

MARICOPA COUNTY AIR QUALITY DEPARTMENT
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)

ARIZONA
for
WASTEWATER TREATMENT PLANTS

*This general 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.

ISSUANCE DATE: 03/01/2017 EXPIRATION DATE: 08/31/2021

Philip McNeely, Director, Maricopa County Air Quality Department

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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.

SPECIFIC CONDITIONS

WASTEWATER TREATMENT PLANTS (WWTP)

1. General Permit Eligibility:

- a. WWTP eligible for this General Permit may include drinking water processes such as; micro filtration; marsh or wetland filtration; reverse osmosis; microbial denitrification; ozone and UV treatment. However, "stand-alone" drinking water plants (not attached to a WWTP) which do not accept raw sewage are not eligible for this General Permit.
- b. WWTP with the following equipment types or processes may not be constructed or operated under this General Permit; bio-gas and waste gas combustors such as flares, engines or thermal oxidizers; fuel burning equipment.

[Rule 220 §302.2] [Rule 241 §§ 304-305; 308]
[Rule 230 §302.3] [Rule 320 §304] [SIP Rule 32.E]

2. Opacity:

Except as indicated elsewhere in these Permit Conditions, the Permittee shall comply with the following requirements for 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.
- 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.
- c. Opacity 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]

3. Standards:

- a. Limitation – Hydrogen Sulfide (H₂S): The Permittee shall not emit H₂S in such a manner or amount that the concentration of such emissions into the ambient air beyond the fence, borderline, boundary or property line that exists between two separate properties exceeds 0.03 parts per million by volume (ppmv) for any averaging period of 30 minutes or more.

[Rule 320 §304] [SIP Rule 32.E]

- b. Emission Control System (ECS) Required:

- i. If needed to meet the H₂S limitation in Subsection 3 above, the Permittee shall vent sulfurous gases, vapors and gas entrained effluents without bypass to a scrubbing or filtration system capable of removing sulfurous compounds. Typical ECS which qualify include:

- 1) Wet or packed bed scrubbers;
- 2) Use of chemical deodorizers such as sodium hydroxide or sodium hypochlorite;
- 3) Carbon adsorption systems.

- ii. The Permittee shall properly install, operate, and maintain in calibration and in good working order, devices for indicating temperatures, pressures, transfer rates, rates of flow, or other operating conditions necessary to determine if the required ECS is functioning properly and is properly maintained as described in an approved Operation and Maintenance (O&M) Plan, in accordance with Permit Condition 6.

[Rule 320 §304] [SIP Rule 32.E]

4. Compliance Demonstration:

- a. The Permittee shall perform a compliance demonstration by conducting a test to monitor H₂S levels within 90 days of any of the following events:
 - i. Being issued a Permit under this General Permit,
 - ii. At the time of renewal of this General Permit,
 - iii. The start-up of new ECS equipment,
 - iv. The reception of a written request from the Control Officer.
- b. The compliance demonstration shall be performed using a handheld air analyzer with a suitable range (3.0 ppb – 10.0 ppm H₂S).
- c. The compliance demonstration shall be performed at a location representing the nearest point beyond the fence, borderline, boundary or property line that exists separating the premises on which the source of H₂S is located, from other premises, parcels or properties.
- d. Newly Permitted Sources or Sources with Newly Permitted ECS: The Permittee shall perform an additional compliance demonstration within six (6) months of completing the initial demonstration. If the average H₂S concentration is less than 0.03 ppmv in any of the first two demonstrations, the monitoring shall be subsequently conducted every five years, with each permit renewal.
- e. The Permittee shall submit a report within 30 days of completion of each demonstration to the Control Officer, Attn: Compliance Division Manager that details the results of each compliance demonstration.

[Rule 220 §302.4] [Rule 320 §304] [Locally Enforceable Only]

5. Compliance Plan:

- a. In the event of an exceedance of the H₂S limitation of Permit Condition 3.a, as demonstrated by the H₂S compliance demonstration of Permit Condition 4, the Permittee shall comply with all of the following;
 - i. Submit an application for a Non-Title V permit to the Control Officer.
 - ii. Submit a Compliance Plan to Control Officer (Attn: Compliance Manager), which shall include:
 - 1) Technological evaluation of ECS or additional ECS,
 - 2) Additional monitoring and/or air dispersion modeling to determine property line concentration of H₂S based on the implementation of selected ECS or ECS additions,
 - 3) Conceptual design and preliminary cost estimate for the proposed ECS or ECS additions.
 - 4) Schedule for design and construction of the proposed ECS or ECS additions, and
 - 5) Description of recommended actions.
 - iii. Conduct the H₂S monitoring described in Permit Condition 4 semi-annually until two consecutive demonstrations show H₂S concentrations below 0.03 ppmv.
- b. The Permittee shall complete and submit the permit application and compliance plan to the Control Officer within 120 days of exceeding the H₂S emission limitation. Both submittals shall be subject to review by the Control Officer prior to approval.

