

CITY OF CASA GRANDE

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1. Introduction

This permit pertains to a wastewater treatment facility operated by the City of Casa Grande. The SIC Code is 4952 and the NAICS code is 221320. This Water Reclamation Facility is located on 1194 West Kortsen Road, Casa Grande, Arizona upon a parcel identified by Pinal County's Assessor parcels, #503-33-005L and #503-33-0060. The source is situated in an area classified as attainment for all pollutants except for PM₁₀.

~~This Renewal S16128.000 removes removed~~ the BioCube scrubbers, and the OxyPhogg system incorporated in the permit through earlier revisions.

Permit S16070.R01 (July 2015) authorized the installation of an EcoVerde scrubber to control H₂S at the headworks building. The EcoVerde scrubber was ~~being~~ installed as a replacement for ~~the an~~ existing BioCube scrubber. Additional hydrogen sulfide testing ~~will be~~ has been required ~~one~~ since the unit ~~is was~~ installed, to demonstrate continuing compliance with the 0.03 ppmv thirty minute average standard.

Permit S16070.000 (July 2013) renewed the existing permit, removed references to hydrogen sulfide fenceline requirements that were previously incorporated by permit conditions, retains hydrogen sulfide standards at the nearest occupied place as required by local rule, and updates the equipment list. This renewal also incorporated the applicable requirements pursuant to the Clean Air Act §§111 and 112 pertaining to Compression Ignition (CI) Internal Combustion Engines (ICE) NSPS, 40 CFR 60 Subpart IIII, for 2007 model year or later engines and the provisions of the Stationary Reciprocating Internal Combustion Engines (RICE) NESHAP, 40 CFR 63 Subpart ZZZZ, for all engines and the Asbestos NESHAP, 40 CFR 61 Subpart M, ~~for all commercial facilities.~~

Permit S16027 Revision 'R01 (February 2010) was for an expansion and increase of the plant capacity from 6 to 12 million gallons per day annual average daily flow. The plant was also upgraded to produce a Class A+ effluent. The expansion included a new Solids Handling Facility with a new odor control system to treat foul air from the building. The odor control is a 26,400 square feet biofilter designed to remove a nominal 97% of the hydrogen sulfide. The applicant submitted a model showing the H₂S impact from the expanded facility and PCAQCD has confirmed their results. The concentration of H₂S from the expanded facility does not exceed the standard of 0.03 ppmv anywhere beyond the fenceline. The highest modeled emission beyond 675 feet (200 m) is approximately 0.010 ppmv. PCAQCD conducted the same exercise characterizing the biofilter as an area source. The impact beyond 200 meters (675 ft), which is estimated to be the fenceline, does not exceed the 0.03 ppmv H₂S standard.

~~Permit S16027 Revision 'R01 added a 1500 kW diesel emergency generator to the facility. The facility also includes a pre-NSPS 400 kW standby emergency generator operated on diesel fuel.~~

A complete list of equipment from which emissions are allowed by this permit is given in Section 9 of this permit. Emissions listed in the last section of this permit constitute the emissions allowed by this permit.

The original portion of the facility utilizes a scrubber to control odiferous emissions, including H₂S, from the headworks area of the plant. Worst-case controlled emissions of H₂S will total approximately 1.53 tpy or an average of about 8.38 lbs/day.

Permit S16027 Revision 'R02 (February 2011) set forth a compliance plan to demonstrate that H₂S emissions were below 0.03 ppmv at the fenceline. On site testing in 2011 and 2012 showed the facility could not maintain this standard at the fenceline. Additional testing in 2012 demonstrated that the facility could meet this standard at the nearest currently occupied place, as required by local rule. Permit S16070.000 (May 2013) removed the references to hydrogen sulfide fenceline requirements and retains hydrogen sulfide standards at the nearest occupied place as required by local rule. The permit also requires additional testing should the nearest currently occupied place change.

Based on standard emission factors and continuous operation, the 400 kW (536 hp) and 1500 kW (2012 hp) diesel engines have a potential to emit approximately 280 tons per year ("tpy") of NO_x. However, this

permit limits the generators operation to 100 hours each per year, as required in Section §5.F.1.ii of this permit.

The source falls subject to requirements under CAA §111 and §112, however the applicable NSPS and NESHAP exempt the source in its current configuration from the obligation to obtain a permit under 40 CFR Part 70 or 71. Therefore, this source does not require an operating permit under Title V of the CAA.

