

MARICOPA COUNTY AIR QUALITY DEPARTMENT
Engineering and Permitting Division
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GENERAL PERMIT TO OPERATE AND/OR CONSTRUCT

*As required by Title 49, Chapter 3, Article 2, Section 49-480, Arizona Revised Statutes
and Maricopa County Air Pollution Control Regulations*

for
GRAPHIC ARTS OPERATIONS

*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.

REVISION DATE: 05/03/2022

EXPIRATION DATE: 05/03/2027

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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. Where the term "SIP Rule" appears, it shall be construed to mean "Maricopa County Air Pollution Control Regulations approved by the U.S. Environmental Protection Agency into the State Implementation Plan.

SPECIFIC CONDITIONS

FACILITY-WIDE LIMITATIONS

1. Allowable Emissions:

- a. The Permittee shall not allow facility-wide emissions of Volatile Organic Compounds (VOC) to exceed 20 tons per any 12-consecutive month period.
- b. Total VOC emissions from all graphic arts and related coating operations prior to control shall be less than 4,200 lbs/mo.
- c. Monthly and 12-month rolling total VOC emissions shall be calculated monthly by the end of the following month by summing the emissions over the most recent 12 calendar months. To demonstrate compliance with Subsection [b] of this Permit Condition, the Permittee shall document the quantity of VOC-containing materials used for graphic arts operations and keep sufficient records of the basis of such calculations. The Permittee shall keep these emission records on-site for inspection or submittal upon request.

[SIP Rule 220 § 302.2][SIP Rule 337 §§ 103.2, 502.5][Rule 241 §§ 102.1, 301.1]

2. Opacity

- a. 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.

[SIP Rule 300 § 301]

- b. 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.

[SIP Rule 220 § 302.2]

- c. 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.

[SIP Rule 300 § 501]

GRAPHIC ARTS

3. Material Limitations for Lithographic and Letterpress Operations:

- a. Fountain Solution VOC Limits for Offset Lithographic Presses: The Permittee shall limit the combined total of alcohol, alcohol substitute, and any other VOC in each fountain solution source to no more than the following weight percent, as applied:

	Weight Percent VOC Limits for Fountain Solutions, As Applied		
	Fountain Solutions Containing Alcohol	Fountain Solutions Containing Alcohol Refrigerated at or Below 60 °F (15.5 °C)	Fountain Solutions Containing Alcohol Substitutes
Heatset Web	1.6%	3.0%	5%
Sheet-Fed	5%	8.5%	5%
Cold-Set Web	None	None	5%

[SIP Rule 337 § 302.2]

- b. The Permittee shall use cleaning solutions that either contain less than 70% VOC by weight or have a VOC vapor pressure of less than 10 millimeter of mercury column (mm Hg) at 20° C.

[SIP Rule 337 § 302.3]

4. Work Practices – Storage, Handling and Disposal of VOC-Containing Material:

The Permittee shall comply with each of the following:

- a. Labeling of Containers: All containers that are 1.0 gal or larger used for collection of VOC-containing material shall be clearly identified with their contents.
- b. Use of VOC-Containing Materials: The Permittee shall not leave containers of ink, coating, adhesive or fountain solution or any other VOC-containing material open when not in use.
- c. Storage and Disposal: The Permittee shall not use open containers for the storage or disposal of VOC-containing materials.
- d. Spills: The Permittee shall implement procedures to minimize spills of any VOC-containing material during handling and transfer to and from containers, enclosed systems, waste receptacles and other equipment.
- e. Conveyance of VOC-Containing Materials: All VOC-containing materials including VOC-containing cleaning materials shall be conveyed from one location to another in labeled, closed containers or pipes.

[SIP Rule 337 § 306]

5. Monitoring of Fountain Solutions:

- a. The Permittee shall determine the VOC concentration of each fountain solution source containing any alcohol with a refractometer, hydrometer, or conductivity meter. The instrument shall:
 - i. Have a visual readout (analog or digital) with an accuracy of ±2% of the instrument’s full scale, or ±0.5% absolute (such as for meter readings given in percent); and
 - ii. Be installed, calibrated, maintained, and operated according to the manufacturer’s instructions and the O&M Plan.

[SIP Rule 337 § 501.2(a)]

- b. The temperature of a refrigerated fountain solution shall be determined by the use of a temperature monitoring device. Each temperature monitoring device used for the purpose of this Permit Condition shall be accurate to ±0.5 °F and calibrated by one of the following:
 - i. ASTM standards (ASTM E1-07 Standard Specification for ASTM Liquid-in-Glass Thermometers); or
 - ii. National Institute of Standards and Technology (NIST) traceable calibration certificate; or
 - iii. Manufacturer’s recommended method of calibration.

[SIP Rule 337 §§ 501.2(b), 503.2]

6. Recordkeeping and Reporting:

The Permittee shall comply with the recordkeeping and reporting requirements of this permit condition. Records can consist of but are not limited to purchase orders, invoices, receipts, usage records, MSDS, and hazardous wastes manifests. Any records required by this rule shall be retained for five years and be made available to the Control Officer upon request. Records may be kept in either electronic or paper format.

- a. Current Materials List: The Permittee shall maintain a current list of inks, coatings, adhesives, fountain-solution alcohol(s) and alcohol substitutes, thinners, cleaners, and any other VOC-containing materials used that includes at a minimum:
 - i. Material Name: Record the name/code/manufacturer and the appropriate material type category of each VOC-containing materials used in the graphic arts processes.
 - ii. VOC Content: The VOC content of each material listed as pounds of VOC per gallon or grams of VOC per liter.
 - iii. Product Data Sheet: Specific mixing instructions and the VOC content as applied for products requiring dilution.
 - iv. VOC Vapor Pressure: For each cleaning solution, list the VOC composite vapor pressure (VP) at 20° C (68° F) by providing one of the following:
 - 1) A current manufacturer's technical data sheet listing vapor pressure; or
 - 2) A current manufacturer's safety data sheet (MSDS) listing vapor pressure; or
 - 3) Actual vapor pressure test results; or
 - 4) Calculations using certified data from a laboratory or manufacturer revealing the exact formulation.

[SIP Rule 337 §§ 502.1, 503.4]

- b. Material Usage Records: The Permittee shall update records monthly showing the type and amount consumed of each graphic-arts ink, varnish, coating, adhesive, fountain solution, blanket wash, and all other cleaning solutions.

[SIP Rule 337 § 502.2]

- c. Fountain Solutions:

- i. Alcohol-Containing Fountain Solutions:

- 1) Daily: The Permittee shall record the temperature of refrigerated alcohol solutions.

[SIP Rule 337 § 502.3(a)(1)]

- 2) Weekly: The Permittee shall:

- a) Record the percentage of VOC for each different batch of fountain solution containing alcohol; and
- b) Maintain a weekly record of the names and the most current mixing ratio for each different batch of all alcohol, alcohol-substitutes, and water used in making each fountain solution for that source.

