping:.....	8
21. Reporting:.....	10
<u>GENERAL CONDITIONS</u>	11
22. Posting of Permit:.....	11
23. Compliance:.....	11
24. Malfunctions, Emergency Upsets, and Excess Emissions:	12
25. Revision / Reopening / Revocation:	12
26. Records:.....	12
27. Right to Entry:	12
28. Severability:.....	13

Any cited regulatory paragraphs or section numbers refer to the version of the rules and regulations that were in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise. However, 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. Whenever the term, Control Officer, is used in this Permit it shall be interpreted to mean, Control Officer or designated representative. Where the term "Rule" appears, it shall be construed to mean "Maricopa County Air Pollution Control Regulations" unless otherwise noted.

SPECIFIC CONDITIONS

1. Allowable Emissions:

- a. The Permittee shall not allow emissions into the atmosphere in excess of any of the following:

	Twelve Month Rolling Total Emission Limits
Volatile Organic Compounds (VOC)	40,000 Pounds
Nitrogen Oxide (NOx)	75,000 Pounds
Carbon Monoxide (CO)	46,700 Pounds
Particulate Matter <10 Micron Diameter (PM10)	8,000 Pounds
Particulate Matter <2.5 Micron Diameter (PM2.5)	8,000 Pounds
Sulfur Oxides (SOx)	1,100 Pounds
Total Hazardous Air Pollutants (HAPs)	7,631 Pounds
Any Single Hazardous Air Pollutant (HAP)	2,361 Pounds

- b. The 12-month rolling total emissions shall be calculated monthly within 45 days following the end of each calendar month by summing the emissions over the most recent 12 calendar months. The Permittee shall keep this emission record on-site for inspection or submittal upon request.

[Rule 220 §302.2]

2. Emission Calculation Methods:

- a. Evaporative and aerosol emissions shall be calculated in accordance with the methods used in the applications for Permit Revisions 1.1.0.0 and 2.0.2.0, as applicable.
- b. When available, emissions from boilers, generators, and the MicroTurbine shall be calculated using manufacturer's data, including test results for AERCO BMK6000 boilers. In the absence of manufacturer's data, emissions shall be calculated in accordance with EPA factors. SOx emissions from diesel-fueled boilers and engines shall be calculated using the fuel sulfur-based emission factors from AP-42 Tables 1.3-1 and 3.4-1, respectively, rather than manufacturer's data.

[Rule 220 §302.2]

3. Opacity

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.

- a. 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.
- b. Compliance with the opacity requirement shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9 as modified by EPA Reference Method 203B.

[Rule 300 §§301, 501]

SEMICONDUCTOR MANUFACTURING

4. Emission Abatement Devices:

- a. Acid gas and caustic exhaust streams from the CH-8 semiconductor manufacturing areas shall be exhausted to a fully operational wet scrubber.
- b. The Permittee shall submit an O&M Plan or demonstrate Adequate Maintenance and Calibration (AMC) for each control device installed during the term of this Permit for which an emission reduction credit is taken, within 45 days of the equipment receiving exhaust from semiconductor process tools. O&M Plans and AMC demonstrations shall be prepared in accordance with the Department guidance document "Optional Compliance Demonstrations, A Guideline for Semiconductor Industry, Part II, Procedure to Determine Requirement for Operation and Maintenance Plan" dated June 4, 2001 or the most current approved version.

[Rule 220 §302.2; Rule 241 §302; Rule 320 §302]

5. Limitations for Solvent Cleaning Stations:

The Permittee shall not operate a solvent cleaning station that cleans semiconductor devices with solvents containing more than 10% VOC content by weight, excluding wipe cleaning, unless each of the following requirements are satisfied:

- a. Each heated or unheated reservoir, sink, or container that transfers, stores, or holds VOC-containing material shall be provided with a full cover. A cover shall remain closed except while production, sampling, maintenance, or loading or unloading procedures require operator access;
- b. All heated or unheated reservoirs and sinks holding VOC-containing materials with a total VOC vapor-pressure exceeding 33 mmHg at 20°C (68°F) shall have a freeboard ratio greater than or equal to 1.0; and
- c. Solvent flow of VOC-containing materials shall be applied in a continuous unbroken stream and in a manner which shall prevent liquid loss resulting from splashing.