~~2. Compliance Certification~~

~~A. Compliance Plan [Mandated by 40 CFR §70.5(e)(8)] (Code §§3-1-081.C, 3-1-083.A.7)~~

~~The Permittee has certified that it is currently in compliance. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis.~~

~~B. Compliance Schedule [Mandated by 40 CFR §§ 70.5(e)(8), 70.6(e)(3)] (Code §§3-1-060.B.1, 3-1-083.A.7.e)~~

~~As of the issuance of this permit the Permittee has demonstrated compliance with Code 5-24-1030.H by verifying that H₂S emissions were below 0.03 ppmv at the nearest currently occupied place. The Permittee failed to demonstrate that H₂S emissions were below 0.03 ppmv at the fenceline as required by a previous compliance plan. This compliance plan will set forth procedures for reassessing compliance with Code 5-24-1030.H if the nearest currently occupied place changes.~~

~~1. Schedule of Compliance~~

~~Should the nearest currently occupied place change the following timeline will apply:~~

- ~~a. Within 15 calendar days of construction of any residential or commercial project within 0.5 miles of the facility's fenceline the Permittee shall submit a test protocol to the District for assessing H₂S levels at the location.~~
- ~~b. Within 30 calendar days of such construction, the Permittee shall conduct H₂S testing at this location pursuant to the protocol approved by the District.~~
- ~~c. Within 60 calendar days of such construction, the Permittee shall submit the H₂S test results to the District.~~
- ~~d. If the test results show any 30 minute average(s) above 0.03 ppmv the Permittee shall also submit a compliance plan within 60 calendar days that includes proposed corrective measures including alternative odor control and additional monitoring/modeling based on the implementation of alternative odor controls. The compliance plan shall include a schedule for design and construction of the proposed alternatives.~~
- ~~e. Within 90 days of such construction, the Permittee shall submit a permit revision application to the District in order to implement the proposed corrective actions.~~

2. Authority to Construct

- A. Generally [Federally enforceable pursuant to PCAQCD Code §§3-1-010, 3-1-040 (10/12/95) approved as a SIP element at 65 FR 79742 (12/20/00)]

As an exercise of authority under PCAQCD's SIP-approved minor new source review program, this permit revision additionally authorizes the construction of the equipment enumerated in the Subsection B of this section. That authorization rests on findings regarding the limited emission potential of the affected equipment, coupled with the enforceable control requirements under this permit. Therefore, based on the regulations in effect upon the date of issuance of this permit and a finding that allowable emissions from the equipment described in Subsection B will neither cause nor contribute to a violation of any ambient air quality standard even without additional limitations, and a further finding that in view of this permit this does not constitute a "major emitting source" within the meaning of Code §3-3-203, this permit constitutes authority to construct such equipment.

- B. Minor New Source Review Requirements - Equipment Authorized [*Code §§3-1-010, 3-1-040 (as amended 10/12/95) approved as a SIP element at 61 FR 15717 (4/9/96)*]; Material Permit Condition (Code §3-1-109)

All the equipment listed under section §9.A of this permit.

- C. Minor New Source Review Requirements - Control Requirements [*Code §§3-1-010, 3-1-040 (as amended 10/12/95) approved as a SIP element at 61 FR 15717 (4/9/96)*]; Material Permit Condition (Code §3-1-109)

1. The generators identified in §9.A of this permit shall:
 - a. Be equipped with an hour meter, configured to record hours of operation.
 - b. Each generator shall not operate more than 100 hours each per calendar year as required under Section §5.F.1.ii.
2. Permittee shall operate and maintain the odor control scrubber and biofilter in order to achieve the manufacturer's designed control efficiency for H₂S and meet the standard of PCAQCD Code §5-24-1030.H as described in section §4.C.2 of this permit.

3. Emission Limitations and Controls

- A. Applicable Limitations [*Federally enforceable pursuant to PCAQCD Code § 3-1-082 (11/3/93) approved as SIP Elements at 65 FR 79742 (12/20/00)*]

Where different standards or limitations apply under this permit, the most stringent combination shall prevail and be enforceable.

- B. Allowable Emissions [*Currently federally enforceable – PCAQCD Code § 3-1-040 (as amended 10/12/95) approved as SIP Elements at 65 FR 79742 (12/20/00)*]

The owner/operator ("Permittee") is authorized to discharge or cause to discharge into the atmosphere those emissions of air contaminants as set forth in this permit. Unless exempted under Code §3-2-180, Permittee shall not use any material, process, or equipment not identified in this permit which will cause emissions of any regulated air pollutant in excess of the 5.5 pound-per-day de minimis amount, unless authorized by a permit revision under as allowed under this permit, or by a separate permit issued by the District or other competent authority.

- C. Hydrogen Sulfide Applicable Standards of Performance (Code §§5-24-1030.D, 5-24-1030.H)

1. No person shall emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities of concentrations as to cause air pollution.