[SIP Rule 337 § 502.3(a)(2)]

- ii. Fountain Solutions Containing Alcohol Substitutes: The Permittee shall:

- 1) Monthly: Record the mixing ratio of all alcohol-substitutes to water for each fountain solution source on a press which never uses alcohol; and

- 2) Maintain a current list of the names of all fountain solutions containing alcohol substitutes.
[SIP Rule 337 § 502.3(b)]
- d. Records of the 12-month rolling total emissions, as required by Permit Condition 1.c.
[SIP Rule 220 §302.7]

FUEL BURNING EQUIPMENT

7. Operating Limitations:

- a. The maximum manufacturer's heat input rating of any single fuel-burning piece of equipment shall not exceed 10 million Btu/hr.
- b. The maximum combined heat input rating for all fuel burning equipment (excluding internal combustion engines) at the facility as a whole shall not exceed 30 million Btu/hr.
- c. Only natural gas, propane and butane shall be used as fuels in the fuel burning equipment.
[SIP Rule 220 § 302.2]

SOLVENT CLEANING

The requirements of this permit section apply to dip tanks, solvent cleaners and wipe cleaning that is not regulated under the Graphic Arts section of this permit.

8. Definitions:

For the Purpose of this Permit Section, the following definitions apply:

- a. *Cleaning Solvent*: Solvent used for cleaning that contains more than 2.0% VOC by weight and more than 20 grams of VOC per liter.
- b. *Conforming Solvent*: A cleaning-solvent having a total VOC vapor pressure at 68° F (20° C) not exceeding 1 mm Hg.
- c. *Freeboard Height*:
 - i. *Batch Cleaning Machine*: 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.
 - ii. *In-Line Cleaning Machine*: The vertical distance from the solvent/air interface to the lowest entry/exit point, measured during idling mode.
- d. *Freeboard Ratio*: The ratio of the solvent cleaning machine freeboard height to the smaller interior dimension (length, width, or diameter) of the solvent cleaning machine.
- e. *Low-VOC Cleaner*: 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.
- f. *Remote Reservoir Cleaning Machine (Degreaser)*: Any non-vapor cleaning machine in which the reservoir for storing the cleaning solvent is completely separated by impervious surfaces from the sink or basin where cleaning is performed, except for a connecting tube or isthmus through which solvent returns to the reservoir when cleaning is stopped.
- g. *Sealed System*: An air-tight or airless cleaning system which is operated according to the manufacturer's specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:
 - i. Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle; and
 - ii. Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use; and

- iii. Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out.
- h. *Small Cleaner*: Any degreaser or dip tank having a liquid surface area of 1.0 ft² or less or having a maximum capacity of 1.0 gal or less.
- i. *Solvent Cleaning Machine (Cleaning Machine) (Degreaser)*: Any liquid container and ancillary equipment designed to clean surfaces and/or remove surface contaminants using cleaning-solvents.
[SIP Rule 331 §§ 200, 304.3, 308.2(b)] [Rule 331 §§ 200, 304.3, 308.2(b)]

9. Operating Restrictions:

- a. The Permittee shall not operate a vapor cleaning machine in which solvent-vapor from boiling cleaning solvent is utilized for cleaning objects.
- b. The Permittee shall not use any solvents containing: methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5), chloroform (CAS No. 67-66-3), or 1-bromopropane (CAS No. 106-94-5).

[SIP Rule 220 § 302.2]

10. Solvent Handling Requirements:

The Permittee shall comply with all of the following:

- a. All cleaning solvent, including solvent soaked materials, shall be kept in closed, leak-free, impervious containers that are opened only when adding or removing material.
 - i. Porous or absorbent materials used for wipe cleaning shall be stored in closed containers when not in use.
 - ii. Each container shall be clearly labeled with its contents.
- b. If any cleaning solvent escapes from a container:
 - i. Wipe up or otherwise remove immediately if in accessible areas.
 - ii. For areas where access is not feasible during normal production, remove as soon as reasonably possible.
- c. Unless records show that VOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.

[SIP Rule 331 § 301]

11. Equipment Requirements:

The Permittee shall comply with all of the following:

- a. Provide a leak-free, impervious container (degreaser) for the solvents and the articles being cleaned.
 - i. The VOC-containment portion shall be impervious to VOC-containing liquid and vapors.
 - ii. No surface of any freeboard required by this Permit shall have an opening or duct through which VOC can escape to the atmosphere, except as controlled by an Emission Control System (ECS), or as required by OSHA.
- b. Properly maintain and operate all cleaning machine equipment required by this permit.

[SIP Rule 331 § 302]

12. Specific Operating and Signage Requirements for Cleaning Machines:

The Permittee when using cleaning solvent, other than a low-VOC cleaner, shall comply with the following requirements:

- a. Operating Requirements:

- i. Fans: Do not locate nor position comfort fans in such a way as to direct airflow across the opening of any cleaning machine.
- ii. Cover: Do not remove any device designed to cover the solvent unless processing work in the cleaning machine or maintaining the machine.
- iii. Draining: Drain cleaned parts for at least 15 seconds after cleaning or until dripping ceases, whichever is later.
- iv. Spraying: If using a cleaning solvent spray system, unless otherwise authorized in Permit Condition 16, the Permittee shall:
 - 1) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).
 - 2) Pressure at the orifice from which the solvent emerges shall not exceed 10 psig and shall not cause liquid solvent to splash outside of the solvent container.
 - 3) 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.
- v. Agitation: No person shall 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 15 seconds.
- vi. No Porous Material:
 - 1) The Permittee shall neither clean nor use porous or absorbent materials to clean parts or products in a cleaning machine. Porous or absorbent materials include, but are not limited to, cloth, leather, wood, and rope.
 - 2) The Permittee shall not place an object with a sealed wood handle, including a brush, in or on a cleaning machine.
 - 3) The Permittee shall not place porous or absorbent materials on a cleaning machine.
- vii. Vent Rates: The ventilation rate at the cleaning machine shall not exceed 65 cfm/ft² per square foot of evaporative surface (20 m³/min/m²), 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.
- viii. Hoist Speed: 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 11 ft/min (3.3 m/min).
- ix. Contamination Prevention: Prevent cross contamination of conforming solvents with non-conforming solvents. Use signs, separated work-areas, or other effective means for this purpose.
- x. Filtration Devices: If a filtration device is inherent in the design of the cleaning machine, then such filtration device shall be operated in accordance with manufacturer's specifications and in accordance with the following requirements:
 - 1) The filtration device shall be fully submerged in cleaning solvent at all times during filtration.
 - 2) When the filtration device is completely saturated and must be removed from the cleaning machine, the filtration device shall be drained until no liquid can flow from the filtration device. Draining and drying such filtration device shall be conducted in a sealed container with no exhaust to the atmosphere or work area.