[Rule 338 §302.1]

6. Limitations for Cleanup Solvents:

VOC containing solvents used to clean semiconductor manufacturing equipment, excluding wipe cleaning, shall meet one of the following requirements:

- a. The VOC content of the solvent shall not exceed 200 g/l (1.7 lbs/gallon);
- b. The VOC composite partial pressure shall not exceed 33 mm Hg at 20°C (68°F); or
- c. The components being cleaned are totally enclosed during washing, rinsing, and draining such that no greater than 50 ppm (220 mg/m³) of VOC emissions are detected using the method as defined in Rule 338 §503.5.

[Rule 338 §302.2]

7. Other Solvent Cleaning Requirements:

The Permittee shall comply with the requirements of Rule 331 for solvent cleaning of equipment or parts that is performed for purposes other than semiconductor manufacturing processes.

[Rule 338 §403]

8. VOC Containment and Disposal:

The Permittee shall take all reasonable measures to keep VOCs from leaking or evaporating into the atmosphere including, but not limited to:

- a. All active process equipment in which VOC-containing materials are used shall be operated and maintained in proper working order.

[Rule 338 §304.1]

- b. Liquids containing more than 0.2% VOC that leak at a rate of 3 drops per minute or more shall be repaired within 24 hours of detection, or the equipment shall be shut down until replaced or repaired according to the following schedule: Shut down prior to the next line shut down or within 24 hours of

detection, whichever comes first.

[Rule 338 §304.2]

- c. All storage of VOC-containing materials subject to evaporation, including the storage of waste solvent and waste solvent residues, shall at all times be in closed containers, except when contents are added or removed.

[Rule 338 §305.1]

- d. Solvent-soaked rags used for wipe cleaning shall be stored in closed containers when not in use.

[Rule 330 §306.1]

- e. Containers shall be legibly labeled with their contents.

[Rule 338 §305.2; Rule 330 §306.2]

- f. Disposal of waste or surplus VOC-containing materials shall be done in a manner that does not promote VOC evaporation, such as, but not limited to, via sewage treatment works or having the waste hauled off-site in sealed containers.

[Rule 338 §305.3]

9. **Optional Compliance Demonstrations:**

The following Optional Compliance Demonstration documents are incorporated by reference into this Non-Title V Air Quality Permit:

- a. A Guideline for Semiconductor Industry Part II, Procedure to Determine Requirements for Operation and Maintenance Plan Point-of-Use/Exhaust Condition Units (June 4, 2001).
- b. A Guideline for Semiconductor Industry Part IV, Insignificant and Trivial Activities (March 26, 2002).
- c. A Guideline for Semiconductor Industry Part I, Acid/Base Emissions and Wet Scrubber Performance Test (May 4, 2001).

PLATING OPERATIONS

10. **Applicability of 40 CFR 63 Subpart WWWW:**

40 CFR 63 Subpart WWWW applies to each tank used for non-chromium electroplating; electroforming; electropolishing; electroless plating or other non-electrolytic metal coating operation, which contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1% by weight (as the metal) or contains manganese in amounts greater than or equal to 1.0% by weight (as the metal).

[40 CFR §§63.11505, 63.11511]

11. **Standards:**

- a. **Electrolytic Plating without Cyanide:** The Permittee shall operate electrolytic plating tanks according to the requirements of Subsection [i] or Subsection [ii] below:
 - i. The Permittee shall capture and exhaust emissions from the electrolytic tanks to CH1 Corrosive Scrubbers (CH1-F6-FS- 01 and CH1-F6-FS- 02) in accordance with 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.
 - ii. 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, use a cover at least 75% of the surface of the tank whenever the electrolytic process tank is in operation.

[Rule 320 §302; Rule 241 §302] [40 CFR §63.11507(a)]

- b. Electrolytic Plating with Cyanide: The Permittee shall measure and record the pH upon startup of each electroplating tank that uses cyanide, has a pH greater than or equal to 12, and is subject to 40 CFR 63 Subpart WWWW. No additional pH measurements are required.