2. No person shall allow hydrogen sulfide (H₂S) to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises which the source is located exceeds 0.03 parts per million by volume for any averaging period of 30 minutes or more.

D. Standards of Performance for Stationary Rotating Machinery (Code §5-23-1010.A.B.C.D)

1. For equipment having a heat input rate of 4200 million Btu/hr or less, the maximum allowable emissions shall be determined by the following equation:

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

Where: E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the total heat input of all operating fuel burning units on a plant premises in million btu/hr

2. For equipment having a heat input rate greater than 4200 million Btu/hr ~~or less~~, the maximum allowable emissions shall be determined by the following equation:

$$E = 17.0 * Q^{0.432}$$

Where: E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the total heat input of all operating fuel burning units on a plant premises in million btu/hr

3. For references purposes only, the actual values shall be calculated from the applicable equations and rounded off to two decimal places.
4. No person shall cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
5. When low sulfur oil is fired, stationary rotating machinery installations shall burn fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input.

E. NSPS (Subpart IIII) Standards - Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), and NESHAP (Subpart ZZZZ) Standards - Stationary Reciprocating Internal Combustion Engines (RICE) [*Currently federally enforceable; 40 CFR 60.4202, 60.4205, 40 CFR 89.112*]

1. Owner and operators of emergency stationary RICE that commenced construction after June 12, 2006 shall comply with NESHAP 40 CFR 63 Subpart ZZZZ standards by meeting the requirements of NSPS 40 CFR 63 Subpart IIII.
2. Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the following emission standards:

Unit	Mfg. Date	Displacement per Cylinder (l)	NMHC + NOX g/kw-hr	CO g/kw-hr	PM g/kw-hr
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Cummins QSK50-G4 1500 kW	9/2008	3.14	6.4	3.5	0.2
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3. Generators that commenced construction before June 12, 2006 must (400 kW Cummins Model KTA19-G2):
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or
 - b. Conduct an oil analysis every 500 hours of operation or annually, whichever comes first. If the analysis demonstrates that any of the following parameters have been exceeded the oil must be changed within 2 business days of receiving the results or 2 business days before commencing operation of the engine, whichever is later. The oil must be changed if:
 - i. The Total Base Number is less than 30% of the Total Base Number of oil when new or;
 - ii. The viscosity of the oil has changed by more than 20% from the viscosity of the oil when new or;
 - iii. The percent water content (by volume) is greater than 0.5%
 - c. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - d. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

F. Particulate Emissions - Opacity Limits

1. SIP Limitation [*Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.1 (6/16/80) approved as a SIP element at 47 FR 15579 (4/12/82)*] (Code §§2-8-300. and 4-2-040.)

The opacity of any plume or effluent shall not be greater than 40 percent as determined by Reference Method 9 in the Arizona Testing Manual (ADEQ, 1992). Nothing in this limitation shall be interpreted to prevent the discharge or emission of uncontaminated aqueous steam, or uncombined water vapor, to the open air.
2. Visibility Limiting Standard [*Federally enforceable pursuant to PCAQCD Code §2-8-300 (as amended 5/18/05) approved as a SIP element at 71 FR 15043 (3/27/06)*]

The opacity of any plume or effluent from any point source not subject to a New Source Performance Standard adopted under Chapter 6 of the Code, and not subject to an opacity standard in Chapter 5 of the Code, shall not be greater than 20% as determined in Method 9 in 40 CFR Part 60, Appendix A.

G. Particulate Matter Reasonable Precautions [*Currently federally enforceable pursuant to Code §4-2-040 (6/29/93) approved as a SIP element at 72 FR 41896 (8/1/07) and PGAQD Reg. 7-3-1.2 (7/1/75) approved as a SIP element at 43 FR 53034 (11/15/78)*]

1. Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, subdivision site, driveway, parking area, vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, or fill dirt to be deposited, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
2. Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, such as but not limited to all-terrain vehicles, trucks, cars, cycles, bikes, or buggies, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
3. Permittee shall not disturb or remove soil or natural cover from any area without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
4. Permittee shall not crush, screen, handle or convey materials or cause, suffer, allow or permit material to be stacked, piled or otherwise stored without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
5. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such a manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne. Other reasonable precautions shall be taken, as necessary, to effectively prevent fugitive dust from becoming airborne.
6. Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to fugitive dust without taking reasonable precautions to prevent fugitive dust from becoming airborne. Earth and other material that is tracked out or transported by trucking and earth moving equipment on paved streets shall be removed by the party or person responsible for such deposits.