- 3) After the filtration device is dry, the filtration device shall be stored in a closed, leak-free, impervious container that is legibly labeled with its contents and that remains covered when not in use. Disposal of the filtration device shall be done in a manner that inhibits VOC evaporation and that is in compliance with appropriate/legal methods of disposal.
- b. Signage Requirements: The Permittee, when using cleaning-solvent other than low VOC cleaner, in any solvent cleaning machine (degreaser) or dip tank shall provide 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:
 - i. “Keep cover closed when parts are not being handled.” (This is not required for remote reservoir cleaners.)
 - ii. “Drain parts until they can be removed without dripping.”
 - iii. “Do not blow off parts before they have stopped dripping.”
 - iv. “Wipe up spills and drips as soon as possible; store used spill rags [or ‘wiping material’] in covered container.”
 - v. “Don’t leave cloth or any absorbent materials in or on this tank.”
 - vi. For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: “Operating instructions can be obtained from _____,” listing a person or place where the instructions are available.

[SIP Rule 331 § 303]

13. Solvent Specifications:

- a. Except as provided in Subsection [b] of this Permit Condition, the Permittee shall comply with one of the following requirements:
 - i. Use a conforming solvent; or
 - ii. Use a sealed system that is an Air-tight or Airless Cleaning System which is operated according to the manufacturer’s specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:
 - 1) Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle; and
 - 2) Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use; and
 - 3) Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out.
- b. Exemption: The following are exempt from Subsection [a] of this Permit Condition:
 - i. Low-VOC cleaners.
 - ii. Wipe cleaning.
 - iii. Small Cleaners.
 - iv. Aerosol cans, squirt bottles and other solvent containers intended for handheld use.

[SIP Rule 331 §§ 304; 307.2, 307.3(b); 308.2]

14. Batch Cleaning Equipment:

The Permittee shall comply with the following requirements when using cleaning solvent other than a low-VOC cleaner:

- a. With Remote Reservoir: A batch cleaning machine with remote reservoir, including cabinet type(s), shall be equipped with the following:
- i. A sink-like work area or basin which is sloped sufficiently towards the drain so as to prevent pooling of cleaning solvent.
 - ii. 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 in² (100 cm²).
 - iii. Solvent Return: Provide a means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine.
- [SIP Rule 331 § 305.1]
- b. With Internal Reservoir (includes dip tanks): A batch cleaning machine without a remote reservoir shall be equipped with all of the following:
- i. 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); and
 - ii. 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. A 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 by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.
 - iii. In the absence of additional applicable freeboard standards, freeboard height shall be not less than 6 inches (15.2 cm); and
 - iv. The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level which conforms to the applicable freeboard requirements.
- [SIP Rule 331 § 305.2]
- c. Using Cleaning Solvent that is Heated or Agitated: If a cleaning machine uses a cleaning solvent at a temperature above 120° F (49° C) or agitates the solvent, then the Permittee shall comply with one of the following:
- i. Remote Reservoir Cleaning Machines: For a remote reservoir cleaning machine, comply with Subsection [a] of this Permit Condition and one of the following:
 - 1) Use a stopper in the drain whenever the sink or cabinet is empty of solvent and nothing is being handled in the sink; or
 - 2) Cover the sink or cabinet whenever the sink or cabinet is empty of solvent and nothing is being handled in the sink.
 - ii. Internal Reservoir Cleaning Machines: For an internal reservoir cleaning machine, comply with Subsection [b] of this Permit Condition and one of the following:
 - 1) A Water Cover: A floating layer of water (insoluble in the solvent) at least 1-inch thick, and a freeboard at least 6 inches above the top of the solvent shall be present; or
 - 2) Freeboard and Cover:
 - a) The basin shall have a freeboard ratio of 0.75 or greater and an impervious cover shall cover the basin whenever work is not being processed; and

- b) If a non-conforming solvent is used, the cover shall be of a sliding or rolling type which is designed to easily open and close in a horizontal plane without disturbing the vapor zone.
- iii. Cabinet Style: Keep a cabinet-style cleaning machine closed at all times that it contains cleaning solvent, except when introducing or removing work from the machine.

[SIP Rule 331 § 305.3]

15. In-line (Conveyorized) Cleaning Machines:

The Permittee shall not operate an in-line cleaning machine using cleaning solvent unless it complies with all of the following requirements:

- a. Features:
 - i. Carry-Out Prevention: Equip the cleaning machine with either a drying tunnel or another means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out cleaning solvent liquid or vapor.
 - ii. Enclosed Design: An in-line cleaning machine shall be fully enclosed except for entrance and exit portals.
 - iii. Cover: During shutdown hours or if the cleaning machine is idle for more than 30 minutes, a cover shall be used to close the entrance and exit and any opening greater than 16 in² (104 cm²).
- b. Minimized Openings: Entrances and exits should silhouette workloads so that the average clearance between parts and the edge of the cleaning machine opening is either less than 4 inches (10 cm), or less than 10% of the width of the opening.
- c. The machine shall have a freeboard ratio greater than or equal to 0.75.

[SIP Rule 331 § 306]

16. Additional Equipment Requirements for Special Cleaning Situations:

- a. Blasting/Misting with Conforming Solvent: blasting or misting with conforming solvent shall be performed in a device having 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. The device shall be operated such that there is no perceptible leakage from the device except for incidental drops from drained, removed parts.
- b. High Pressure Flushing with Conforming Solvent: Cleaning systems using cleaning solvent that emerges from an object undergoing flushing with a visible mist or at a pressure exceeding 10 psig, shall use a containment system that is designed to prevent any perceptible cleaning solvent liquid from becoming airborne outside the containment system, such as a completely enclosed chamber.

[SIP Rule 331 § 307]

17. Recordkeeping and Reporting:

The Permittee shall maintain the following records which shall be retained for five years and be made available to the Control Officer upon request.

- a. Current List:
 - i. 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. A facility using any conforming solvent 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 (MSDS), or

- 3) Actual test results.
- b. Usage Records:
 - i. Monthly:

Records of the amount of cleaning solvent used shall be updated by the end of month for the previous month. Show the type and amount of each makeup and all other cleaning solvent to which this Permit Section is applicable.
 - ii. Annually:
 - 1) Certain Concentrates: Use of concentrate that is used only in the formulation of low-VOC cleaner shall be updated at least annually. For a low-VOC cleaner, the Permittee need not keep a record of a cleaning substance that is made by diluting a concentrate with water or non-precursor compound(s) to a level that qualifies as a low-VOC cleaner, if records of the concentrate usage are kept in accordance with this permit.
 - 2) Grouping by VOC Content: For purposes of recording usage, the Permittee may give cleaning solvents of similar VOC content a single group name, distinct from any product names in the group. The total usage of all the products in that group is then recorded under just one name. (In such a case, the Permittee must 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 0.1 pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.
- c. Records of the 12-month rolling total emissions, as required by Permit Condition 1.c.

