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Petition for Post-Certification Amendment

Installation of Two Emergency Diesel-Fired Internal Combustion Engines

For the

Alamitos Energy Center

Long Beach, California
(13-AFC-01C)

Submitted to the:

California Energy Commission

Submitted by:

AES Alamitos Energy, LLC

With Technical Assistance by:

Jacobs Engineering Group Inc.

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Executive Summary

AES Alamos Energy, LLC (AES or the Project Owner) is submitting this petition to the California Energy Commission (CEC) for post-Certification license modification for the Alamos Energy Center (AEC) (13-AFC-01C). The AEC consists of a combined cycle gas turbine (CCGT) power block and a simple cycle gas turbine (SCGT) power block. The CCGT power block includes two natural gas fired turbines, two unfired heat recovery steam generators (HRSG), a condensing steam turbine (STG), an air-cooled condenser, and ancillary facilities.

This petition for post-certification license amendment (Petition to Amend or PTA) proposes to install two identical 1,112 brake-horsepower (bhp) emergency diesel-fired internal combustion engine (ICE) generators to provide emergency power supply to critical plant equipment in the CCGT power block during the gas turbine shutdown periods in the event of electrical emergency. The engines of these ICE generators will be U.S. Environmental Protection Agency (EPA) Tier 2 certified and equipped with California Air Resource Board (CARB) verified Level 3 diesel particulate filters (DPFs). No changes to the existing AEC equipment or operations are proposed.

To ensure compliance with all applicable laws, ordinances, regulations, and standards (LORS), the Project Owner has submitted a permit application under Application Numbers 636578, 636579, and 636580 to the South Coast Air Quality Management District (SCAQMD), presented in Attachment 3.1 of this PTA. A Permit to Construct (PTC)/Permit to Operate (PTO) for these two emergency ICE generators was approved by SCAQMD on August 10, 2022, with a courtesy copy submitted to the CEC on August 24, 2022. An excerpt of the applicable permit conditions is presented in Attachment 3.2 of this PTA.

To analyze potential environmental effects, an environmental impacts assessment is presented in Section 3. The assessment concludes that there will be no significant environmental impacts associated with the implementation of the actions specified in this PTA and that the project, as modified, will continue to comply with all applicable LORS.

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Acronyms and Abbreviations

AEC	Alamitos Energy Center
AES	AES Alamitos Energy, LLC
AFC	Application for Certification
AGS	Alamitos Generating Station
ATCM	Airborne Toxic Control Measures
BACT	best available control technology
bhp	brake-horsepower
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCGT	combined cycle gas turbine
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH ₄	methane
CI	compression-ignition
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
COC	Conditions of Certification
DPF	diesel particulate filter
DPM	diesel particulate matter
EPA	U.S. Environmental Protection Agency
FR	Federal Register
g/hp-hr	gram(s) per horsepower-hour
g/kWh	gram(s) per kilowatt-hour
GE	General Electric
GHG	greenhouse gas
H ₂ S	hydrogen sulfide

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HAP	hazardous air pollutants
HI	hazard index
HRSG	heat recovery steam generators
ICE	internal combustion engine
kg/MMBtu	kilogram(s) per million British thermal unit
kW	kilowatt(s)
lb	pound(s)
lb/hr	pound(s) per hour
LORS	laws, ordinances, regulations, and standards
MICR	Maximum Individual Cancer Risk
MT	metric ton
MW	megawatt(s)
N ₂ O	nitrous oxide
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMHC	non-methane hydrocarbons
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM _{2.5}	particulate matter with an aerodynamic diameter of 2.5 microns or less
PM ₁₀	particulate matter with an aerodynamic diameter of 10 microns or less
ppm	part(s) per million
ppmvd	part(s) per million by volume dry
PSD	Prevention of Significant Deterioration
PTA	Petition to Amend
PTC	Permit to Construct
PTE	potential to emit
PTO	Permit to Operate
RECLAIM	Regional Clean Air Incentives Market
RTC	RECLAIM Trading Credit

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SCAQMD	South Coast Air Quality Management District
SCGT	simple cycle gas turbine
SO ₂	sulfur dioxide
SO _x	sulfur oxides
STG	condensing steam turbine
TAC	toxic air contaminants
tpy	ton(s) per year
VOC	volatile organic compounds

1. Introduction

1.1 Background

The CEC approved the AEC Application for Certification (AFC) on April 12, 2017 (“Final Decision”). The AEC site is on the existing Alamitos Generating Station (AGS) property, located at 690 N. Studebaker Road in the City of Long Beach, California.

With the Final Decision, the CEC analyzed the AEC’s impacts for two General Electric (GE) Model 7FA.05 combustion turbines in a combined cycle configuration and four GE Model LMS100-PB combustion turbines in a simple cycle configuration. The AEC’s CCGTs began commercial operation in February 2020. Construction of the SCGTs has yet to commence and is contingent on securing a power purchase agreement.