[40 CFR §63.11507(d)(1)]

- c. Non-electrolytic Plating: The Permittee shall either vent emissions from electroless plating tanks through a fully operational water scrubber, operated according to manufacturer's specifications, or equip the tanks with covers that remain closed when the tanks are not in operation.

[Rule 320 §302; Rule 241 §302]

12. Management Practices:

The Permittee shall implement the applicable management practices of this Permit Condition, as practicable, for each plating tank subject to 40 CFR 63 Subpart WWWW, as specified in Permit Condition 10. The applicable management practices shall be implemented during all times that the plating tank or process is in operation.

- a. Minimize bath agitation when removing any parts processed in the tank, as practicable except when necessary to meet part quality requirements.
- b. 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.
- c. 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.
- d. Use tank covers, if already owned and available at the facility, whenever practicable.
- e. Minimize or reduce heating of process tanks, as practicable (e.g., when doing so would not interrupt production or adversely affect part quality).
- f. Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with plating tanks, as practicable.
- g. 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.
- h. Maintain quality control of chemicals, and chemical and other bath ingredient concentrations in the tanks, as practicable.
- i. Perform general good housekeeping, such as regular sweeping or vacuuming, if needed, and periodic washdowns, as practicable.
- j. Minimize spills and overflow of tanks, as practicable.
- k. Use squeegee rolls in continuous or reel-to-reel plating tanks, as practicable.
- l. Perform regular inspections to identify leaks and other opportunities for pollution prevention.

[40 CFR §63.11507(g)]

FUEL BURNING EQUIPMENT

13. Operational Limitations:

- a. Except as provided in Subsection [b] of this Permit Condition, the Permittee shall only use natural gas, butane or propane as fuel for boilers and the MicroTurbine.
- b. The Permittee may combust fuel oil in the following boilers under the circumstances listed in Subsections [i] through [iii] of this Permit Condition:

6.7 MMBtu/hr Kewanee EC1-B01 and EC1-B02

8.37 MMBtu/hr Kewanee EC1-B03

10.04 MMBtu/hr Kewanee EC1-B04 and EC1-B05

- i. During periods of natural gas curtailment; or,
 - ii. Natural gas supply emergencies; or,
 - iii. For periodic testing not to exceed 48 hours during any calendar year.
- c. The Permittee shall limit the facility-wide combustion of natural gas, excluding natural gas consumed by equipment from the Chandler 8 (CH-8) facility, AERCO BMK-6000 boilers and MicroTurbine, to no more than 350 MMscf per any 12-consecutive month period.
 - d. Good Combustion Practices: The Permittee shall operate and maintain the MicroTurbine in accordance with the manufacturer's written instructions.

[Rule 220 §302.2] [40 CFR § 63.11237 – definition of Gas-fired boiler]

14. Limitations – Sulfur in Fuel:

- a. The Permittee shall only burn fuel oil containing less than or equal to 0.05% sulfur by weight.
- b. If the Control Officer requests proof of sulfur content of fuel burned in the engines or boilers, the Permittee shall submit fuel receipts, contract specifications, pipeline meter tickets, Material Safety Data Sheets (MSDS), 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.

[Rule 323 §§ 303, 503.1; Rule 220 §302.7]

15. Limitations – Nitrogen Oxides:

For boilers between 10 to 100 MMBtu/hr, the Permittee shall establish initial optimal baseline concentrations for NO_x and CO within 90 days of the first usage of the combustion equipment utilizing the initial design burner specifications or manufacturer's recommendations to ensure good combustion practices. Each unit shall be tuned annually in accordance with good combustion practices or a manufacturer's procedure, if applicable, that includes the following at a minimum:

- a. Inspect the burner system and clean and replace any components of the burner as necessary to minimize emissions of NO_x and CO; and
- b. Inspect the burner chamber for areas of impingement and remove if necessary; and
- c. Inspect the flame pattern and make adjustments as necessary to optimize the flame pattern; and
- d. Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly; and
- e. Measure the NO_x and the CO concentration of the effluent stream after each adjustment is made with a handheld portable monitor to ensure optimal baseline concentrations are maintained.