[SIP Rule 331 § 501]
[SIP Rule 220 §302.7]

STATIONARY EMERGENCY INTERNAL COMBUSTION ENGINES (ICE)

18. Operating Restrictions:

- a. Only emergency engines may be operated under this General Permit.
- b. The total combined rating of all stationary engines shall not exceed 640 brake horsepower (bhp).
- c. The Permittee shall limit the operation of each stationary engine to no more than 100 hours each per calendar year.

[Rule 100 § 200.61.i][Rule 230 § 301][SIP Rule 220 § 302.2]
- d. Stationary engines shall not be used for peak shaving. Stationary engines 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. Reliability-related activities such as engine readiness, calibration, or maintenance or to prevent the occurrence of an unsafe condition during electrical system maintenance as long as the total number of hours of the operation does not exceed 100 hours per calendar year per engine as evidenced by an installed non-resettable hour meter. Hours of operation during the commissioning period do not count towards the 100 hour per calendar year limit on hours of operation for reliability-related activities though they do count towards the total 500 hour per any twelve consecutive months limit of Permit Condition 18.b;
 - iii. 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;

- iv. Sewage overflow mitigation and/or prevention; or
- v. To operate standby emergency water pumps for fire control that activate when sensors detect low water pressure.
[Rule 324 § 104][SIP Rule 324 § 104][40 CFR §§ 60.4211(f); 60.4243(d); 63.6640(f)]

19. Fuel Requirements:

- a. The Permittee shall only operate compression ignition engines using diesel fuel (i.e., fuel oil):
 - i. The Permittee shall not use any diesel fuel that contains more than 0.0015% sulfur by weight, alone or in combination with other fuels.
[Rule 324 § 301.1] [40 CFR §§ 60.4207(b), 80.510(b)]
 - ii. For engines subject to NSPS Subpart IIII, as specified in Permit Condition 24.a, the Permittee shall only use diesel fuel that has a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR §§ 60.4207(b), 80.510(b)]
- b. The Permittee shall only operate spark ignition engines using gasoline, natural gas, or liquefied petroleum gas (LPG), including propane:
 - i. The Permittee shall not use any gasoline that contains more than 80 ppm sulfur as a per-gallon cap.
 - ii. The Permittee shall not use any natural gas or LPG that contains more than 0.05% sulfur by weight, alone or in combination with other fuels.
[Rule 324 § 301]
- c. The Permittee may operate a natural gas fired engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use.
[40 CFR § 60.4243(e)]

20. Maintenance Requirements:

The Permittee shall comply with one of the following for each stationary engine:

- a. Maintain the engine in accordance with the manufacturer's written instructions;
- b. Maintain the engine in accordance with the maintenance schedule provided by the manufacturer's authorized service provider; or
- c. Conduct preventative maintenance according to the following schedule, including all of the following tuning procedures, if the engine is so equipped, and if such procedures are appropriate to the type of engine:
 - i. The following maintenance procedures shall be completed no less frequently than once every 300 hours of operation or at least once every 12 months, whichever comes first:
 - 1) Clean the inlet air filter (if so equipped);
 - 2) Change the oil filter; and
 - 3) Change the lubricating oil or conduct an oil analysis to determine Total Base Number, viscosity, and percent water content. The lubricating oil must be replaced within 2 business days after the analytical results are received if any of the following condemning limits are exceeded:
 - a) Total Base Number is less than 30% of the Total Base Number of the oil when new;
 - b) Viscosity of the oil has changed by more than 20% from the viscosity of the oil when

- new; or
- c) Percent water content (by volume) is greater than 0.5.
- ii. The following maintenance procedures shall be completed at least once every 12 months:
 - 1) Check the inlet air filter and replace as necessary;
 - 2) Check all fuel filters and clean as necessary (except cartridge type fuel filters);
 - 3) Check cartridge type fuel filters and replace as necessary;
 - 4) Check and adjust the intake and exhaust valves;
 - 5) Check spark plugs and ignition points and replace as necessary (if so equipped);
 - 6) Check and adjust the spark timing and dwell or fuel injection timing (if adjustable);
 - 7) Check and adjust the carburetor mixture (if adjustable);
 - 8) Check coolant and change as necessary (if so equipped); and
 - 9) Check the exhaust system and repair all leaks and/or restrictions.

[Rule 324 § 302] [Locally Enforceable Only]

21. Non-Resetting Totalizing Hour Meter:

- a. The Permittee shall install and operate a non-resetting totalizing hour meter for each stationary engine.
- b. If the non-resetting totalizing hour meter is found to be malfunctioning, the Permittee shall:
 - i. Record hours of operation daily until the function of the hour meter is restored; and
 - ii. Restore the function of the hour meter within two weeks. If it is not possible to restore the function of the hour meter within two weeks, the Permittee shall notify the Control Officer in writing and provide a schedule for restoration of the function of the hour meter

[Rule 324 § 306][40 CFR §§ 60.4209(a), 60.4237, 63.6625(f)]

22. Opacity:

- a. 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, except as specified in Permit Condition 24.e.
- b. Compliance with visible emissions shall be determined using the techniques specified in EPA Reference Method 9, 40 CFR 60, Appendix A.

[Rule 324 §§ 303, 503.8] [SIP Rule 324 §§ 303, 503.8]

23. New Source Performance Standards (NSPS):

- a. 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 40 CFR 60 Subpart IIII.
[40 CFR § 60.4200(a)(3)]
- b. If the Permittee modifies or reconstructs a stationary spark ignition (SI) internal combustion engine after June 12, 2006, that engine shall comply with all applicable requirements of 40 CFR 60 Subpart JJJJ.
[40 CFR § 60.4230(a)(5)]

24. Requirements for Stationary Compression Ignition (CI) Engines Subject to NSPS Subpart IIII:

*** this Condition may be applicable to emergency diesel engines ***

- a. Applicability: The following stationary engine are subject to NSPS Subpart IIII (Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines):
 - i. Any stationary CI engine that is not a fire pump engine that was ordered after July 11, 2005 and manufactured after April 1, 2006.
 - ii. Any CI fire pump engine ordered after July 11, 2005 and manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
 - iii. Any stationary emergency CI engine that was modified or reconstructed after July 11, 2005. [40 CFR § 60.4200(a)]
- b. Emission Standards: Stationary engines shall comply with the EPA emission standards in Table 1 or Table 2, as applicable, for the same maximum engine power category and model year:

Table 1: Emission Standards for Stationary Emergency CI Engines, Excluding Fire Pump Engines