Since issuance of the Final Decision, the following post-certification changes have also been approved by the CEC:

- Request to use a gravel area adjacent to the project site, on Southern California Edison’s switchyard site, approved August 2018.
- Modification of the maximum annual operating hours of the CCGT and SCGT units and the associated air emission limits, as well as an increase of the CCGT non-cold startup nitrogen oxides (NO_x) emission limits and modification of CCGT unit exhaust stack heights from 140 feet to 150 feet, approved June 2021.

In addition, the CEC is currently reviewing a PTA to remodel the entrance gate and replace the security guard shack at the AGS site.

1.2 Overview of Proposed Amendments

This PTA addresses the potential environmental impacts associated with installing two 1,112 bhp emergency diesel-fired ICE generators to provide emergency power supply to the CCGT power block. These ICE generators will:

- Be EPA Tier 2 certified and equipped with CARB-verified Level 3 DPFs for diesel particulate matter (DPM) reduction by 85 percent or greater.
- Emit NO_x, sulfur oxides (SO_x), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀), particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}), DPM, and greenhouse gases (GHGs).
- Be located more than 1,000 feet from a school or other sensitive receptor.

A detailed description of the proposed modification is included in Section 2 and analyzed in Section 3.

This PTA contains all of the information that is required pursuant to the CEC’s Siting Regulations (Title 20, California Code of Regulations [CCR], Section 1769, Post Certification Petition for Changes in Project Design, Operation or Performance and Amendments to the Commission Decision). The information necessary to fulfill the requirements of Section 1769 is contained in Sections 1 through 7, as summarized in Table 1.2-1.

Table 1.2-1. Informational Requirements for Post-Certification Modifications

Section 1769(a)(1) Requirements	Sections of PTA Fulfilling Requirements
(A) A complete description of the proposed change, including new language for any conditions of certification that will be affected;	Sections 1, 2, and 3
(B) A discussion of the necessity for the proposed change and an explanation of why the change should be permitted;	Sections 1.1, 1.2, 1.3, and 3
(C) A description of any new information or change in circumstances that necessitated the change;	Sections 1.1, 1.2, 1.3, and 3
(D) An analysis of the effects that the proposed change to the project may have on the environment and proposed measures to mitigate any significant environmental effects;	Sections 1.4 and 3
(E) An analysis of how the proposed change would affect the project's compliance with applicable laws, ordinances, regulations, and standards;	Sections 1.5 and 3
(F) A discussion of how the proposed change would affect the public;	Sections 1, 3, and 4
(G) A list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of any affected project linears and 1,000 feet of the project site;	Section 5
(H) A discussion of the potential effect of the proposed change on nearby property owners, residents, and the public; and	Sections 3, 4, and 6
(I) A discussion of any exemptions from the California Environmental Quality Act, commencing with Section 21000 of the Public Resources Code, that the project owner believes may apply to approval of the proposed change.	Section 7

1.3 Necessity of Proposed Changes, an Explanation of Why it Should Be Permitted, and a Description of New Information or Change in Circumstances

The CEC Siting Regulations require a discussion of the necessity for the proposed revisions to the AEC Certification, an explanation of why the change should be permitted, and a description of any new information or change in circumstances that necessitated the change (Title 20, CCR, Sections 1769(a)(1)(B) and (C)). The two proposed emergency diesel-fired ICE generators will be used to provide power supply to critical plant equipment in the CCGT power block during the gas turbine shutdown periods in the event of electrical emergency. Therefore, the change to install these two generators is necessary to maintain CCGT power block operations in the event of loss of grid power. This PTA further discusses why the change should be allowed.

1.4 Summary of Potential Environmental Effects and Proposed Mitigation Measures

The CEC Siting Regulations require an analysis of the effects that the proposed change to the project may have on the environment and proposed measures to mitigate any significant environmental effect (Title 20, CCR, Section 1769(a)(1)(D)). Section 3 of this PTA includes a discussion of the potential environmental impacts associated with the modification as well as a discussion of the consistency of the modification with applicable LORS. Section 3 concludes that there will be no significant, unmitigated environmental impacts associated with implementing the actions specified in this PTA and that the project, as modified, will comply with all applicable LORS. As such, no new or additional mitigation measures are proposed as part of this PTA.

1.5 Consistency of Changes with Applicable LORS

The CEC Siting Regulations require an analysis of how the proposed change would affect the project's compliance with applicable LORS (Title 20, CCR, Section 1769(a)(1)(E)). The proposed project modification is consistent with applicable LORS, as discussed in Section 3. The proposed project change will allow the AEC to maintain CCGT power block operations in the event of loss of grid power.