H. Surface Stabilization [*Currently federally enforceable pursuant to Code §4-1-030 (10/28/15) approved as a SIP element at 82 FR 20267 (5/1/17)*]

1. Permittee shall not cause or allow visible fugitive dust emissions from open areas / vacant lots (areas not being utilized for an activity) to exceed 20% opacity based on EPA Method 9 or the continuous plume or intermittent plume methods listed in PCAQCD Code §4-9-340.
2. Permittee shall erect barriers or no trespassing signs upon evidence of trespass on open areas / vacant lots.
3. Permittee shall stabilize any open area / vacant lot greater than 1.0 acre that has 0.5 acre or more of disturbed surface and sign up for the Pinal County Dust Control forecast within 30 days of discovery. The open area / vacant lot shall be stabilized the day leading up to and the day that is forecast to be high risk for dust emissions.
4. Permittee shall not remove vegetation from open areas / vacant lots without applying dust suppressants before and during the weed abatement. Trackout onto paved surfaces must be prevented or eliminated and dust suppressants must be applied following weed abatement to stabilize the entire surface.
5. Stabilization of open areas / vacant lots is determined by the drop ball, threshold friction velocity, flat vegetation or standing vegetation methods listed in PCAQCD Code 4-9-320.

6. Permittee shall not cause or allow visible fugitive dust emissions from unpaved lots (areas being utilized for an activity) greater than 5000 square feet to exceed 20% opacity based on EPA Method 9 or the continuous plume or intermittent plume methods listed in PCAQCD Code §4-9-340.
7. Permittee shall not allow silt loading equal to or greater than 0.33 oz/ft² or allow the silt content to exceed 8% on unpaved lots greater than 5000 square feet.
8. Permittee shall stabilize unpaved lots greater than 5000 square feet by paving, applying a dust suppressant or graveling.
9. Permittee shall clean up trackout on a paved public roadway that exceeds 50 feet within 24 hours of discovery and limit opacity to 20% or less while using a rotary brush or broom.
10. Permittee shall make a record of the control measures applied.

I. Asbestos NESHAP Compliance [*Currently federally enforceable; 40 CFR Part 61, Subpart M*] (Code §§7-1-030, 7-1-060)

Permittee shall comply with Code §§7-1-030.A.13. and 7-1-060 and 40 CFR Part 61, Subpart M, when conducting any renovation or demolition activities at the facility. Including, but not limited to, having an AHERA certified individual sample and test all building materials for the presence of asbestos prior to disturbance or removal.

J. Fuel Use Limitations (Code §§3-1-081)

1. Primary Fuel for NSPS Subpart IIII generators, model year 2007 and newer [*Currently federally enforceable; 40 CFR §60.4207.a, 40 CFR 80.510.b*] - Cummins Model QSK50-G4
 - a. Owners and operators of CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel must only use diesel fuel meeting the requirements of 40 CFR 80.510.b which requires that diesel fuel shall:
 - i. Have a maximum sulfur content of 15 parts per million (ppm) and;
 - ii. Either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
2. Primary Fuel for generators older than model year 2007 (Code §§5-23-1000, 1010.F) - Cummins Model KTA19-G2

The Permittee is allowed to burn gasoline, natural gas, propane, or diesel fuel which contains less than 0.9 percent sulfur by weight as fuel for the emergency generator.
3. Other Fuels

The Permittee shall not use used oil, used oil fuel, hazardous waste, and hazardous waste fuel as defined in Codes §§3-1-081.G, 5-23-1010.F without first obtaining a separate permit or an appropriate permit revision.

K. General Maintenance Obligation [*Federally Enforceable Provision pursuant to code §3-1-081.E (9/5/01) approved as a SIP element at 66 FR 63166 (12/5/01)*] (~~Code §§3-1-081.E., 8-1-030.A.3~~)

At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

4. Compliance Demonstration

- A. Scrubber (Headworks) Hydrogen Sulfide Compliance Testing (Code §§3-1-160 & 3-1-170)
1. Permittee shall analyze the H₂S levels by one of the following methods. The following analysis shall be performed at a location representing the nearest occupied place beyond the premises on which the source of H₂S is located.
 - a. Conduct a test to monitor the H₂S levels, or
 - b. Conduct an air dispersion modeling analysis to determine H₂S concentration levels.
 2. Test Protocol

A test protocol for testing H₂S emissions shall be submitted to the District for approval at least thirty days (30) before the actual testing.
 3. Test Reports

Permittee shall submit the testing report to the district detailing the results of the analysis within ~~30~~ forty-five (45) days of the completion of the demonstration.
 4. Recurring Testing