[Rule 323 §304.1]

16. New Source Performance Standards:

Boilers for which construction, modification, or reconstruction is commenced after June 9, 1989 and have a maximum design heat input capacity greater than or equal to 10 MMBtu/hr, but less than 100 MMBtu/hr are subject to 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units).

[Rule 360 §301.5]

EMERGENCY ENGINES

17. Requirements for All Stationary Reciprocating Engines:

- a. The Permittee shall limit the operation of each emergency engine (including temporary, rental, and/or leased) to no more than 500 hours per any twelve consecutive months and shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per calendar year.

[Rule 220 §302.2; Rule 324 §104.5] [40 CFR §§ 60.4211(e), 63.6640(f)(3)]

- b. The Permittee shall limit the fuel usage for the engines to no more than 33,000 gallons per any 12 consecutive month period, excluding usage by the CH-8 generators (GEN-801, GEN-802). If requested by the Control Officer, compliance with the fuel usage limit shall be demonstrated by summing the total amount of diesel fuel delivered to the facility for the previous 12 consecutive month period.
[Rule 220 §302.2]
- c. The emergency engine(s) shall not be used for peak shaving. The emergency engine(s) shall only be used for the following purposes:
- i. For power when normal power service fails from the serving utility or if onsite electrical transmission or onsite power generation equipment fails;
 - ii. Emergency pumping of water resulting from a flood, fire, lightning strikes, police action or for any other essential public services which affect the public health and safety;
 - iii. Sewage overflow mitigation and/or prevention;
 - iv. The following reliability-related activities, as long as the total number of hours of operation for such activities does not exceed 100 hours per calendar year per engine as evidenced by an installed non-resettable hour meter:
 - 1) Engine readiness, calibration, and/or maintenance; and
 - 2) To prevent the occurrence of an unsafe condition during electrical system maintenance; and
 - 3) For temporary power when normal power service is suspended for facility maintenance purposes, if approved by the Control Officer.
 - v. As the prime engine when the prime engine has failed, but only for such time as is needed to repair the prime engine; or
 - vi. To operate standby emergency water pumps for fire control that activate when sensors detect low water pressure.
[Rule 324 §104; Rule 220 §302.2]
- d. The Permittee shall not operate the emergency engine(s) unless its cumulative run time meter is installed and working properly.
[Rule 220 §302.4] [40 CFR §§ 60.4209(a), 63.6625(f)]
- e. The Permittee shall not use any fuel that contains more than 0.05% sulfur by weight, alone or in combination with other fuels. Additional fuel requirements for new engines are specified in Permit Condition 18.a.iv.
[Rule 324 §301.1]

18. NSPS IIII Requirements:

- a. The following engines shall be certified by the engine manufacturer to meet the corresponding emission standards, as specified in 40 CFR 89.112, and shall comply with all requirements of Subsections [i]-[iv] of this Permit Condition:

Engine Identification	Standard
ID: F6-EG-1, 1005 HP Caterpillar C-27	Tier 2
ID: C3-EG-1, 250 HP Cummins DSGAC-1987183	Tier 3
ID: ND-EG-1 (ADC), 250 HP Cummins DSGAC-593507	Tier 3
ID: GEN-801, 755 HP Cummins QSX15	Tier 2
ID: GEN-802, 755 HP Cummins QSX15	Tier 2
315 HP Caterpillar D200-2, installed 2015	Tier 3

[40 CFR §§60.4205, 60.4211(c), 63.6590(c)]

- i. The Permittee shall operate and maintain the engines according to the manufacturer's written instructions, or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine.
[40 CFR §§60.4211(a), 60.4206, 63.6590(c)]
- ii. The Permittee shall only change those engine settings that are permitted by the manufacturer.
[40 CFR §§60.4211(a), 63.6590(c)]
- iii. The Permittee shall meet the requirements of 40 CFR parts 89 as it applies.
[40 CFR §§60.4211(a), 63.6590(c)]
- iv. The Permittee shall only use diesel fuel that meets the following requirements:
 - 1) Has a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent; and
 - 2) Has a maximum sulfur content of 15 parts per million (ppm).
[40 CFR §§60.4207(b), 63.6590(c)]
- b. If the Permittee modifies or reconstructs a stationary compression ignition internal combustion engine after July 11, 2005, that engine shall comply with all applicable requirements of NSPS III.
[40 CFR §60.4200(a)(3)]