2. Description of Proposed Amendments

This section includes a description of the proposed project modification, consistent with CEC Siting Regulations (Title 20, CCR, Section 1769(a)(1)(A)).

The proposed change to the AEC includes the installation of two identical 1,112 bhp emergency diesel-fired ICE generators in the CCGT power block. The emergency ICE generator engines are Model Year 2022 or newer Perkins 2806C-E18TTAG7, which is certified by the EPA as a Tier 2 engine (Family Name NCPXL18.1NYS). Each engine will be equipped with a Miratech Model LTRV24-21-10-R1 CARB-verified Level 3 Plus DPF, which reduces PM₁₀/PM_{2.5} emissions by 85 percent or greater.

The ICE generators will only be operated for backup and emergency uses, with periodic maintenance and testing runs to maintain operational readiness. Operation of the ICE generators will be limited to 50 hours per year for maintenance and testing, and up to a maximum of 200 total hours per year. The proposed operating schedule for each ICE generator is presented in Table 2-1.

Table 2-1. Proposed ICE Generator Operating Schedule

Period	Maintenance and Testing	Total Operation
Hours per Day	1	N/A
Hours per Month	4.2	N/A
Hours per Year	50	200

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Table 2-3. April.

Note:

N/A = Not applicable (i.e., not needed for emissions calculations presented in Section 3.1)

Although the proposed change will require physical installation of two new pieces of equipment, their installation will not require any significant earth-moving activities or operational changes beyond revising the existing SCAQMD operational permits. The modification will also not impact operations of the existing AEC equipment. As such, there will be no change to AEC's existing equipment and operations.

3. Environmental Analysis of Proposed Amendments

The following subsections present a discussion of the potential impacts that the proposed change may have on the environmental analysis as presented in applicable sections of the Final Decision and subsequent amendments. Each discussion includes an environmental analysis, an assessment of compliance with applicable LORS, proposed mitigation measures, and, if applicable, proposed changes to the Conditions of Certification (COCs) that are necessary as a result of the project modification.

3.1 Air Quality and Greenhouse Gases

The proposed installation of two emergency diesel-fired ICE generators at the AEC has the potential to affect air quality and GHG impacts. An air permit application reflecting the emissions associated with the two new emergency ICE generators has been submitted to the SCAQMD and is presented as Attachment 3.1. As noted above, a PTC/PTO for these two emergency ICE generators was approved by SCAQMD on August 10, 2022. The potential effects of the proposed installation are considered below.

3.1.1 Environmental Setting

The project is located in Los Angeles County, which is within the SCAQMD's jurisdiction. The SCAQMD is the EPA's delegated authority to implement state and federal air quality regulations. The SCAQMD also monitors and reports the status of the area's air quality attainment of the California and National Ambient Air Quality Standards (CAAQS and NAAQS, respectively). Table 3.1-1 presents the attainment status for Los Angeles County.

Table 3.1-1. State and Federal Air Quality Designations for Los Angeles County, California

Pollutant	State Designation	Federal Designation
Ozone	1-hour: Nonattainment 8-hour: Nonattainment	1-hour: Nonattainment (Extreme) 8-hour: Nonattainment (Extreme)
CO	1-hour: Attainment 8-hour: Attainment	1-hour: Attainment (Serious Maintenance) 8-hour: Attainment (Serious Maintenance)
NO ₂	1-hour: Attainment Annual: Attainment	1-hour: Attainment (Maintenance) Annual: Attainment (Maintenance)
SO ₂	1-hour: Attainment 24-hour: Attainment	1-hour: Attainment N/A
PM ₁₀	24-hour: Nonattainment Annual: Nonattainment	24-hour: Attainment (Serious Maintenance) N/A
PM _{2.5}	N/A Annual: Nonattainment	24-hour: Nonattainment (Serious) Annual: Nonattainment (Serious)
Lead	Attainment	Nonattainment (Partial)
H ₂ S, Sulfates, Visibility, Vinyl Chloride	Attainment/Unclassified	N/A

Sources:

California Air Resources Board (CARB). 2022. "Maps of State and Federal Area Designations." Available online at: <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>. Accessed July 27, 2022.

U.S. Environmental Protection Agency (EPA). 2022. "Nonattainment Areas for Criteria Pollutants (Green Book)." Available online at: <https://www.epa.gov/green-book>. Accessed July 27, 2022.

Notes:

H₂S = hydrogen sulfide

N/A = Not applicable (i.e., no standard)

NO₂ = nitrogen dioxide

SO₂ = sulfur dioxide

3.1.2 Environmental Consequences

The proposed installation of two 1,112 bhp emergency diesel-fired ICE generators will result in increased air quality and GHG emissions at the AEC. By combusting diesel fuel, both ICE generators will emit VOC, NO_x, CO, PM₁₀/PM_{2.5}, SO_x, and GHGs during operations. As stated previously, the engines will be EPA Tier 2 certified with an add-on CARB-verified Level 3 DPF to achieve at least 85 percent reduction of PM₁₀/PM_{2.5} emissions. SO_x emissions will be limited through the use of low-sulfur diesel fuel. Tables 3.1-2 and 3.1-3 present the controlled criteria pollutant emissions for each emergency ICE generator and both (2) emergency ICE generators, respectively, based on the routine operating schedule presented in Table 2-1. Detailed emission calculations can be found in Appendix C of Attachment 3.1.