If the average H₂S concentration from the initial testing or modeling is less than 0.03 ppmv, then the testing or modeling shall be performed once every five years or 60 months. If results indicate that the H₂S concentration is greater than 0.03 ppmv, then permittee shall perform semi-annual testing or modeling until compliance is achieved.
- B. Biofilter (Solids Handling Facility) Compliance Demonstration (Code §§3-1-160 & 3-1-170)
1. Within 5 years or 60 months from the previous demonstration; Permittee shall analyze the H₂S levels by one of the following methods. The following analysis shall be performed at a location representing the nearest occupied place beyond the premises on which the source of H₂S is located.
 - a. Conduct a test to monitor the H₂S levels, or
 - b. Conduct an air dispersion modeling analysis to determine H₂S concentration levels.
 2. Test Protocol

A test protocol for testing H₂S emissions shall be submitted to the district for approval at least thirty days (30) before the actual testing.
 3. Modeling Protocol

A modeling protocol shall be submitted to the district for approval at least thirty days (30) before the actual modeling.

4. Test Reports

Permittee shall submit the testing or modeling report to the district detailing the results of the analysis within ~~30~~ **forty-five (45)** days of the completion of the demonstration.

5. Recurring Testing

If the average H₂S concentration from the initial testing or modeling is less than 0.03 ppmv, then the testing or modeling shall be performed once every five years or 60 months. If results indicate that the H₂S concentration is greater than 0.03 ppmv, then permittee shall perform semi-annual testing or modeling until compliance is achieved.

C. Hydrogen Sulfide Exceedance Compliance Plan (Code §§3-1-081.C, 3-1-083.A.7)

1. Additional Monitoring

Within 60 days of the exceedance of the hydrogen sulfide standard of 0.03 ppmv, permittee shall submit a compliance plan with proposed corrective measures including alternative odor control and additional monitoring/modeling based on the implementation of alternative odor controls. The compliance plan shall include a schedule for design and construction of the proposed alternatives.

Within 90 days of the exceedance the Permittee shall submit a permit revision application to the District in order to implement the proposed corrective actions.

2. Operation and Maintenance Plan

Permittee shall maintain an O&M plan for the EcoVerde scrubber and the biofilter. As a part of the O&M plan, permittee shall establish key operating parameters for the systems. Permittee shall monitor, operate and maintain the equipment in accordance with the manufacturer's approved O&M plan. Records of O&M plan shall be maintained at the facility at all times.

D. Regular Emissions Monitoring ***[Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)]***

1. Non-instrumental Emissions Monitoring - Oxides of Nitrogen

As a surrogate measurement for monitoring emissions of oxides of nitrogen, Permittee shall make a monthly record of the number of hours the emergency generators are operated. ~~Each month, Permittee shall further calculate the aggregate number of hours the generators have operated so far in the calendar year, and verify that total does not exceed the limits under this permit.~~

2. Non-instrumental Emissions Monitoring - Sulfur Dioxide

As an alternative to monitoring fuel sulfur, Permittee shall maintain a verification from the fuel supplier that diesel fuel for the generators does not contain more than 15 ppm sulfur.

3. Visual Inspections

On a monthly basis, Permittee shall visually inspect the EcoVerde scrubber, and the biofilter to ensure they are operating properly. Records of these inspections shall be kept, as well as any corrective measures taken as a result of the inspections.

- E. Stationary Compression Ignition (CI) Internal Combustion Engine (ICE) NSPS Operational Compliance Demonstration for NSPS Subpart IIII CI ICE [*Currently federally enforceable; 40 CFR §60.4211.a and c*]
1. All engines and control devices must be installed, configured, operated and maintained according to the specifications and instructions provided by the engine manufacturer.
 2. Owners and operators of 2007 or later model year engines with a displacement of more than 10 and less than 30 liters per cylinder can demonstrate compliance by:
 - i. Purchasing an engine that is certified to meet non-road emission standards for the model year and maximum engine power.
 4. Owners and operators for 2007 or more model year engines, or pre-2007 model year engines, can demonstrate compliance by:
 - a. Purchasing an engine that is certified to meet non-road emission standards for the model year and maximum engine power.
- F. Stationary Reciprocating Internal Combustion Engines (RICE) NESHAP, NSPS Maintenance Requirements [*Currently federally enforceable; 40 CFR 63 Subpart ZZZZ and 40 CFR 60 Subpart IIII, 63.6640.f an 40 CFR §60.4211.f*]
1. Owners and operators of all Stationary Reciprocating Internal Combustion Engines (RICE) must limit annual calendar year hours of operation as follows to be considered an emergency stationary RICE. – 1500 kW Cummins Model QSK50-G4
 - a. There is no limit on the use of an emergency stationary RICE in emergency situations under NESHAP Subpart ZZZZ or NSPS Subpart IIII.
 - b. Maintenance checks, readiness testing, and demand response operation is limited to 100 hours per calendar year.
 - c. Non-emergency operation is limited to 50 hours per calendar year. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance, readiness checks, and demand response operation.
 - d. The 50 hours per calendar year for non-emergency operation cannot be used to supply power to another entity without a separate permit issued by the District.
 2. Emergency Generator Maintenance Requirements [*Currently federally enforceable; 40 CFR 63.6625(e),(f),(h),(i)*] – 400kW Cummins Model KTA19-G2
Generators that commenced construction before June 12, 2006 must:
 - a. Operate and maintain engine according to the manufacturer’s emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions.
 - b. Install a non-resettable hour meter if one is not already installed.
 - c. Minimize the engine’s start-up time not to exceed 30 minutes.