[Rule 220 §303] [Locally Enforceable Only]

6. Operation and Maintenance (O&M) Plan Requirements:

- a. Unless an O&M Plan has been previously submitted and approved, the Permittee shall submit an O&M Plan for each ECS and each ECS monitoring device required under Permit Condition 3.b to the Control Officer for approval within 45 days of the initial issuance of this permit, or within 45 days of its startup.
- b. The Permittee shall comply with all identified actions and schedules of the approved O&M Plan and shall revise the O&M Plan upon the request of the Control Officer and whenever substantive changes are made to the ECS or associated monitoring equipment.
- c. The O&M Plan shall specify key system operating parameters, such as temperatures, pressures and/or flow rates, necessary to determine compliance and describe in detail procedures to maintain the approved emission control system. The Permittee shall monitor, operate and maintain the equipment in accordance with the device's approved O&M Plan. At a minimum the plan shall include:
 - i. Wet Scrubber: Scrubber system pressure drop, water recirculation rate, pH level and conductivity, as applicable.
 - ii. Carbon Adsorption System: Adsorption temperature, desorption temperature and effluent concentration.
- d. Changes to an existing O&M Plan shall be made by submitting a complete, revised O&M Plan along with a cover letter identifying all changes and the reason for such changes. The Permittee may implement the changes addressed in the revised O&M plan after it submits the revision to the Control Officer. Unless disapproved in writing by the Control Officer, the Permittee shall continue to operate in accordance with the revised O&M plan.
- e. If any control device is found to be operating outside a specified range, the Permittee shall immediately take corrective action to bring the device back into the specified operating range or shut down the device and the associated equipment vented to it.
- f. If a pattern of excursions, as determined by the Control Officer or the Permittee, of operation outside the specified operating range develops, the Permittee shall submit for Department approval a Corrective Action Plan to bring the devices back into the specified operating range. The Plan shall be submitted to the Control Officer, Attn: Compliance Manager, within 30 days of the determination of the existence of excursions.
- g. Records for all required ECS shall be maintained and provided in accordance with Permit Condition 7.
[Rule 220 §302.4] [Rule 320 §304]

7. Record Keeping:

The Permittee shall keep the following records on site and available upon request. The records shall be retained for 5 years.

- a. The Permittee shall maintain records of any process upsets that would cause the release of H₂S or other waste gases into the atmosphere. Examples of such upsets would include failure of the blowers in the recirculation of gases in the aeration process or a catastrophic failure of the biological reactor responsible for H₂S removal.
- b. The Permittee shall retain all records pertaining to the repairs and schedules required to restore the treatment process after upset. The Permittee shall retain records of the operational parameter tests used to ensure proper operation of the process.
- c. Monitoring and maintenance records specified in the O&M Plan:
 - i. Monitoring Records shall consist of an operations log sheet to be completed for every day the process and/or control device is in operation. Operations log sheets shall, at a minimum, contain the following information: equipment identification; date and time of readings; identification of the individual recording the data; operating parameters to be monitored including units of measure, operating limits (upper and lower limits), and locations for recording measurements; measurement frequency; and if applicable, corrective action taken. An explanation shall be recorded for any periods of operation when the control device was not operating.

- ii. Maintenance Records shall, at a minimum, contain the following information: equipment identification; date; identification of the individual performing the maintenance check; procedures to be performed including frequency of occurrence; results of inspection; and corrective action taken.
- d. Whenever the O&M Plan requires that maintenance be performed, a record shall be made of the maintenance actions taken within 24 hours of maintenance completion.
- e. Daily records of the O&M Plan's key system operating parameters. Account for any periods of operation when the control device was not operating.
- f. An explanation shall be recorded for any scheduled maintenance that is not performed during the period designated in the O&M Plan.
- g. Records of the compliance demonstration results performed in accordance with Permit Condition 4.
[Rule 220 §§ 302.7, 500] [Rule 100 §504] [Locally Enforceable Only]

STATIONARY EMERGENCY INTERNAL COMBUSTION ENGINES (ICE)