Table 3.1-2. Criteria Pollutant Emissions per Emergency ICE Generator

Pollutant	Uncontrolled Emission Factors (g/hp-hr)	Controlled Emissions per Generator ^a			
		(lb/hr)	(lb/day)	(lb/year) ^b	(tpy) ^b
NO _x	3.84	9.42	9.42	470.75	0.24
CO	0.16	0.39	0.39	19.61	0.01
VOC	0.20	0.49	0.49	24.52	0.01
PM ₁₀ /PM _{2.5}	0.02	0.007	0.007	0.368	0.0002
SO _x	0.005	0.01	0.01	0.60	0.0003

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Tables 3-1 and 3-2. April.
Notes:

g/hp-hr = gram(s) per horsepower-hour

lb/day = pound(s) per day

lb/hr = pound(s) per hour

lb/year = pound(s) per year

tpy = ton(s) per year

^a Controlled emissions account for the engine's add-on DPF, which achieves at least an 85 percent reduction of PM₁₀/PM_{2.5}.

^b Annual emissions assume routine operation of only 50 hours per year for maintenance and testing.

Table 3.1-3. Criteria Pollutant Emissions for Both (2) Emergency ICE Generators

Pollutant	Uncontrolled Emission Factors (g/hp-hr)	Controlled Emissions for Both (2) Generators ^a			
		(lb/hr)	(lb/day)	(lb/year) ^b	(tpy) ^b
NO _x	3.84	18.84	18.84	941.5	0.47
CO	0.16	0.78	0.78	39.22	0.02
VOC	0.20	0.98	0.98	49.04	0.02
PM ₁₀ /PM _{2.5}	0.02	0.014	0.014	0.736	0.0004
SO _x	0.005	0.02	0.02	1.20	0.0006

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Tables 3-1 and 3-3. April.
Notes:

^a Controlled emissions account for the engine's add-on DPF, which achieves at least an 85 percent reduction of PM₁₀/PM_{2.5}.

^b Annual emissions assume routine operation of only 50 hours per year for maintenance and testing.

Table 3.1-4 presents the GHG emissions for the emergency ICE generators, based on the routine operation of only 50 hours per year for maintenance and testing at 100 percent load (54.3 gallons per hour). Detailed emission calculations can be found in Appendix C of Attachment 3.1.

Table 3.1-4. GHG Emissions for Emergency ICE Generators

Pollutant	Emission Factors (kg/MMBtu)	Emissions per Generator ^a		Emissions for Both (2) Generators ^a	
		(tpy)	(tpy CO ₂ e) ^b	(tpy)	(tpy CO ₂ e) ^b
CO ₂	73.96	30.5	30.5	61.0	61.0
CH ₄	0.003	0.0012	0.03	0.0024	0.06
N ₂ O	0.0006	0.0002	0.07	0.0004	0.14
Total	--	--	30.65	--	61.30

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Tables 3-6 and 3-7. April.

Notes:

-- = No emission factor or emissions to be reported

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

kg/MMBtu = kilogram(s) per million British thermal unit

N₂O = nitrous oxide

^a Emissions assume routine operation of only 50 hours per year for maintenance and testing.

^b Emissions of each GHG are converted into CO₂e using the following global warming potentials: 1 for CO₂, 25 for CH₄, and 298 for N₂O.

3.1.3 Regulatory Requirements

3.1.3.1 Federal Regulations

The federal pre-construction Prevention of Significant Deterioration (PSD) program for sources subject to PSD pre-construction review permitting applies to sources located in attainment areas, which are classified as major sources. The AEC is subject to the PSD program. Therefore, PSD review applies to the proposed installation of two emergency diesel-fired ICE generators and is addressed in Section 3.1.3.2 below.

The federal operating permit program (Title V) and prohibitory rules applicable to the AEC are also addressed in Section 3.1.3.2 below.

3.1.3.2 Local Regulations

The SCAQMD has promulgated rules governing the need for sources to apply for pre-construction/operating permits and prohibitory rules. Below is an analysis of the SCAQMD rules applicable to the proposed installation of two emergency diesel-fired ICE generators at the AEC.