- G. Recordkeeping [*Federally Enforceable Provision pursuant to code §3-1-084 (8/15/94) approved as a SIP element at 61 FR 15717 (4/9/96)*] (Code §3-1-083)

Permittee shall maintain records of:

1. All information required pursuant to any provision of this permit, recorded in a permanent form suitable for inspection.
2. The occurrence and duration of any start-up, shutdown or malfunction in the operation of the permitted facility or any air pollution control equipment.
5. RICE NESHAP Recordkeeping [*Currently federally enforceable; 40 CFR63.6655*]
 - a. Record when the required maintenance was performed on the emergency generators and how the maintenance plan was followed;
 - b. Record the total hours of operation for each emergency generator;
 - c. Record the number of hours spent for emergency operation for each generator including what classified the operation as emergency;
 - d. Record the number of hours spent for non-emergency operation for each generator.

- H. Compliance Reporting (Code §3-1-083.A)

In order to demonstrate compliance with the provisions of this permit, the Permittee shall submit an annual report containing a summary of the information required to be recorded pursuant to this permit, which summary shall clearly show that Permittee has complied with the operational and emissions limitations under this permit. The report shall be submitted to the District within 30 days after the end of each calendar year. Appendix A is the form that can be used for this report.

- I. Annual Regular Compliance/Compliance Progress Certification (Code §3-1-175)

Permittee shall annually submit a certification of compliance with the provisions of this permit. The certification shall:

1. Be signed by a responsible official, namely the proprietor, a general partner, the president, secretary, treasurer or vice-president of the corporation, or such other person as may be approved by the Control Officer as an administrative amendment to this permit;
2. Identify each term or condition of the permit that is the basis of the certification;
3. Verify the compliance status with respect to each such term or condition;
4. Verify whether compliance with respect to each such term or condition has been continuous or intermittent;
5. Identify the permit provision, or other, compliance mechanism upon which the certification is based; and
6. Be postmarked within thirty (30) days of the start of each calendar year.

5. Other Reporting Obligations

- A. Deviations from Permit Requirements [*Federally Enforceable Provision pursuant to code §3-1-081.A.5.b (9/5/01) approved as a SIP element at 66 FR 63166 (12/5/01)*] (Code §3-1-081.A.5.b.)

Permittee shall report any deviation from the requirements of this permit along with the probable cause for such deviation, and any corrective actions or preventative measures taken to the District within ten days of the earlier of date the Permittee learned, or should have learned, of the deviation unless earlier notification is required by the provisions of this permit.

- B. *Annual Emissions Inventory* [Federally Enforceable Provision pursuant to code §3-1-103 (2/22/95) approved as a SIP element at 65 FR 79742 (12/2/00)]

Permittee shall complete and submit to the District an annual emissions inventory, disclosing actual emissions for the preceding calendar year. Submittal of the form set forth in Appendix A of this permit by January 30th of each year fulfills this requirement.

6. Fee Payment (Code §3-7-600.)

As an essential obligation under this permit, permit fee shall be assessed by the District and paid by Permittee in accord with the provisions of Code Chapter 3, Article 7, as they may exist at the time the fee is due. The permit fee shall be due annually on or before the anniversary date of the issuance of an individual permit, or formal grant of approval to operate under a general permit, or at such other time as may be designated now or hereafter by rule. The District will notify the Permittee of the amount to be due, as well as the specific date on which the fee is due.

7. General Conditions

- A. Term (Code §3-1-089)

This permit shall have a term of five (5) years, measured from the date of issuance.

- B. Basic Obligation (Code §3-1-081.)