19. 40 CFR 63 Subpart ZZZZ Requirements:

The Permittee shall comply with the following for all existing stationary reciprocating internal combustion engines (RICE) for which no construction or reconstruction has commenced since June 12, 2006:

- a. Operate and maintain each engine 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(b)]
- b. Operate and maintain each engine according to the manufacturer's emission-related operation and maintenance instructions or develop and follow the Permittee's own maintenance plan which must provide to the extent practicable for the operation and maintenance of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
[40 CFR §63.6640(a)]
- c. Comply with the following maintenance schedule for each engine:
 - 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 condemning limits for these parameters are as follows:
 - 1) Total Base Number is less than 30% of the Total Base Number of the oil when new;
 - 2) Viscosity of the oil has changed by more than 20% from the viscosity of the oil when new;
 - 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 replace as necessary;

- iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 CFR §63.6603(a); Table 2d(4)]

- d. If an engine is operating during an emergency and it is not possible to shut down the engine in order to perform the maintenance requirements on the schedule required by this Permit Condition, or if performing the maintenance operations on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the maintenance operations can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The maintenance operations shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the maintenance operations on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable, in accordance with Permit Condition 21.b.

[40 CFR §63.6603(a); Table 2d]

- e. During periods of startup, the Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

[40 CFR §63.6625(h)]

SITE-WIDE REQUIREMENTS

20. Recordkeeping:

The Permittee shall comply with the requirements set forth in this permit. All records and data required by this section shall be kept on site at all times in a consistent and complete manner and be made available without delay to the Control Officer or his designee upon request. Unless otherwise specified, copies of reports, logs and supporting documentation required by the permit or Control Officer shall be retained for at least 5 years. Records shall consist of the following information:

[Rule 220 §501]

- a. The Permittee shall maintain a current list of VOC-containing materials, including their formulations as applied, make-up solvents, and any other VOC-containing materials used for all operations at the facility, stating the VOC content of each in either pounds per gallon or grams per liter. The vapor pressure limits or VOC content of cleaning solvents shall be documented by a manufacturer's technical data sheet, manufacturer's safety data sheet or actual test results.

[Rule 338 §502.1][Rule 220 §302.7]

- b. The Permittee shall keep monthly usage records of VOC-containing materials on site.

[Rule 338 §502.2][Rule 220 §302.7]

- c. The Permittee shall maintain records of any monitoring and maintenance requirements and key operating parameters as specified in the O&M Plans, AMC Plans and/or manufacturer's specifications and operating instructions required by this Permit for any emission control device in which an emission reduction credit is taken.

[Rule 220 §302.7]

- d. The Permittee shall record and maintain records of the amounts of fuel oil combusted in the boilers each day the boilers are operated with fuel oil.

[Rule 220 §302.7]

- e. To demonstrate compliance with Permit Condition 13.c, the Permittee shall maintain monthly records of the rolling 12-month total amount of natural gas burned at the facility, excluding the CH-8 plant, AERCO BMK-6000 boilers and MicroTurbine.

[Rule 220 §302.7]

- f. Plating Tanks: The Permittee shall maintain the following records for each plating tank, as applicable:

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

- ii. For process units or operations subject to 40 CFR 63 Subpart WWWW, 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 the pH of any cyanide-containing tanks subject to Permit Condition 11.b.
- vii. Manufacturer's specifications and operating instructions for the CH1 Corrosive Scrubbers (SC 133-1-00 and SC 133-2-00).

[Rule 220 §302.7] [40 CFR § 63.11509(e)-(f)]

g. Boilers:

For boilers that have a heat input greater than or equal to 10 MMBtu/hr but less than or equal to 100 MMBtu/hr, the Permittee shall maintain the following records:

- i. The Permittee shall record and maintain records of the amount and type of each fuel combusted during each calendar month. A monthly invoice from the fuel supplier may be used to demonstrate compliance with the requirement of this provision.

[40 CFR §60.48c(g)]

- ii. The amount of sulfur in the fuel if using liquid fuel.