Rule 212 – Standards for Approving Permits and Issuing Public Notice

In accordance with Rule 212(c), public notice is required for:

- A project requesting installation of a new source or modification of an existing source, if the source is located within 1,000 feet of the outer boundary of a school, or
- A project resulting in a new or modified facility with onsite emission increases exceeding any of the daily maximums from Rule 212(g), or
- A project requesting installation of a new source or modification of an existing source, if the emission increases result in exposure to Maximum Individual Cancer Risk (MICR) greater than or equal to the applicable thresholds in Rule 212(c)(3)(A), or substances that pose a potential risk of nuisance.

The nearest K-12 school, Charles F. Kettering Elementary School, is located approximately 2,170 feet northwest of the west emergency ICE generator and 2,181 feet northwest of the east emergency ICE generator, both of which are more than 1,000 feet.

As shown in Table 3.1-5, the daily emissions increases resulting from installation of the new emergency ICE generators are below the daily maximums provided in Rule 212(g).

Table 3.1-5. Comparison to Rule 212(g) Thresholds

Pollutant	Daily Maximum Threshold (lb/day)	Project Increases (lb/day)	Thresholds Exceeded?
NO _x	40	18.84	N
CO	220	0.78	N
VOC	30	0.98	N
PM ₁₀ /PM _{2.5}	30	0.014	N
SO _x	60	0.02	N

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Table 4-1. April.

As discussed in Section 3.9.2, the project passes a Rule 1401 Tier 2 Screening Risk Assessment, indicating that the proposed installation of two emergency diesel-fired ICE generators is not expected to result in MICR greater than or equal to the applicable thresholds.

As described above, none of the Rule 212 criteria are exceeded; therefore, Rule 212 public notice is not required for this project.

Rule 301 – Permitting and Associated Fees

The processing fees were determined using Rule 301. Attachment 3.1 documents that the Project Owner has paid the applicable processing fees to SCAQMD and has requested expedited permit processing.

Rule 401 – Visible Emissions

The subject equipment combusts low-sulfur diesel fuel and has Tier 2-certified engines equipped with DPFs. Therefore, the subject equipment is not expected to result in visible emissions. Compliance with this rule is expected.

Rule 402 – Nuisance

This project is not expected to cause injury, detriment, nuisance, or annoyance to the public, based on the subject equipment combusting low-sulfur diesel fuel and having Tier 2-certified engines equipped with DPFs. Compliance with this rule is expected.

Rule 403 – Fugitive Dust

The fugitive dust emissions requirements set forth in Rule 403 will be adhered to by the Project Owner during operation, as applicable. No significant fugitive dust emissions are expected from the facility during normal operations or due to the proposed installation of two emergency diesel-fired ICE generators. Therefore, compliance with this rule is expected.

Rule 404 – Particulate Matter – Concentration

The subject equipment combusts low-sulfur diesel fuel and has Tier 2-certified engines equipped with DPFs. Therefore, the subject equipment is not expected to result in PM₁₀/PM_{2.5} emissions greater than the concentration limits established in SCAQMD Rule 404, Table 404(a). Compliance with this rule is expected.

Rule 407 – Liquid and Gaseous Air Contaminants

This rule prohibits an operator from discharging sulfur dioxide (SO₂) and CO into the atmosphere from any equipment in excess of 500 parts per million by volume dry (ppmvd) and 2,000 ppmvd, respectively. However, per SCAQMD Rule 407(b)(1), the provisions of this rule do not apply to stationary ICEs. Therefore, compliance with this rule is not required for the project's new emergency ICE generators.

Rule 409 – Combustion Contaminants

This rule prohibits an owner/operator from discharging into the atmosphere from any equipment combustion contaminants exceeding 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide (CO₂) at standard conditions averaged over a minimum of 15 consecutive minutes. However, the provisions of this rule do not apply to ICEs. Therefore, compliance with this rule is not required for the project's new emergency ICE generators.

Rule 431.2 – Sulfur Content of Liquid Fuels

This rule reduces SO_x emissions from diesel fuel combustion by limiting sulfur content of diesel fuel to 15 parts per million (ppm) by weight. The subject equipment combusts low-sulfur diesel fuel; therefore, compliance with this rule is expected.

Rule 474 – Fuel Burning Equipment – Oxides of Nitrogen

This rule is superseded by the requirements of the NO_x Regional Clean Air Incentives Market (RECLAIM) Program, per Rule 2001(j).

Rule 475 – Electric Power Generating Equipment

This rule limits an owner/operator from discharging combustion contaminants into the atmosphere from any electric power generating equipment with a maximum rating of more than 10 megawatts (MW). Since the electric generating potential of each emergency ICE generator is less than 10 MW, the provisions of this rule do not apply, and compliance is not required.

Regulation IX – New Source Performance Standards

The New Source Performance Standards (NSPS) establish emission standards for specific emission sources, as published in the Code of Federal Regulations (CFR) and in the Federal Register (FR) by the EPA. The following NSPS is applicable to AEC's proposed new emergency ICE generators.