Maximum Engine Power	Model Year	Emission Standard	Units are g/kW-hr (g/bhp-hr)				
			NMHC + NO _x	HC	NO _x	CO	PM
kW<8 (bhp<11)	Pre-2007	Tier 1	10.5 (7.8)	---	---	8.0 (6.0)	1.0 (0.75)
	2007	Tier 2	7.5 (5.6)	---	---	8.0 (6.0)	0.80 (0.60)
	2008+	Tier 4	7.5 (5.6)	---	---	8.0 (6.0)	0.40 (0.30)
8≤kW<19 (11≤bhp<25)	Pre-2007	Tier 1	9.5 (7.1)	---	---	6.6 (4.9)	0.80 (0.60)
	2007	Tier 2	7.5 (5.6)	---	---	6.6 (4.9)	0.80 (0.60)
	2008+	Tier 4	7.5 (5.6)	---	---	6.6 (4.9)	0.40 (0.30)
19≤kW<37 (25≤bhp<50)	Pre-2007	Tier 1	9.5 (7.1)	---	---	5.5 (4.1)	0.80 (0.60)
	2007	Tier 2	7.5 (5.6)	---	---	5.5 (4.1)	0.60 (0.44)
	2008+	Tier 4	7.5 (5.6)	---	---	5.5 (4.1)	0.30 (0.22)
37≤kW<75 (50≤bhp<100)	Pre-2007	Tier 1	---	---	9.2 (6.9)	---	---
	2007	Tier 2	7.5 (5.6)	---	---	5.0 (3.7)	0.4 (0.3)
	2008+	Tier 3	4.7 (3.5)	---	---	5.0 (3.7)	0.4 (0.3)
75≤kW<130 (100≤bhp<175)	Pre-2007	Tier 1	---	---	9.2 (6.9)	---	---
	2007+	Tier 3	4.0 (3.0)	---	---	5.0 (3.7)	0.30 (0.22)
130≤KW≤560 (175≤HP≤750)	Pre-2007	Tier 1	---	1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
	2007+	Tier 3	4.0 (3.0)	---	---	3.5 (2.6)	0.2 (0.15)

Table 2: Emission Standards for Stationary CI Fire Pump Engines

Maximum Engine Power	Model Year	Emission Standard	Units are g/kW-hr (g/bhp-hr)		
			NMHC + NO _x	CO	PM
kW<8 (bhp<11)	Pre-2011	Tier 1	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	Tier 4 ¹	7.5 (5.6)	---	0.40 (0.30)
8≤kW<19 (11≤bhp<25)	Pre-2011	Tier 1	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	Tier 4 ¹	7.5 (5.6)	---	0.40 (0.30)
19≤kW<37 (25≤bhp<50)	Pre-2011	Tier 1	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	Tier 4 ¹	7.5 (5.6)	---	0.30 (0.22)
	Pre-2011	---	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)

Maximum Engine Power	Model Year	Emission Standard	Units are g/kW-hr (g/bhp-hr)		
			NMHC + NO _x	CO	PM
37≤kW<75 (50≤bhp<100)	2011–2013 ²	---	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+	Tier 3 ¹	4.7 (3.5)	---	0.40 (0.30)
75≤kW<130 (100≤bhp<175)	Pre-2010	---	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010–2012 ²	---	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+	Tier 3 ¹	4.0 (3.0)	---	0.30 (0.22)
130≤kW<450 (175≤bhp)	Pre-2009	---	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009–2011 ²	---	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	Tier 3 ¹	4.0 (3.0)	---	0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	Pre-2009	---	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	Tier 3 ¹	4.0 (3.0)	---	0.20 (0.15)

¹These ratings are more stringent than required for fire pump engines but can be used to verify compliance with the emission standards.

²The emission standards for these specified model year ranges only apply to engines in the specified maximum engine power category that have a rated speed greater than 2,650 rpm.

[40 CFR § 60.4205]

c. Compliance Demonstration:

- i. Pre-2007 model year engines, excluding fire pump engines: The Permittee shall demonstrate compliance with the emission standards in Table 1 by one of the following;
 - 1) Purchasing an engine certified to the applicable emission standards for the same maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
 - 2) Keeping records of data from the engine manufacturer or control device vendor indicating compliance with the standards.
- ii. 2007 model year and later engines, excluding fire pump engines: Engines shall be certified by the manufacturer to meet the standards in Table 1 for the same maximum engine power category and corresponding model year.
- iii. Fire pump engines manufactured before the dates in Table 3: The Permittee shall demonstrate compliance with the emission standards in Table 2 by one of the methods listed in Subsection [c.i] of this Permit Condition:

Table 3: Certification Dates for Stationary CI Fire Pump Engines

Engine power	Starting model year new fire pump engines must be certified
kW<75 (bhp<100)	2011
75≤kW<130 (100≤bhp<175)	2010
130≤kW<185 (175≤bhp<250)	2009

- iv. Fire pump engines manufactured after the dates specified in Table 3 shall be certified by the manufacturer to meet the standards specified in Table 2 for the same maximum engine power category and corresponding model year.

[40 CFR § 60.4211]

d. Model Year 2008 and Later Stationary Engines less than 50 bhp:

- i. Crankcase emissions shall not be discharged directly into the ambient atmosphere unless such crankcase emissions are added to the exhaust emissions during all emission testing.
- ii. Stationary engines that have adjustable parameters must meet all the requirements of this Permit Condition for any adjustment in the physically adjustable range.
[40 CFR §§ 60.4202(a)(1)(ii), 60.4205(b), 1039.115]
- e. Opacity Standard: For 2007 model year and later CI engines, the Permittee shall not allow exhaust opacity to exceed 15% during the lugging mode. This restriction does not apply to engines designated fire pump engines.
[40 CFR §§ 60.4205, 60.4202, 1039.105]
- f. Opacity levels are to be measured and calculated as set forth in 40 CFR 86 Subpart I.
[40 CFR § 1039.501(c)]
- g. The Permittee shall operate and maintain the engine 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.
[Rule 324 § 302][40 CFR §§ 60.4211(a)(1), 60.4206]
- h. The Permittee shall only change those engine settings that are permitted by the manufacturer.
[40 CFR § 60.4211(a)]
- i. The Permittee shall meet the applicable requirements of 40 CFR 1068, including but not limited to the following:
 - i. Defeat Device: The Permittee shall not equip any engine with a defeat device.
 - ii. Tampering: The Permittee shall not remove or render inoperative any device or element of design installed on or in an engine in compliance with the regulations, except as allowed under 40 CFR 1068.101(b)(1)
[40 CFR § 60.4211(a)(3), 1068.101]

25. Requirements for Stationary Spark Ignition (SI) Engines Subject to NSPS Subpart JJJJ:

*** this Condition may be applicable to emergency gasoline, natural gas, propane or other LPG engines ***

- a. Applicability: The following engines are subject to NSPS Subpart JJJJ (Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines) and this Permit Condition:
 - i. Any emergency stationary SI engine that was ordered after June 12, 2006 and manufactured after January 1, 2009.
 - ii. Any emergency stationary SI engine that was modified or reconstructed after June 12, 2006.
 - iii. Any emergency stationary SI engine using alcohol-based fuels is considered a gasoline engine under NSPS Subpart JJJJ.
[40 CFR § 60.4230(a)]
- b. Emission Standards: Stationary SI engines shall be certified by the engine manufacturer to meet the following emission standards:
 - i. Stationary SI engines with a maximum engine power less than or equal to 25 bhp manufactured on or after July 1, 2008 or that have been modified or reconstructed after June 12, 2006 shall be certified to meet the emission standards and related requirements for non-handheld engines in Table 4. Engines with a date of manufacture prior to July 7, 2008 must comply with the emission standards specified in Table 4 applicable to engines manufactured on July 7, 2008.