Permittee shall operate in compliance with all conditions of this permit, the Pinal County Air Quality Control District ("the District") Code of Regulations ("Code"), and all State and Federal laws, statutes, and codes relating to air quality that apply to these facilities. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application and may additionally constitute a violation of the CAA.

- C. Duty to Supplement Application (Code §§3-1-050.H, 3-1-081.A.8.e, 3-1-110)

Even after the issuance of this permit, a Permittee, who as an applicant who failed to include all relevant facts, or who submitted incorrect information in an application, shall, upon becoming aware of such failure or incorrect submittal, promptly submit a supplement to the application, correcting such failure or incorrect submittal. In addition, Permittee shall furnish to the District within thirty days any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit and/or the Code.

- D. Right to Enter (Code §§ 3-1-132, 8-1-050)

Authorized representatives of the District shall, upon presentation of proper credentials, be allowed:

1. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this permit;

2. To inspect any equipment, operation, or method required in this permit; and
3. To sample emissions from the source.

Transfer of Ownership (Code §3-1-090)

This permit may be transferred from one person to another by notifying the District at least 30 days in advance of the transfer. The notice shall contain all the information and items required by Code § 3-1-090. The transfer may take place if not denied by the District within 10 days of the receipt of the transfer notification.

E. Posting of Permit (Code §3-1-100)

Permittee shall firmly affix the permit, an approved facsimile of the permit, or other approved identification bearing the permit number, upon such building, structure, facility or installation for which the permit was issued. In the event that such building, structure, facility or installation is so constructed or operated that the permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of the equipment or maintained readily available at all times on the operating premises.

F. Permit Revocation for Cause (Code §3-1-140)

The Director of the District ("Director") may revoke this permit for cause, which cause shall include occurrence of any of the following:

1. The Director has reasonable cause to believe that the permit was obtained by fraud or material misrepresentation;
2. Permittee failed to disclose a material fact required by the permit application form or a regulation applicable to the permit;
3. The terms and conditions of the permit have been or are being violated.

G. Certification of Truth, Accuracy, and Completeness (Code § 3-1-175)

Any application form, report, or compliance certification submitted pursuant to the Code shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under Chapter 3 of the Code shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

H. Permit Expiration and Renewal (Code §3-1-089)

Expiration of this permit will terminate the facility's right to operate unless either a timely application for renewal has been submitted in accordance with §§3-1-050, 3-1-055 and 3-1-060, or a substitute application for a general permit under §3-5-490. For Class I permit renewals, a timely application is one that is submitted at least 6 months, but not greater than 18 months prior to the date of the permit expiration. For Class II or Class III permit renewals, a timely application is one that is submitted at least 3 months, but not greater than 12 months prior to the date of permit expiration.

I. Severability (Code §3-1-081.A.7)

The provisions of this permit are severable, and if any provision of this permit is held invalid the remainder of this permit shall not be affected thereby.

- J. Permit Shield (Code § 3-1-102.)
1. Compliance with the terms of this permit shall be deemed compliance with any applicable requirement identified in this permit.
 2. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- K. Permit Revisions (Code Chapter 3, Article 2)
1. This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
 2. The permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
 3. Permit amendments, permit revisions, and changes made without a permit revision shall conform to the requirements in Article 2, Chapter 3, of the Code.
 4. Should this source become subject to a standard promulgated by the Administrator pursuant to CAA §112(d), then Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard. (Code §3-1-050.C.5)
- L. Permit Re-opening (Code §3-1-087)
1. This permit shall be reopened if either:
 - a. The Control Officer determines that it contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of it; or
 - b. The Control Officer determines that it needs to be revised or revoked to assure compliance with the applicable requirements.
 2. If this permit must be reopened or revised, the District will notify the permittee in accord with Code §3-1-087.A.3.
- M. Record Retention (Code §3-1-083.A.2.b)
- Permittee shall retain for a period of five (5) years all documents required under this permit, including reports, monitoring data, support information, calibration and maintenance records, and all original recordings or physical records of required continuous monitoring instrumentation.
- N. Scope of License Conferred (Code §3-1-081.)
- This permit does not convey any property rights of any sort, or any exclusive privilege.
- O. Excess Emission Reports; Emergency Provision (Code §3-1-081.E, Code §8-1-030)