8. Operating Restrictions:

- a. Only emergency ICE at a wastewater treatment plant (WWTP) may be constructed and operated under this General Permit.
- b. The total combined rating of all stationary ICE shall not exceed 2,550 brake horsepower (bhp).
[Rule 230 §301] [Rule 220 §302.2] [Rule 241 §302]
- c. The Permittee shall limit the operation of the emergency engine(s) to no more than 100 hours each per calendar year for the purposes of maintenance checks and readiness testing.
[Rule 324 §§ 104.5, 205] [SIP Rule 324 §§ 104.5, 205]
[40 CFR §§ 60.4211(f)(2); 60.4243(d); 63.6640(f)(2)]
- d. The Permittee shall limit the total hours of operation of each ICE to no more than 500 hours per any twelve consecutive months, including no more than 100 hours per calendar year for the purpose of maintenance checks and readiness testing.
[Rule 324 §205] [SIP Rule 324 §205]
- e. Stationary ICE shall not be used for peak shaving. Stationary ICE 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;
 - 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)]

9. Fuel Requirements:

- a. The Permittee shall not burn any fuel containing more than 15 ppm sulfur in any ICE.
- b. Additional fuel requirements for compression ignition (CI) ICE subject NSPS Subpart IIII are specified in Permit Condition 15.
[Rule 324 §301.1] [40 CFR §§ 60.4207(a,b); 80.510(c)(1)]

- c. The Permittee shall only operate stationary spark ignition (SI) ICE using gasoline, natural gas, propane or other liquefied petroleum gas (LPG)
[Rule 220 §302.2]
- d. Engines that burn gasoline must meet gasoline sulfur standards of 30 ppm per gallon as a refinery or importer average and 80 ppm per gallon as a per-gallon cap.
[40 CFR §§ 60.4235, 80.195]

10. Monitoring:

The Permittee shall install a non-resettable totalizing hour meter prior to startup of each engine. If the non-resetting totalizing hour meter is found to be malfunctioning, operation of the engine shall cease until corrective action(s) can be implemented or the function of the meter is restored

[Rule 324 §308] [40 CFR §§ 60.4209; 63.6625(f)]

11. Opacity Limitations:

- a. Unless otherwise stated in Permit Condition 17, the Permittee shall not discharge into the ambient air from any single source of emissions any air contaminate (including non-road engines), other than uncombined water, in excess of 20% opacity.
- b. Compliance with visible emissions shall be determined using the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A.

[SIP Rule 324 §§ 303, 503.8]

REQUIREMENTS FOR STATIONARY ICE SUBJECT TO NSPS SUBPART III

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

12. Applicability:

The following stationary ICE are subject to NSPS Subpart III: Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines

- a. Any stationary CI ICE that is not a fire pump engine that was ordered after July 11, 2005 and manufactured after April 1, 2006.
- b. 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.
- c. Any stationary emergency CI ICE that was modified or reconstructed after July 11, 2005.

[40 CFR 60.4200(a)]

13. Emission Standards:

Stationary ICE 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, Excludes Fire Pump Engines

Maximum Engine Power	Model Year	Nonroad Engine Rating	Units are g/kW-hr (g/bhp-hr)				
			NMHC + NOx	HC	NOx	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≤bhp≤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)
kW>560 (bhp>750)	Pre-2007	Tier 1		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
	2007+	Tier 2	6.4 (4.8)			3.5 (2.6)	0.2 (0.15)

Table 2: Emission Standards for Stationary CI Fire Pump Engines

Maximum Engine Power	Model Year	Nonroad Engine Rating	Units are g/kW-hr (g/bhp-hr)		
			NMHC + NOx	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 4i ¹	7.5 (5.6)		0.30 (0.22)
37≤kW<75 (50≤bhp<100)	Pre-2011	---	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	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<600)	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≤bhp≤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)
kW>560 (bhp>750)	Pre-2008	---	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	Tier 2 ¹	6.4 (4.8)		0.20 (0.15)

¹ These ratings are more stringent than required for fire pump engines since they include CO standards. They can still be used by engineers to verify compliance with the emission standards.

² The 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]

14. Compliance Demonstration:

- a. 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:
 - i. 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
 - ii. Keeping records of data from the engine manufacturer or control device vendor indicating compliance with the standards.
- b. 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.
- c. 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 [a] 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

- d. Fire pump engines manufactured after the dates specified in Table 3, above 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]

15. Fuel Standards:

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(a,b); 80.510(c)(2)]

16. Model Year 2008 and Later Stationary ICE less than 50 bhp:

- a. Stationary ICE less than 50 bhp that have adjustable parameters must meet all the requirements of this permit for any adjustment in the physically adjustable range.
- b. The Permittee shall not equip any ICE with a defeat device.