Table 4: Certification Requirements for SI Engines ≤25 bhp

Engine Displacement	Manufacture Date	40 CFR 1054 Emission Standards
< 225 cc	7/1/08 - 12/31/11	Phase 2
	1/1/12 and later	Phase 3
≥ 225 cc	7/1/08 - 12/31/10	Phase 2
	1/1/11 and later	Phase 3

cc = cubic centimeters

[40 CFR §§ 60.4231(a), 60.4233(a)]

- ii. Gasoline and rich burn LPG engines with a maximum engine power greater than 25 bhp manufactured after January 1, 2009 or that have been modified or reconstructed after June 12, 2006 shall be certified to meet the emission standards and related requirements in Table 5. Engines with a date of manufacture prior to January 1, 2009 must comply with the emission standards specified in Table 5 applicable to engines manufactured on January 1, 2009.

Table 5: Certification Requirements for Gasoline and Rich Burn LPG Engines >25 bhp

Maximum Engine Power	Certification Requirement
25<bhp<130	Phase 1 emission standards in 40 CFR 1054, appendix I, applicable to class II engines
bhp≥130	40 CFR 1048
Alternative for SI engines 25<bhp≤40, total displacement ≤1,000 cc	40 CFR 1054

[40 CFR §§ 60.4231(b),(c); 60.4233(b),(c)]

- iii. SI engines with a maximum engine power greater than 25 bhp, excluding gasoline and rich burn LPG engines, shall be certified to meet the emission standards in Table 6. For engines with a maximum engine power greater than 100 bhp manufactured prior to January 1, 2011, that were certified to the standards in 40 CFR 1048 applicable to engines that are not severe duty engines, if such engine was certified to a CO standard above the standard in Table 6, the Permittee may meet the CO certification (not field testing) standard for which the engine was certified.

Table 6: Certification Requirements for SI Engines >25 bhp, Excluding Gasoline and Rich Burn LPG Engines

Maximum Engine Power	Manufacture Date	Emission Standards						
		(g/bhp-hr)				(ppmvd at 15% O ₂)		
		NO _x	CO	VOC	NO _x + HC	NO _x	CO	VOC
25<bhp<130	1/1/2009 and later	N/A	387	N/A	10	N/A	N/A	N/A
bhp≥130		2.0	4.0	1.0	N/A	160	540	86
25<bhp<130	Before 1/1/2009*	N/A	387	N/A	10	N/A	N/A	N/A
bhp≥130		3.0	4.0	1.0	N/A	250	540	86
25<bhp<100 alternative standard	1/1/2009 - 12/31/2010	2.0	4.0	1.0	N/A	160	540	86

* Natural gas & lean burn LPG engines modified or reconstructed after June 12, 2006

[40 CFR § 60.4233(d),(e),(f)(4); Table 1 to NSPS Subpart JJJJ]

- c. The Permittee shall operate and maintain the certified SI engine according to the manufacturer's emission-related written instructions.
- d. The Permittee shall meet the requirements as specified in 40 CFR 1068, Subparts A through D, as they apply.

[40 CFR § 60.4243(a)(1)]

- e. The Permittee shall not install SI engines with a maximum engine power:
 - i. Equal to or less than 25 bhp that do not meet the applicable requirements in 40 CFR 60.4233 after July 1, 2010;
 - ii. Greater than 25 bhp that do not meet the applicable requirements in 40 CFR 60.4233 after January 1, 2011;
 - iii. These installation dates do not apply to SI engines that have been reconstructed, nor to engines that have been removed and reinstalled at a new location.

[40 CFR § 60.4236]

26. Requirements for Stationary Engines Subject to 40 CFR 63 Subpart ZZZZ:

*** this Condition is applicable to older stationary engines ***

- a. Applicability: The requirements of 40 CFR 63 Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants [NESHAP] for Stationary Reciprocating Internal Combustion Engines (RICE) and this Permit Condition apply to each stationary RICE that was ordered by the original owner prior to June 12, 2006, except for the following:
 - i. Emergency engines subject to NSPS Subpart IIII, as specified in Permit Condition 24.a.
 - ii. Emergency engines subject to NSPS Subpart JJJJ, as specified in Permit Condition 25.a.
 - iii. Residential, commercial, and institutional emergency engines, as listed in the EPA memorandum "Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE," August 9, 2010.
 - iv. Stationary engine that is tested at a stationary test cell/stand.
 - v. Stationary engine that is used for national security purposes.

[40 CFR §§ 63.6585; 63.6590]

b. Operating Requirements:

- i. The Permittee shall operate and maintain all 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]

- ii. The Permittee shall 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), Table 6(9)]

- iii. 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.

[40 CFR § 63.6625(h)]

- c. Maintenance Schedule: The Permittee shall comply with the following for each engine subject to this Permit Condition. For engines maintained in accordance with the schedule in Permit Condition 20.c, the Permittee shall comply with the most stringent maintenance requirements and frequency:
- 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 follow:
- 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 (compression ignition only);
- iii. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary (spark ignition only);
- iv. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 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 management practice requirements 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. 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.

[40 CFR § 63.6603(a), Table 2d(4)]

27. Recordkeeping:

- a. The Permittee shall maintain the following records 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. A list of all stationary engines that includes all of the following information for each stationary engine: combustion type (compression-ignition, or lean-burn spark-ignition, or rich-burn spark-ignition); manufacturer; model designation, rated bhp, serial number, and the location of each engine at the facility. If the equipment list associated with the current permit includes all of the required information for each stationary engine, this requirement may be fulfilled by keeping a complete copy of the current permit, including the equipment list, in a readily accessible location at the facility where the engines are located.

[Rule 324 § 502.1] [SIP Rule 324 § 502.1]

- ii. Monthly rolling twelve-month total of hours of operation, including:
 - 1) Monthly and annual hours of operation for reliability related activities such as engine readiness, calibration, or maintenance, or to prevent the occurrence of an unsafe condition during electrical system maintenance; and
 - 2) The number of operating hours for emergency use and an explanation for the emergency use.