1. To the extent Permittee may wish to offer a showing in mitigation of any potential penalty, underlying upset events resulting in excess emissions shall reported as follows:
 - a. The permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. Such report shall be in two parts:
 - i. Notifications by telephone or facsimile within 24 hours or the next business day, whichever is later, of the time when the owner or operator first learned of the occurrence of excess emissions, including all available information required under subparagraph b. below.
 - ii. Detailed written notification within 3 working days of the initial occurrence containing the information required under subparagraph b. below.
 - b. The excess emissions report shall contain the following information:
 - i. The identity of each stack or other emission point where the excess emissions occurred.
 - ii. The magnitude of the excess emissions expressed in the units of the applicable limitation.
 - iii. The time and duration or expected duration of the excess emissions.
 - iv. The identity of the equipment from which the excess emissions occurred.
 - v. The nature and cause of such emissions.
 - vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.
 - vii. The steps that were or are being taken to limit the excess emissions. To the extent this permit defines procedures governing operations during periods of start-up or malfunction, the report shall contain a list of steps taken to comply with this permit.
 - viii. To the extent excess emissions are continuous or recurring, the initial notification shall include an estimate of the time the excess emissions will continue. Continued excess emissions beyond the estimated date will require an additional notification.
2. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
3. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of the following subparagraph are met.

4. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Control Officer by certified mail or hand delivery within 2 working days of the time when emissions limitations were exceeded due to emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

8. Facility Specific Data

A. Equipment

Equipment for which emissions are allowed by this permit are as follows:

1. 1995 Cummins Diesel Engine Generator, Model KTA19-G2 - 400 kW (536 hp)
2. 2008 Cummins Diesel Engine Generator, Model QSK50-G4 NR2 - 1500 kW (2012 hp)
3. 12 MM gal/day (Annual Average Daily Flow) Water Reclamation Plant
4. 26,400 ft² Biofilter – Odor Control
 - a. .
5. (±) EcoVerde EG-12.5 Bioscrubber, 6700 cfm

B. Allowable Emissions Table

ID	Emission Unit	Pollutants	Emission Rate (Tons/year)
1	Emergency Generators	Nitrogen oxides (NO _x)	3.3
		Carbon Monoxide	0.7
		Sulfur Dioxide (SO _x)	0.1
		Particulate Matter (PM ₁₀)	0.1
		Volatile Organic Compounds (VOCs)	0.1
2	Scrubber	Hydrogen Sulfide (H ₂ S)	1.53
3	Biofilter	Hydrogen Sulfide (H ₂ S)	0.017

Appendix A: Annual Report

Permit ~~S16128.000~~ S16184.000

Abstract

This constitutes an annual report, documenting emissions and use of emission-generating materials during the subject reporting period.

Facility - City of Casa Grande
Wastewater Reclamation Facility
1194 West Kortsen Road, Casa Grande, Arizona

Reporting Period - January – December Year _____

Fuel report

Sulfur in diesel - _____ percent or ppm (circle the correct unit)

Were the verifications for diesel fuel from the supplier maintained as required in section §5.D.2 of this permit?
Yes _____ No _____

Generator Report

Operation of Emergency Generators during the reporting period:

Total Operation of Generator during the reporting period

400 kW _____ hours 1500 kW _____ hours

~~Non-Emergency Operation of Generator during the reporting period~~

~~400 kW _____ hours 1500 kW _____ hours~~

~~Maintenance checks, readiness testing and Demand Response Operation of Generator during the reporting period~~

~~400 kW _____ hours 1500 kW _____ hours~~

Hydrogen Sulfide Compliance Report

~~Did construction on a residential or commercial project commenced within 0.5 mile of the facility fence line during this reporting period?..... Yes _____ No _____~~

~~If yes, was the hydrogen sulfide compliance schedule implemented within the timeframes required by §2.B?
Yes _____ No _____~~

Was the testing/modeling to show compliance with hydrogen sulfide standards performed (if needed this reporting period) as required under section §5.A? Yes _____ No _____ N/A _____

§5.B Yes _____ No _____ N/A _____

If yes, then please list the testing date of the most recent performance test for the EcoVerde Scrubber _____

If yes, then please list the testing date of the most recent performance test for the biofilter _____

If non-applicable, explain why _____

During initial testing were there any exceedances in the hydrogen sulfide standards of 0.03 ppmv?

Yes _____ No _____

In case of hydrogen sulfide exceedances was a compliance plan submitted as required under section §5.C?

Yes _____ No _____ Not Applicable _____

Was an Operation and Maintenance (O&M) Plan for the EcoVerde scrubber, and biofilter maintained at the facility as required under Section §5.C.2?

Yes _____ No _____

Were the odor control systems visually inspected as required by §5.D.3? Yes _____ No _____

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, that the statements and information in this report are true, accurate and complete.

Signed _____

Printed Name _____

Title _____

Date _____

Contact Phone Number _____

Email to - compliancereports@pinal.gov, or

Mail to - Pinal County Air Quality Control District
 P.O. Box 987
 Florence, AZ 85132