[40 CFR §§ 60.4202(a)(1)(ii); 60.4205(b); 1039.115]

17. Additional NSPS Subpart III Requirements:

- a. Opacity Standard: For 2007 model year and later CI ICE, 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.
- b. Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I.
- c. Crankcase emissions: Naturally aspirated engines shall not discharge crankcase emissions into the ambient atmosphere, unless such crankcase emissions are permanently routed into the exhaust and included in all exhaust emission measurements. This provision does not apply to engines using turbochargers, pumps, blowers, or superchargers for air induction.

[40 CFR §§ 60.4205, 60.4202, 89.113(a)(2)]

[40 CFR 89.113(b)(2)]

[40 CFR §§ 60.4205; 89.112(e); 1039.115(a)]

- d. 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. [40 CFR §§ 60.4211(a); 60.4206]
- e. The Permittee shall only change those engine settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]
- f. The Permittee shall meet the requirements of 40 CFR Part 89 as it applies. [40 CFR 60.4211(a)]

REQUIREMENTS FOR STATIONARY ICE SUBJECT TO NSPS SUBPART JJJJ

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

18. Applicability:

The following engines listed below are subject to NSPS Subpart JJJJ: Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines and this permit Section:

- a. Any emergency stationary SI ICE that was ordered after June 12, 2006 and manufactured after January 1, 2009.
- b. Any emergency stationary SI ICE that was modified or reconstructed after June 12, 2006.
- c. Any emergency stationary SI ICE using alcohol-based fuels is considered a gasoline engine under NSPS Subpart JJJJ.

[40 CFR 60.4230(a)]

19. Emission Standards:

Stationary SI ICE shall be certified by the engine manufacturer to meet the following emission standards:

- a. Stationary SI ICE 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 7/1/08 must comply with the emission standards specified in Table 4 applicable to engines manufactured on 7/1/08.

Table 4: Certification Requirements for SI ICE ≤25 bhp

Engine Displacement	Manufacture Date	Emission Standards
< 225 cc	7/1/08 -- 12/31/11	40 CFR Part 90
	1/1/12 and later	40 CFR Part 1054
≥ 225 cc	7/1/08 -- 12/31/10	40 CFR Part 90
	1/1/11 and later	40 CFR Part 1054

cc = cubic centimeters

- b. 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 1/1/09 must comply with the emission standards specified in Table 5 applicable to engines manufactured on 1/1/09.

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

Maximum Engine Power	Requirement
25<bhp<130	Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines
bhp≥130	40 CFR Part 1048
Alternative for SI ICE 25<bhp≤40, total displacement ≤1,000 cc	40 CFR part 90 or 1054, as appropriate

- c. SI ICE 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 1/1/2011, that were certified to the standards in 40 CFR Part 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 standard for which the engine was certified.

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

Maximum Engine Power	Manufacture Date	Emission Standards						
		(g/bhp-hr)				(ppmvd at 15% O ₂)		
		NOx	CO	VOC	NOx + HC	NOx	CO	VOC
25<bhp<130	1/1/2009	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<100 alternative standard	1/1/2009 -- 12/31/2010	2.0	4.0	1.0	N/A	160	540	86

- d. Natural gas and lean burn LPG engines with a maximum engine power:
 - i. Greater than 25 bhp but less than 130 bhp that were manufactured prior to 1/1/2009 and modified or reconstructed after 6/12/06 shall comply with the emission standards in Table 6;
 - ii. Equal to or greater than 130 bhp that were manufactured prior to 1/1/2009 and modified or reconstructed after 6/12/06 shall comply with the emission standards in Table 7.

Table 7: Emission Standards for Modified & Reconstructed Natural Gas & Lean Burn LPG ICE ≥130 bhp

Maximum Engine Power	Emission Standards					
	(g/bhp-hr)			(ppmvd at 15% O ₂)		
	NOx	CO	VOC	NOx	CO	VOC
bhp≥130	3.0	4.0	1.0	250	540	83

[40 CFR 60.4233] [40 CFR §§ 90.103; 1054.103, 105]

20. Additional Requirements:

- a. The Permittee shall operate and maintain the certified SI ICE according to the manufacturer’s emission-related written instructions.
- b. The Permittee shall meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply.

[40 CFR 60.4243(a)]
- c. The Permittee shall not install SI ICE 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 ICE that have been reconstructed, nor to second hand engines or engines that have been removed and reinstalled at a new location.