[Rule 324 § 502.2] [SIP Rule 324 § 502.4]

- iii. Fuel type and sulfur content of fuel.
[Rule 324 § 502.4] [SIP Rule 324 § 502.4(b)] [40 CFR §§ 60.4214(b), 60.4245(b), 63.6655(f)]

- iv. Fuel-Sulfur Verification:

- 1) Diesel, Natural Gas, or LPG: One of the following documents listing the accurate sulfur content of the fuel based on enforceable test methods as approved by the Administrator to determine the sulfur content:
 - a) Fuel receipts
 - b) Contract specifications
 - c) Pipeline meter tickets
 - d) Fuel supplier information
 - e) Purchase records; or
 - f) Test results of the fuel for sulfur content.

[Rule 324 § 501.5][SIP Rule 324 § 501.3]

- 2) Gasoline: Documentation that gasoline was purchased within the United States.

[Rule 324 §§ 501.5, 502.4][Locally Enforceable Only]

- v. Maintenance records of all stationary engines, including:

- 1) The date when maintenance was performed;
- 2) The maintenance procedures that were performed and corresponding hours on the hour meter; and
- 3) One of the following documents, as applicable, which shall be available at all times at the facility where the stationary engine is located:
 - a) The manufacturer's written instructions for operation and maintenance;
 - b) A written maintenance schedule provided by the manufacturer's authorized service provider; or
 - c) A written maintenance plan indicating which of the tuning procedures listed in Permit Condition 20 are applicable to the stationary engine.

[Rule 324 §§ 502.3, 502.5] [40 CFR § 60.4245(a)(2)] [40 CFR §§ 63.6655(e), 63.6660]

- b. The Permittee shall maintain a copy of the manufacturer's data for each engine subject to NSPS Subpart IIII or NSPS Subpart JJJJ (see Conditions 24.a and 25.a) indicating compliance with the standards in this Permit.

[SIP Rule 220 § 302.7][40 CFR §§ 60.4211(b)(3), 60.4245(a)(3)]

28. Reporting:

- a. Deviations from Stationary Engine Maintenance Schedule:
The Permittee shall report any failure to perform a maintenance operation on the schedule required by Permit Condition 26.c 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 § 63.6640(b)]

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

[Rule 130 § 402][Locally Enforceable Only]

PARTICULATE MATTER FROM FUGITIVE AND PROCESS SOURCES**29. Applicability:**

- a. The provisions of this Permit Section apply to all dust-generating operations except for those dust-generating operations listed in the Condition below. Any person engaged in a dust-generating operation subject to this Permit Section shall be subject to the standards and/or requirements of this Permit Section before, after, and while conducting such dust-generating operation, including during weekends, after work hours, and on holidays.
- b. For the purpose of Rule 310 (Fugitive Dust Sources), any control measure that is implemented must achieve the applicable standard(s) described in Rule 310, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in Rule 310.
- c. Regardless of whether a dust-generating operation is in compliance with an approved Dust Control Plan or there is no approved Dust Control Plan, the owner and/or operator of a dust-generating operation shall be subject to all requirements of Rule 310 at all times.
- d. Failure to comply with the provisions of these requirements, as applicable, and/or of an approved Dust Control Plan, shall constitute a violation.

[SIP Rule 310 §§ 102, 301]

30. Exemptions:

The provisions of this Permit Section shall not apply to the following activities:

- a. Emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.
- b. Establishing of initial landscapes without the use of mechanized equipment or conducting landscape maintenance without the use of mechanized equipment. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading or trenching performed to establish initial landscapes or to redesign existing landscapes.

[SIP Rule 310 § 103]

31. Emission Limitation:

- a. The Permittee shall not discharge or cause or allow the discharge of particulate matter (PM) emissions into the ambient air from material handling in excess of the allowable hourly emission rate determined by either of the following equations, whichever applies:

i. $E = 3.59 P^{0.62}$ (P, material handling \leq 30 tons/hr)

ii. $E = 17.31 P^{0.16}$ (P, material handling $>$ 30 tons/hr)

Where:

E = Maximum allowable PM emissions in pounds per hour, and

P = Process weight (material handling) rate in tons per hour.

- b. The total process weight from all similar operations at the facility shall be used for determining the maximum allowable PM emission rate.

[Rule 311 §§ 301, 302] [SIP Rule 31 §§ 6B.1.a, 6B.3.c]

32. Emission Control System (ECS):

If the Permittee cannot comply with the emission limitation of Permit Condition 31 without the use of an ECS, the Permittee shall apply for a Non-Title V permit.

[Rule 311 § 304] [SIP Rule 241 § 302]

33. Dust Control Plan Requirements:

- a. The owner and/or operator of a dust-generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve dust-generating operations with a disturbed surface area that equals or exceeds 0.10 acre (4,356 ft²) before commencing any routine dust-generating operation. The Dust Control Plan shall be kept available onsite at all times.

- b. The Permittee shall comply with the requirements of the Dust Control Plan and the provisions of MCAQD Rule 310, Sections 301 – 310 at all times.

[SIP Rule 310 §§ 301-310, 409]

34. Visible Emission Requirements for Dust-Generating Operations:

- a. The Permittee shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.
- b. The Permittee shall not cause or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined by using EPA Reference Method 22. This requirement does not apply to dust-generating operations conducted within 25 feet of the property line.

[SIP Rule 310 § 303.1]

35. Exemptions from Dust-Generating Operation Opacity Limitation Requirement:

- a. If wind conditions cause fugitive dust emissions to exceed the opacity requirements in this permit, despite implementation of the Dust Control Plan, the Permittee shall:
- Ensure that all control measures and requirements of the Dust Control Plan are implemented and the subject violations cannot be prevented by better application, operation, or maintenance of these measures and requirements.
 - Cease dust-generating operations and stabilize any disturbed surface area consistent with the Stabilization Requirements of these conditions.
 - Compile records consistent with the recordkeeping requirements of these Permit Conditions and document the control measure and other Dust Control Plan requirements implemented.

- b. Emergency Maintenance of Flood Control Channels and Water Retention Basins: The opacity limit shall not apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.

[SIP Rule 310 § 303.2]

36. Stabilization Requirements for Dust-Generating Operations:

- a. Unpaved Parking Lot: The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity and shall not allow silt loading equal to or greater than 0.33 oz/ft². However, if silt loading is equal to or greater than 0.33 oz/ft², then the owner and/or operator shall not allow the silt content to exceed 8%. An unpaved parking lot includes any area that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment

[SIP Rule 310 §§ 232, 304.1]

- b. Disturbed Surface Area: The owner and/or operator of any disturbed surface area on which no activity is occurring shall meet at least one of the standards described in MCAQD Rule 310, Section 304.