[Rule 323 §503.1]

- iii. Hours of Operation Using Liquid Fuel: Monthly records of type of liquid fuel used, the dates and hours of operation using liquid fuel, and the nature of the emergency or purpose for the use of the liquid fuel. For each boiler, the Permittee shall maintain records of the total hours of operation the unit burned liquid fuel during each calendar year.

[Rule 323 §501.2]

- iv. Tuning Procedure: Date that the procedure was performed on the particular unit and at a minimum: stack gas temperature, flame conditions, nature of the adjustment and results of the NO_x and CO concentrations obtained after each adjustment.

[Rule 323 §501.4]

h. Emergency Engine Records:

- i. To demonstrate compliance with Permit Condition 17.b, the Permittee shall maintain copies of fuel purchase receipts for all diesel fuel delivered to the facility. Each receipt must include both the delivery date and amount of fuel transferred to the facility for each event.

[Rule 220 §302.7]

- ii. The Permittee shall maintain an annual engine record for each emergency generator and water pump that includes hours of operation and an explanation for use.

[Rule 324 §502.4]

- iii. The Permittee shall keep a record that includes 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.

[Rule 324 §502.1]

- iv. The Permittee shall maintain 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.

[Rule 220 §302.5] [40 CFR §§ 60.4211(e), 63.6590(c), 63.6655(f), 63.6660]

- v. The Permittee shall maintain a copy of engine manufacturer data for each engine specified in Permit Condition 18.a, indicating compliance with the standards in this Permit, and shall make the documentation available to the Control Officer upon request. The manufacturer's data sheets shall be maintained by the Permittee for the length of time the engine(s) remain at the facility.
[Rule 220 §302.7]
- vi. For the engines specified in Permit Condition 18.a, the Permittee shall maintain a copy of the manufacturer's written instructions, or procedures developed by the Permittee that are approved by the engine manufacturer, shall be kept onsite for the length of time the engine(s) remain at the facility and made available to the Control Officer upon request.
[Rule 220 §302.7] [40 CFR §60.4211(a)]
- vii. If the Control Officer requests proof of the sulfur content of fuel burned in the engines, the Permittee shall submit fuel receipts, contract specifications, pipeline meter tickets, Material Safety Data Sheets (MSDS), 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.
[Rule 220 §302.13, Rule 324 §501.4]
- viii. 40 CFR 63 Subpart ZZZZ requirements: Records of the maintenance conducted on the engine in order to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the maintenance plan required in Permit Condition 19.
[Rule 220 §302.7] [40 CFR §§63.6655(e), 63.6660]

21. Reporting:

- a. The Permittee shall submit the following reports to the Control Officer, Attn: Compliance Manager, every six months from the date of permit issuance:
 - i. A NO_x emission report. The Permittee shall prepare a monthly NO_x emission report to be kept onsite for inspection upon request. The twelve month rolling total NO_x emission shall be calculated within 45 days following the end of each calendar month by summing the NO_x emissions over the most recent 12 calendar months.
[Rule 220 §302.8]
 - ii. Fuel oil receipts and/or records of fuel supplier certification, as described under Permit Condition 14.b
[40 CFR §60.48c(d)][Rule 220 §302.8]
 - iii. A certified statement signed by the owner or operator that the fuel oil receipts and/or records of fuel supplier certifications submitted represent all of the fuel oil combusted during the reporting period.
[40 CFR §60.48c(d)][Rule 220 §302.8; Rule 200 §309]

All reports shall include the calendar dates covered by the reporting period and shall be postmarked by the 30th day following the end of the reporting period, for reports submitted to the EPA. Reports submitted to the Compliance Manager shall be postmarked by the 45th day following the end of the reporting period.
[40 CFR §60.48c(j)][Rule 220 §302.8]

- b. Deviations from Maintenance Schedule:
The Permittee shall report any failure to perform a maintenance operation on the schedule required by Permit Condition 19.d 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 working 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 working days after the required maintenance operation is performed.
[Rule 220 §302.8] [40 CFR §63.6603(a)]