[40 CFR 60.4236]

REQUIREMENTS FOR STATIONARY ICE SUBJECT TO 40 CFR PART 63, SUBPART ZZZZ

*** this section may be applicable to older SI and CI emergency engines ***

21. Applicability:

The requirements of 40 CFR Part 63 Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) and this Permit Section apply to each stationary RICE that was ordered by the original owner prior to June 12, 2006, except for the following:

- a. Emergency RICE subject to 40 CFR Part 60 Subpart III.
- b. Emergency RICE subject to 40 CFR Part 60 Subpart JJJJ.
- c. Stationary RICE that is tested at a stationary test cell/stand.
- d. Stationary RICE that is used for national security purposes.

[40 CFR §§ 63.6585; 63.6590]

22. Operating Requirements:

- a. 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]

- b. 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)]

- c. 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)]

23. Maintenance Schedule:

The Permittee shall comply with the following for each engine subject to this Permit Section:

- a. 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:
 - i. Total Base Number is less than 30 percent of the Total Base Number of the oil when new;
 - ii. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new;
 - iii. 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.

- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- d. 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)]

STATIONARY EMERGENCY ICE RECORDKEEPING AND REPORTING REQUIREMENTS

24. Record Keeping:

- a. The Permittee shall maintain the following records for all stationary ICE for a period of five years:
 - i. An initial one time entry listing the particular engine combustion type (compression or spark-ignition or rich or lean burn); manufacturer; model designation; rated brake horsepower; serial number, and; where the engine is located on the site.
 - ii. Monthly rolling twelve month total of hours of operation, including hours of operation for testing, reliability and maintenance.
 - iii. Fuel type and sulfur content of fuel. The Permittee shall maintain 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 as evidence of compliance.
 - iv. An explanation for the use of the engine if it is used as an emergency engine.
[Rule 220 §302.7] [SIP Rule 324 §§ 502.1; 502.4] [40 CFR §§ 60.4214(b); 60.4245(b); 63.6655(f)]
- b. The Permittee shall maintain records of all maintenance performed on the engines subject under Permit Condition 18 (NSPS JJJJ), as applicable.
[40 CFR 60.4245(a)(2)]
- c. The Permittee shall maintain a copy of manufacturer data for each engine subject under Permit Conditions 12 or 18 (NSPS IIII or JJJJ) indicating compliance with the emission standards contained in this Permit, as applicable.
[Rule 220 §302.7] [40 CFR §§ 60.4211(b)(3); 60.4245(a)(3)]
- d. For each engine subject under Permit Conditions 12 or 21 (NSPS IIII or MACT ZZZZ), the Permittee shall maintain an onsite copy of the manufacturer's written instructions, or procedures developed by the Permittee in accordance with these Permit Conditions and make it available to MCAQD upon request.
[Rule 220 §302.7] [40 CFR §§ 63.6655(e); 63.6660]
- e. For each emergency ICE subject under Permit Condition 21 (MACT ZZZZ), the Permittee shall maintain records which must include, at a minimum, the following:
 - i. Oil and filter change dates and corresponding hour on the hour meter;
 - ii. Inspection and replacement dates for air cleaners, hoses, and belts; and
 - iii. Records of other emission-related repairs and maintenance performed.
[Rule 100 §504] [Rule 220 §501] [40 CFR §§ 63.6640(a); 63.6655(e)(2); 63.6660]

25. Reporting:

- a. Deviations from Stationary ICE Maintenance Schedule:
The Permittee shall report any failure to perform a maintenance operation on the schedule required by Permit Condition 23 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.

[County Rule 130 §402]

NON-ROAD ENGINES

26. Applicability:

- a. A non-road engine shall be defined as an engine, that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include but are not limited to, wheels, skids, carrying handles, dollies, trailers, or platforms.

[SIP Rule 324 §210.1(c)]

- b. An engine is not a non-road engine if it resides in any one location for more than 12 consecutive months. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replace an engine (or engines) at a location and that is intended to perform the same or similar function as the engine (or engines) replaced will be included in calculating the consecutive time period.

[SIP Rule 324 §§ 103.2, 210.2(c)]

- c. Should the engine remain in one location for more than 12 consecutive months, it shall lose its non-road designation and shall become subject to applicable sections of the Permit for stationary ICE. The Permittee shall also submit a notification to the Control Officer (Attn: Compliance Manager) in accordance with Permit Condition **Error! Reference source not found.**

[SIP Rule 324 §211] [Rule 220 §403]

27. Fuel Limitation:

The Permittee shall only use fuel that contains less than 0.05% sulfur by weight to operate the non-road engines.