40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression-Ignition Internal Combustion Engines

This rule establishes emission standards, fuel requirements, and monitoring and reporting requirements for manufacturers, owners, and operators of stationary compression-ignition (CI) ICEs. Per 40 CFR 60.4205(b), emergency stationary CI ICEs of model year 2007 and later with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new non-road CI engines for the same model year and maximum engine power, as established in 40 CFR 1039, Appendix I. The Tier 2 emission standards for engines with a maximum engine power rating greater than 560 kilowatts (kW; 750 bhp) and constructed after 2006 are shown in Table 3.1-6 below.

Table 3.1-6. Tier 2 Emission Standards

Pollutant	Emission Standard (g/kWh)	Emission Standard (g/hp-hr)
NO _x	6.4	4.8
CO	3.5	2.6
PM ₁₀ /PM _{2.5}	0.2	0.15

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Table 4-3. April.

Note:

g/kWh = gram(s) per kilowatt-hour

The proposed emergency ICE generators will be Tier 2 engines; therefore, compliance with the above emission standards is expected.

Compliance with the diesel fuel requirements of 40 CFR 60.4207(b) is expected to be met through compliance with the sulfur content requirements of SCAQMD Rule 431.2.

40 CFR 60.4211(f) also limits annual operation of emergency stationary CI ICEs as follows:

- No limit on use for emergency purposes.
- A maximum of 100 hours per year for maintenance and testing, emergency demand response, and to provide power during periods of voltage or frequency deviations.
- A maximum of 50 hours per year for non-emergency purposes, which counts towards the 100-hour limit noted above.

The Project Owner intends to operate the two emergency ICE generators no more than 50 hours per year for maintenance and testing purposes. Therefore, compliance with these hour restrictions is expected.

The NSPS includes other monitoring, recordkeeping, and reporting requirements. The Project Owner will demonstrate compliance by operating and maintaining the ICE generators and their control devices in accordance with the manufacturer's recommendations.

Regulation X – National Emission Standards for Hazardous Air Pollutants

The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulate the emissions of Hazardous Air Pollutants (HAP) from specific emission sources. These regulations are periodically updated to reflect actions by the EPA. The following NESHAP is applicable to AEC's proposed new emergency ICE generators.

40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

This rule applies to stationary reciprocating ICEs located at major or area sources of HAP emissions. A major source is defined as a facility with emissions of 10 tons per year (tpy) or more of a single HAP or 25 tpy or more of any combination of HAPs; an area source is defined as a facility that is not a major source. Because AEC is considered an area source of HAP emissions, in accordance with 40 CFR 63.6590(c)(1), the requirements of 40 CFR 63, Subpart ZZZZ will be met through expected compliance with the requirements of 40 CFR 60, Subpart IIII, as described above.

Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines

This rule seeks to reduce NO_x, VOC, and CO emissions from stationary and portable engines with a maximum power rating greater than 50 bhp. This rule does not, however, apply to emergency standby engines operating no more than 200 hours per year, as evidenced by a non-resettable engine hour meter or equivalent method, per Rule 1110.2(i)(B). Because operations of each proposed emergency ICE

generator will be limited to no more than 200 hours per year per the permit conditions issued by SCAQMD, the provisions of this rule are not applicable to the proposed project.

Regulation XIII – New Source Review

The proposed installation of two emergency ICE generators results in an emission increase of nonattainment pollutants; therefore, new source review is required. However, as AEC is subject to RECLAIM for NO_x, Regulation XIII is not applicable for NO_x. Key provisions of Regulation XIII are separately addressed below.

Rule 1303 – Requirements

Rule 1303 requires use of best available control technology (BACT), emissions modeling, and emission offsets. However, per Rule 1304(a)(4), emergency equipment operating no more than 200 hours per year, as evidenced by a non-resettable engine hour meter or equivalent method, are exempt from the modeling and offset requirements of Rule 1303(b)(1) and (b)(2). Therefore, only the BACT requirements are addressed below.

Additional review under Rule 1303(b)(5), including an alternative analysis, demonstration of statewide compliance, and protection of visibility, is not required for the proposed project as the annual and daily emission increases are less than the major modification thresholds specified in Rule 1302(r), as presented in Table 3.1-7 below.

Table 3.1-7. Comparison to Rule 1302(r) Major Modification Thresholds

Pollutant	Major Modification Threshold	Project Increases	Thresholds Exceeded?
CO	50 tpy	0.02 tpy	N
VOC	1 lb/day	0.98 lb/day ^a	N
PM ₁₀ /PM _{2.5}	15 tpy	0.0004 tpy	N
SO _x	40 tpy	0.0006 tpy	N

Note:

^a Conservatively presented as the maximum daily emissions increase.