- c. The Permittee shall submit to the Control Officer, Attn: Permitting Manager, notification of the date of construction, anticipated startup, and actual startup of any new steam generating unit(s) between 10 and 100 MMBtu/hr, as provided in 40 CFR §60.7 and Subsection [d] of this Permit Condition. This notification shall include:
- i. The design heat input capacity of the steam generating unit(s) and identification of fuels to be combusted in the steam generating unit(s).
 - ii. The annual capacity factor at which the Permittee anticipates operating the steam generating unit(s) based on all fuels fired and based on each individual fuel fired.
- [40 CFR §60.48c(a)]
- d. The Permittee shall submit to the Control Officer, Attn: Permitting Manager, notification of the date of construction or reconstruction and actual startup of any new steam generating unit(s) between 10 and 100 MMBtu/hr as follows:
- i. A notification of the date construction or reconstruction of the new steam generating unit(s) is commenced postmarked no later than 30 days after such date.
 - ii. A notification of the actual date of initial startup of new steam generating unit(s) postmarked within 15 days after such date.
- [40 CFR §60.7]
- e. Annual Certification of Compliance Report for 40 CFR 63 Subpart WWWW:
- i. The Permittee shall prepare an annual certification of compliance report. This report does 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 to the Control Officer, Attn: Permitting Manager, 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 to the Control Officer, Attn: Permitting Manager, 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)]
- f. Notifications and reports required by this Permit Condition shall be submitted to the Control Officer, Attn: Permit Manager, at the following address:
- Maricopa County Air Quality Department, 1001 N. Central Ave., Suite 125, Phoenix, Arizona 85004-1944

GENERAL CONDITIONS

22. Posting of Permit:

This Permit shall be posted in a clearly visible and accessible location on the site where the equipment is installed.

[Rule 200 §312]

23. Compliance:

- a. 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; Rule 220 §406.3]

- b. The Permittee shall comply with all conditions of this Permit including all applicable requirements of Federal laws, Arizona laws, and Maricopa County Air Pollution Control Rules and Regulations now in effect and as amended in the future. Any Permit noncompliance is grounds for enforcement action, Permit termination or revocation, or for denial of a renewal application. In addition, non-compliance with any federally enforceable requirements constitutes a violation of the Clean Air Act.
[Rule 200 §310.4][Rule 220 §302.24] [A.A.C R18-2-306.A.8.a]
- c. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with these Permit Conditions.
[Rule 220 §302.10, 11] [A.A.C. R18-2-306.A.8.b]
- d. Rights and Privileges: This Permit does not convey any property rights or exclusive privilege of any sort.
[Rule 220 §302.12]
- e. Fees: The Permittee shall pay all fees to the Control Officer in accordance with Rule 280. No permit or permit revision is valid until the applicable permit fee has been received and until the permit is issued by the Control Officer.
[Rule 200 §409; Rule 280 §302] [ARS 49-480(D)] [SIP Rule 28]

24. Malfunctions, Emergency Upsets, and Excess Emissions:

An affirmative defense of an emergency, excess emission, and/or during startup and shutdown shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence as outlined in Rule 130 for emergencies and Rule 140 for excess emissions.

[Rule 130 §§201, 400; Rule 140 §§400, 500] [SIP Rule 140]

25. Revision / Reopening / Revocation:

The 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 220 §302.11]

26. Records:

- a. The Permittee shall furnish 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. The information shall be provided in a timeframe specified by the Control Officer. 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.

[Rule 220 §302.13] [SIP Rule 40]

- b. 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 a complete application is filed but prior to release of a proposed permit. Willful misrepresentation of facts in a permit application is cause for revocation or denial of a permit.

[Rule 220 §§301.5, 301.6]

27. Right to Entry:

- 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 designated representatives, upon presentation of proper credentials (e.g., Maricopa County Air Quality Department identification) 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. To record any inspection by use of written, electronic, magnetic, and photographic media.

[Rule 100 §105; Rule 220 §302.17-21] [SIP Rule 43]

28. Severability:

The rules, paragraphs, clauses, provisions, and/or sections of this Permit are severable, and, if any rule, paragraph, clause, provision, and/or section of this Permit is held invalid, the remainder of this Permit shall not be affected thereby.

[Rule 220 §302.9] [SIP Rule 80]