[Rule 320 §§ 202, 305] [Locally Enforceable Only]

28. Recordkeeping:

The Permittee shall comply with the following record keeping requirements for each non-road engine. Records shall be retained for five years and shall be made available to the Control Officer upon request.

- a. Date that the engine is brought to the facility;
- b. Make, model, serial number and capacity of the engine;
- c. Date of each instance in which the engine is moved from its existing location; and
- d. Fuel type and sulfur content of fuel. The Permittee shall maintain 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 as evidence of compliance.

[Rule 220 §302.7] [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, 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. Normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) §49-457 and A.R.S. §49-504.4.
- b. 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.
- c. 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.
- d. Rooftop operations for cutting, drilling, grinding, or coring roofing tile when such activity is occurring on a pitched roof.

[SIP Rule 310 §103]

31. Emission Limitation:

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 [E] pounds per hour.

- 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 ≤ 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 in accordance with Permit Condition 5.a.i.

[Rule 311 §304] [Rule 241 §302]

33. Dust Control Plan Requirement:

For dust-generating operations with a disturbed surface area equal to or greater than 0.10 acre (4,356 square feet), the Permittee shall submit to the Control Officer a Dust Control Plan with the permit applications before commencing any routine dust-generating operation. The Dust Control Plan shall be kept available onsite at all times. 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; 402; 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, an owner and/or operator shall:
 - i. 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.
 - ii. Cease dust-generating operations and stabilize any disturbed surface area consistent with the Stabilization Requirements of this Permit Section.
 - iii. Compile records consistent with the Record keeping requirements in this Permit Section 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%.

[SIP Rule 310 §304.1]

- b. Unpaved Haul/Access Road:

- i. The owner and/or operator of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) 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 6%.
- ii. The owner and/or operator of any unpaved haul/access road (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road in Subsection 36.a of this Permit Condition, limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this Subsection, the owner and/or operator must include, in a Dust Control Plan, the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

[SIP Rule 310 §304.2]

- c. Disturbed Surface Area: The owner and/or operator of any disturbed surface area on which no activity is occurring (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall meet at least one of the standards described below, as applicable. Should such a disturbed surface area contain more than one type of stabilization characteristic, such as soil, vegetation,

or other characteristic, which is visibly distinguishable, then the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described in Section 501.2(c) of County Rule 310 and in Appendix C (Fugitive Dust Test Methods) of County rules. The owner and/or operator of such disturbed surface area on which no activity is occurring shall be considered in violation of County Rule 310 if the area is not maintained in a manner that meets at least one of the standards listed below, as applicable. An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this Permit Section.

- i. Maintain a soil crust;
- ii. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;
- iii. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- iv. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
- v. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
- vi. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- vii. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator.

[SIP Rule 310 §304.3]

37. Control Measures for Dust-Generating Operations:

For dust-generating operations with a disturbed surface area less than 0.10 acre (4,356 square feet), the owner and/or operator shall install, maintain, and use control measures, as applicable. Control measures for specific dust-generating operations are described in this Permit Condition. 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. At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all dust-generating sources.

[SIP Rule 310 §305]

For the purpose of this Permit an "AREA ACCESSIBLE TO THE PUBLIC" is defined as any paved parking lot or paved roadway that can be entered or used for public travel primarily for purposes unrelated to the dust-generating operation.

[SIP Rule 310 §202]

- a. Off-Site Hauling onto Areas Accessible to the Public: The owner and/or operator of a dust-generating operation that involves off-site hauling shall implement the following control measures:
 - i. When cargo compartment is loaded:
 - 1) Load all haul trucks such that the freeboard is not less than three inches;
 - 2) Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of a cargo container area;
 - 3) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
 - 4) Cover cargo compartment with a tarp or other suitable closure.
 - ii. When cargo compartment is empty:

- 1) Clean the interior of the cargo compartment; or
 - 2) Cover the cargo compartment with a tarp or other suitable closure.
- iii. When off-site hauling, install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site.

[SIP Rule 310 §305.1]

- b. Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within the Boundaries of the Work Site but not Crossing an Area Accessible to the Public. The owner and/or operator of a dust-generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site but not crossing an area accessible to the public shall implement one of the following control measures:

- i. Limit vehicle speed to 15 miles per hour or less while traveling on the work site;
- ii. Apply water to the top of the load; or
- iii. Cover haul trucks with a tarp or other suitable closure.