Best Available Control Technology. In accordance with Rule 1303(a), BACT is required for new and modified equipment. Based on a review of Part B, Section I of SCAQMD's *BACT Guidelines*,¹ BACT for a similarly-sized CI diesel-fired emergency engine is a certified Tier 2 engine with a CARB-verified DPF to reduce the maximum daily potential to emit (PTE) of PM₁₀ and PM_{2.5} to less than 1 pound per day. The proposed emergency generators meet the required emission standards; therefore, BACT is satisfied.

Rule 1325 – Federal PM_{2.5} New Source Review Program

Rule 1325 applies to any new major polluting facility, major modifications to a major polluting facility, and any modification to an existing facility that would constitute a major polluting facility in and of itself that will emit PM_{2.5} or its precursors (NO_x, SO₂, VOC, and ammonia). Rule 1325(b)(4) defines a major polluting facility as a facility located in a federal nonattainment area with a PTE greater than 70 tpy of PM_{2.5} or any of its precursors. A major modification is any change resulting in a significant emissions increase (40 tpy of NO_x, SO₂, VOC, or ammonia or 10 tpy of PM_{2.5}).

As shown in Table 3.1-3, the highest increase in criteria pollutant emissions is expected to be less than 1 tpy. As such, the proposed installation does not result in a significant emissions increase of PM_{2.5} or its precursors and is not subject to PM_{2.5} new source review under Rule 1325.

¹ Available online at <http://www.aqmd.gov/home/permits/bact/guidelines/i---scaqmd-laer-bact#sectionI>.

Rule 1401 – New Source Review for Air Toxics

Per Rule 1401(g)(1)(F), emergency ICEs that are exempted under SCAQMD Rule 1304 are not required to comply with the requirements of Rule 1401. As previously described, these emergency ICE generators will meet the exemption criteria of Rule 1304(a)(4); therefore, compliance with Rule 1401 is not required.

Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

This rule applies to any stationary CI engine with a maximum power rating of greater than 50 bhp. The rule requires the following for new emergency engines with a maximum power rating of greater than 750 bhp and located more than 500 feet from a school or sensitive receptor:

- Use CARB low-sulfur diesel fuel
- Operate no more than 50 hours per year for maintenance and testing
- Use a certified CI engine that emits:
 - DPM at a rate less than or equal to 0.20 grams per kilowatt-hour (g/kWh; 0.15 grams per horsepower-hour [g/hp-hr])
 - Non-methane hydrocarbons (NMHC) + NOX at a rate less than or equal to 6.4 g/kWh (4.8 g/hp-hr)
 - CO at a rate less than or equal to 3.5 g/kWh (2.6 g/hp-hr)

AES will use low-sulfur diesel fuel and a permit condition that limits annual operation per ICE generator to 50 hours per year for maintenance and testing purposes has been incorporated in the PTC/PTO issued by SCAQMD, as presented in Attachment 3.2. The proposed ICE generators will also comply with the applicable emission standards as Tier 2-certified engines. Therefore, compliance with this rule is expected.

Rule 1472 – Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines

This rule strives to reduce DPM emissions from facilities with three or more stationary emergency standby diesel-fired ICEs, each with a maximum power rating greater than 50 bhp. Compliance with this rule is not required because AES does not currently operate any stationary emergency standby diesel-fired ICEs at the AEC and only two applicable emergency ICE generators will be installed for this proposed project.

Regulation XVII – Prevention of Significant Deterioration

The proposed installation of two emergency ICE generators results in an emission increase of attainment pollutants; therefore, PSD review is required for PM₁₀ (24-hour NAAQS), CO, NO_x, and SO_x. The applicable provision of Regulation XVII is addressed below.

Rule 1703 – PSD Analysis

Rule 1703(a)(2) requires BACT for each criteria pollutant for which there is a net emission increase. As described previously, BACT for a similarly-sized CI diesel-fired emergency engine is a certified Tier 2 engine with a CARB-verified DPF. The proposed emergency ICE generators will meet the required emission standards; therefore, BACT is satisfied.

As shown in Table 3.1-3, the highest increase in criteria pollutant emissions is expected to be less than 1 tpy. As such, the increase in PTE does not constitute a significant emissions increase of attainment pollutants, as defined in Rule 1702(s).² The AEC is also not located within 10 kilometers of a Class I area. Therefore, additional evaluation under Rule 1703(a)(3) is not required.

² The significant increase thresholds are as follows: 100 tpy for CO, 40 tpy for SO₂ and NO_x, 15 tpy for PM₁₀, and 40 tpy for VOC.

Regulation XX

Regulation XX establishes the requirements for the RECLAIM Program. AEC is a NO_x RECLAIM facility. As such, new source review for NO_x is addressed under Rule 2005, as described below, rather than under Rule 1303. The Project Owner is expected to continue complying with the NO_x monitoring, recordkeeping, and reporting requirements of Rule 2012.