[SIP Rule 310 § 304]

37. Control Measures for Dust-Generating Operations:

For dust-generating operations with a disturbed surface area less than 0.10 acre, the owner and/or operator shall install, maintain, and use control measures, as applicable. Control measures for specific dust-generating operations are described in MCAQD Rule 310, Section 305. The owner and/or operator of a dust-generating operation shall implement control measures before, after, and while conducting dust-generating operations, including during weekends, after work hours, and on holidays.

[SIP Rule 310 § 305]

38. Trackout, Carry-Out, Spillage, and/or Erosion:

The owner and/or operator of a dust-generating operation shall prevent and control trackout, carry-out, spillage, and/or erosion in accordance with MCAQD Rule 310, Section 306.

[SIP Rule 310 § 306.2]

39. Dust Control Plan Revisions:

For dust-generating operations with a disturbed surface area equal to or greater than 0.10 acre:

- a. If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust-generating operation still exceed the standards of this Permit, the Control Officer shall issue a written notice to the owner and/or operator of the dust-generating operation explaining such determination. The owner and/or operator of a dust-generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this Permit.

[SIP Rule 310 § 403.1]

- b. The Permittee shall request a Dust Control Plan revision with a submittal in the manner and form prescribed by the Control Officer if:
- i. The acreage of a project changes;
 - ii. The permit holder changes;
 - iii. 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

- iv. If the activities related to the purposes for which the Dust Control permit was obtained change. [SIP Rule 310 § 403.2]

40. Recordkeeping:

The Permittee shall maintain the following records for the time period specified in Condition 41 and make them available to the Control Officer upon request:

- a. For dust-generating operations with a disturbed surface area equal to or greater than 0.10 acre, the Permittee shall keep a written record of self-inspection on each day dust-generating operations are conducted. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage, and dust suppressant application. Such written record shall also include the following information:
 - i. Method, frequency, and intensity of application or implementation of the control measures;
 - ii. Method, frequency, and amount of water application to the site;
 - iii. Street sweeping frequency;
 - iv. Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;
 - v. Types and results of test methods conducted;
 - vi. If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;
 - vii. List of subcontractors' names and registration numbers updated when changes are made; and
 - viii. Names of employee(s) who successfully completed dust control training class(es), date of the class(es) that such employee(s) successfully completed, and name of the agency/representative who conducted such class(es).

[SIP Rule 310 § 502.1]

- b. For dust-generating operations with a disturbed surface area less than 0.10 acre, the Permittee shall compile and retain records (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps) that provide evidence of control measure application, by indicating the type of treatment or control measure, extent of coverage, and date applied.

[SIP Rule 310 § 502.1]

- c. Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided as soon as possible but no later than 48 hours after the request, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

[SIP Rule 310 §§ 502.3]

41. Records Retention:

- a. For dust-generating operations with a disturbed surface area equal to or greater than 0.10 acre, the Permittee shall retain copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation for at least six months following the termination of the dust-generating operation and for at least two years from the date such records were initiated.

[SIP Rule 310 § 503]

- b. For dust-generating operations with a disturbed surface less than 0.10 acre, the Permittee shall retain records required by this rule for at least five years from the date such records are established.

[Rule 100 § 504][Locally Enforceable Only]

GENERAL CONDITIONS

42. Coverage under the General Permit:

Any facility shall be eligible for coverage under this General Permit if the facility meets the requirements specified in the Specific Conditions Section of this Permit and completes an Application for the Authority to Operate and/or Construct. However, if the facility does not meet the provisions of the Specific Conditions Section, the operation will be considered ineligible for coverage and the applicant may be required by the Control Officer to obtain an individual source permit.

[Rule 230 § 303][Locally Enforceable Only]

43. Revocation of the Authority to Operate under this General Permit:

If the Permittee is notified by the Control Officer of the revocation of the Authority to Operate under this General Permit because of expiration, termination, or cancellation, the Permittee must file an application for an individual source permit. The application for an individual source permit must be filed within 180 days of receiving the notice from the Control Officer. The Permittee may continue to operate under this General Permit until the earlier of either

- a. The date that it submits a complete application for an individual source permit, or
- b. The date 180 days after receipt of the notice of expiration, termination, or cancellation.

[Rule 230 § 311][Locally Enforceable Only]

44. Posting of Permit:

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

[SIP Rule 200 § 312]

45. 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.

[SIP Rule 200 §§ 309, 310.3] [SIP 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.

[SIP Rules 200 § 310.4, 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.

[SIP Rule 220 § 302.10][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.

[SIP 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.

[SIP Rule 200 § 409] [A.R.S. 49-480(D)][Rule 280 § 302]

46. 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.

[SIP Rule 140][Rule 130 §§ 201, 400]

47. 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.

[SIP Rule 220 § 302.11]

48. Reporting:

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, and ARS § 49-480.03.

[Rule 100 § 505] [SIP Rule 40]

49. 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.

[SIP Rule 100 § 106] [SIP Rule 220 § 302.13]

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.

[SIP Rule 220 §§ 301.5, 301.6]

50. Certification of Truth, Accuracy, and Completeness:

Any document that is required to be submitted by this General Permit, including reports, shall contain a certification by the facility owner, or other responsible official as defined in County Rule 100 § 200.110, of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[SIP Rule 100 § 401] [SIP Rule 220 § 302.14]

51. Facility Changes Requiring an Individual Source Permit:

a. The following changes shall only be made after the Permittee obtains an individual source permit:

- i. A change that triggers a new applicable requirement, violates an existing applicable requirement, or violates any of the Specific Conditions of this Permit.

- ii. A change that will require a case-by-case determination of an emissions limitation.
- iii. A change that will result in the burning of any fuel that is not currently authorized by this permit.

[SIP Rule 200 § 301]

- b. Coverage under this General Permit shall terminate on the date the individual source permit is issued.

[Rule 230 § 307][Locally Enforceable Only]

52. Facility Changes Allowed:

- a. The Permittee may make the following changes at the facility only after providing written notification to the Control Officer at least 30 days before the change and only if such changes do not require the Permittee to obtain an individual source permit:
 - i. Adding new emissions units.
 - ii. Installing a replacement emissions unit.
 - iii. Adding or replacing air pollution control equipment.
- b. The written notification shall include the following:
 - i. When the proposed change will occur;
 - ii. A description of the change; and
 - iii. Any change in emissions of regulated air pollutants.
- c. The Permittee shall keep a record of any physical change or change in the method of operation that could affect emissions. The record shall include a description of the change and date the change occurred.

[Rule 230 § 312][Locally Enforceable Only]

53. 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 A.R.S. 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. Record any inspection by use of written, electronic, magnetic, and photographic media.

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

54. 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.

[SIP Rule 220 § 302.9]