[SIP Rule 310 §305.2]

- c. Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within the Boundaries of the Work Site and Crossing and/or Accessing an Area Accessible to the Public: The owner and/or operator of a dust-generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site and crossing and/or accessing an area accessible to the public shall implement all of the following control measures:

- i. Load all haul trucks such that the freeboard is not less than three inches;
- ii. Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of a cargo container area;
- iii. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- iv. When crossing and/or accessing an area accessible to the public, install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site.

[SIP Rule 310 §305.3]

- d. Bulk Material Stacking, Loading, and Unloading Operations: The owner and/or operator of a dust-generating operation that involves bulk material stacking, loading, and unloading operations shall implement at least one of the following control measures:

- i. Prior to stacking, loading, and unloading:
 - 1) Mix material with water; or
 - 2) Mix material with a dust suppressant other than water.
- ii. While stacking, loading, and unloading:
 - 1) Apply water; or
 - 2) Apply a dust suppressant other than water.

[SIP Rule 310 §305.4]

- e. Open Storage Piles: The owner and/or operator of a dust-generating operation that involves an open storage pile shall implement the following control measures, as applicable, when not conducting stacking, loading, and unloading operations:

- i. Cover all open storage piles with a tarp, plastic, or other material to prevent wind from removing the covering(s) such that the covering(s) will not be dislodged by wind; or

- ii. Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent methods approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent methods approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or
- iii. Maintain a visible crust; or
- iv. Implement the control measure described in Subsections 37.b or 37.c of this Permit Condition and construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.

[SIP Rule 310 §305.5]

- f. Unpaved Staging Areas, Unpaved Parking Areas, and Unpaved Material Storage Areas: The owner and/or operator of a dust-generating operation that involves unpaved staging areas, unpaved parking areas, and unpaved material storage areas shall implement one or more of the following control measures:
 - i. Apply water so that the surface is visibly moist;
 - ii. Pave;
 - iii. Apply and maintain gravel, recycled asphalt, or other suitable material;
 - iv. Apply and maintain a suitable dust suppressant other than water; or
 - v. Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this Subsection, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the staging areas, parking areas, and/or material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

[SIP Rule 310 §305.6]

- g. Unpaved Haul/Access Roads: The owner and/or operator of a dust-generating operation that involves unpaved haul/access roads shall implement one or more of the following control measures:
 - i. Apply water so that the surface is visibly moist;
 - ii. Pave;
 - iii. Apply and maintain gravel, recycled asphalt, or other suitable material;
 - iv. Apply and maintain a suitable dust suppressant other than water; or
 - v. Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this Subsection, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

[SIP Rule 310 §305.7]

- h. Weed Abatement by Discing or Blading: The owner and/or operator of a dust-generating operation that involves weed abatement by discing or blading shall comply with all of the following control measures:
 - i. Before weed abatement by discing or blading occurs, apply water;
 - ii. While weed abatement by discing or blading is occurring, apply water; and
 - iii. After weed abatement by discing or blading occurs, pave, apply gravel, apply water, apply a suitable dust suppressant other than water, or establish vegetative ground cover.

[SIP Rule 310 §305.8]

- i. Disturbed Surface Areas: The owner and/or operator of a dust-generating operation that involves disturbed surface areas shall implement the following control measures, as applicable:
 - i. Before disturbed surface areas are created, implement one of the following control measures:
 - 1) Pre-water site to depth of cuts, allowing time for penetration; or
 - 2) Phase work to reduce the amount of disturbed surface areas at any one time.
 - ii. While disturbed surface areas are being created, implement one of the following control measures:
 - 1) Apply water or other suitable dust suppressant other than water, to keep the soil visibly moist throughout the process;
 - 2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or
 - 3) Implement one of the control measures in Subsections 37.i.ii.1) or 37.i.ii.2) of this Permit Condition and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving a site.
 - iii. When the dust-generating operation is finished for a period of 30 days or longer – for longer than temporary pauses that occur during a dust-generating operation, the owner and/or operator shall implement one or more of the following control measures within ten days following the completion of such dust-generating operation:
 - 1) Pave, apply gravel, or apply a suitable dust suppressant other than water;
 - 2) Establish vegetative ground cover;
 - 3) Implement one of the control measures in Subsections 37.i.iii.1) or 37.i.iii.2) of this Permit Condition and restrict vehicle access to the area;
 - 4) Apply water and prevent access by fences, ditches, vegetation, berms, or other suitable barrier or means sufficient to prevent trespass as approved by the Control Officer; or
 - 5) Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.
- [SIP Rule 310 §305.11]
- j. Easements, Rights-of-Way, and Access Roads for Utilities (Transmission of Electricity, Natural Gas, Oil, Water, and Gas) Associated With Sources That Have a Non-Title V Permit, a Title V Permit, and/or a General Permit Under Maricopa County Air Quality Department Rules: The owner and/or operator of a dust-generating operation that involves an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) associated with sources that have a General permit shall implement at least one of the following control measures:
 - i. Inside Area A, limit vehicle speed to 15 miles per hour or less and vehicle trips to no more than 20 per day per road;
 - ii. Outside Area A, limit vehicle trips to no more than 20 per day per road; or
 - iii. Implement control measures described in Subsection 37.g of this Permit Condition.
- [SIP Rule 310 §305.12]

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

For dust-generating operations with a disturbed surface area less than 0.10 acre (4,356 square feet), the owner and/or operator shall prevent and control trackout, carry-out, spillage, and/or erosion.

- a. Criterion for Clean Up of Trackout: Remove trackout, carry-out, spillage, and/or erosion from areas accessible to the public including curbs, gutters, and sidewalks, on the following time-schedule:
 - i. Immediately, when trackout, carry-out, or spillage extends a cumulative distance of 25 linear feet or more; and
 - ii. At the end of the workday for all other trackout, carry-out, spillage, and/or erosion
- b. Control Measures:
 - i. Operate a street sweeper or wet broom with sufficient water, or including but not limited to kick broom, steel bristle broom, Teflon broom, vacuum, at the speed recommended by the manufacturer and at the frequency(ies) described in this permit; or
 - ii. Manually sweep up deposits to comply with this Subsection.

[SIP Rule 310 §306.2]

39. Soil Moisture:

If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust-generating operation shall operate a water application system on-site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a soil crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

[SIP Rule 310 §307]

40. Dust Control Training Classes For Dust-Generating Operations:

Basic Dust Control Training Class:

- a. At least once every three years, the following people shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
 - i. Water truck drivers.
 - ii. Water-pull drivers.
 - iii. The site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area.
- b. The Control Officer may suspend or revoke for cause including, but not limited to, inappropriate ethical activities or conduct associated with the dust control program or repeated failure to follow the training requirements, a certification issued to a person having successfully completed a Basic Dust Control Training Class conducted or approved by the Control Officer. The Control Officer will provide written notification to such person regarding such suspension or revocation.

[SIP Rule 310 §309.1]

41. Dust Control Plan Revisions:

For dust-generating operations with a disturbed surface area equal to or greater than 0.10 acre (4,356 square feet):

- 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, then the Control Officer shall issue a written notice to the owner and/or operator of the dust-generating operation explaining such determination.
- b. 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.
- c. The Permittee shall request a Dust Control Plan revision with a submittal in the manner and form prescribed by the Control Officer if:

[SIP Rule 310 §403.1]

- 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]

42. Record Keeping:

The Permittee shall maintain the following records for a period of at least five years from the date such records are established 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 (4,356 square feet), 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 (4,356 square feet), 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 §502.2]

- 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, 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]

43. Records Retention:

- a. For dust-generating operations with a disturbed surface area equal to or greater than 0.10 acre (4,356 square feet), 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 (4,356 square feet), the

Permittee shall retain records required by this rule for at least five years from the date such records are established.

[Rule 100 §504]

GENERAL CONDITIONS

44. Coverage under the General Permit:

Any facility operating a Wastewater Treatment Plant 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 the Application for the Authority to Operate and/or Construct a Wastewater Treatment Plant Under the General Permit. 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]

45. 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]

46. 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][Locally Enforceable Only]

47. 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, 310.3][Rule 220 §406.3][Locally Enforceable Only]

- 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][Locally Enforceable Only]

- 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][A.A.C. R18-2-306.A.8.b][Locally Enforceable Only]

- d. Rights and Privileges: This Permit does not convey any property rights or exclusive privilege of any sort.

[Rule 220 §302.12][Locally Enforceable Only]

- 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][A.R.S. 49-480(D)][SIP Rule 28]

48. 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]

49. 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][Locally Enforceable Only]

50. 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 100 §106][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][Locally Enforceable Only]

51. 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.

[Rule 100 §401][Rule 220 §302.14][Locally Enforceable Only]

52. 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.

[Rule 230 §305][Rule 200 §301][Locally Enforceable Only]

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

[Rule 230 §307][Locally Enforceable Only]

53. 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][Rule 220 §404.3.d] [Locally Enforceable Only]

54. 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.
[Rule 100 §105][Rule 220 §302.17-21][SIP Rule 43]

55. 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]