Rule 2005 – New Source Review for RECLAIM

Rule 2005(c)(1)(A) requires BACT for emission increases of NO_x. Rule 2005(d) defines an emission increase to occur if a source's post-project maximum hourly PTE is greater than the source's pre-project maximum hourly PTE. Because the proposed installation of two emergency ICE generators will increase the facility's maximum hourly NO_x emissions, a BACT analysis is required. As described previously, BACT for a similarly-sized CI diesel-fired emergency engine is a certified Tier 2 engine with a CARB-verified DPF. The proposed emergency ICE generators will meet the required emission standards; therefore, BACT is satisfied.

Rule 2005(c)(1)(B) requires that new or modified source(s) at existing RECLAIM facilities will not exceed nitrogen dioxide (NO₂) ambient air quality standards. However, equipment used exclusively on a standby basis in case of emergency with annual operation limited to 200 hours per year, as evidenced by a non-resettable engine hour meter or equivalent method, is exempt from this requirement per Rule 2005(k)(5). Therefore, modeling is not required for the proposed project.

Rule 2005(c)(2) requires facilities to hold sufficient RECLAIM Trading Credits (RTCs) to offset the initial year of an emissions increase of NO_x. The proposed installation of two emergency ICE generators will increase the facility's annual emissions, requiring RTCs to be provided at a 1-to-1 ratio. Assuming 50 hours of operation per year at maximum load (54.3 gallons per hour), the Project Owner must provide 471 pounds of NO_x RTCs per generator (942 pounds of NO_x RTCs total) for the first year of operation.³

Rule 2005(g) requires additional review of new major polluting facilities and major modifications at major polluting facilities. AEC is considered a major polluting facility, such that a major modification would be triggered if daily emissions of NO_x or VOC increased by more than 1 pound. As shown in Table 3.1-3, the proposed installation of two emergency ICE generators will increase daily emissions by more than 1 pound; therefore, the proposed installation does constitute a major modification and additional review under Rule 2005(g) is required, as follows:

- The Project Owner's major stationary sources are in compliance with applicable federal emission limits and standards, as certified by the SCAQMD within the Statement of Basis issued for Application Numbers 636578, 636579, and 636580.
- The requirement for an alternatives analysis under Rule 2005(g)(2) is met by compliance through the California Environmental Quality Act (CEQA), as allowed under Rule 2005(g)(3). Specifically, the approval of this PTA by the CEC satisfies the requirement for an environmental review under Rule 2005(g)(3)(C).
- A protection of visibility analysis under Rule 2005(g)(4) is not required because the net emissions increase associated with the proposed installation does not exceed 40 tpy of NO_x.

Regulation XXX – Title V

As described in Rule 3000(a), the Title V Facility Permit system is the air pollution control permit system implementing the federal Operating Permit Program as required by Title V of the federal Clean Air Act, as amended in 1990, and to implement requirements for GHGs pursuant to 40 CFR 70. Regulation XXX

³ Calculated assuming an emission factor of 173.48 pounds NO_x per 1,000 gallons, as detailed in Section 4.9.3 of Attachment 3.1.

defines the Title V Facility Permit application and issuance procedures under the SCAQMD's jurisdiction, as well as compliance requirements associated with the program.

The proposed installation of two emergency ICE generators is considered a Significant Permit Revision under Rule 3000(b)(31)(I). As such, Rule 3005(f) requires the submittal of a permit revision application with contents as specified in Rule 3003. Pursuant to Rule 3003(j), prior to approval and issuance of the PTC/PTO for this proposed project, SCAQMD submitted a proposed draft permit and associated documents to EPA for a 45-day review period on June 17, 2022, and no comments were received by SCAQMD. In addition, pursuant to Rule 3006, the draft permit for this proposed project was made available by SCAQMD for at least a 30-day public comment period on or about June 21, 2022, and no comments were received from the public.

3.1.3.3 State Regulations

CARB is responsible for actions to protect public health from harmful effects of air pollution in communities in California. In support of this responsibility, CARB has promulgated Airborne Toxic Control Measures (ATCM) for several source categories that are codified in the CCR. Below is an analysis of the CARB ATCM applicable to the proposed installation of two emergency diesel-fired ICE generators at the AEC.

Airborne Toxic Control Measure for Stationary Compression-Ignition Engines

The purpose of this ATCM (Title 17, CCR, Section 93115) is to reduce DPM and criteria pollutant emissions from stationary diesel-fired CI engines with a maximum power rating greater than 50 bhp. The ATCM requires the use of CARB low-sulfur diesel fuel or other low-sulfur fuels (Title 17, CCR, Section 93115.5), as well as the following operational restrictions (Title 17, CCR, Section 93115.6(a)(2)):

"No owner or operator shall operate any new stationary emergency standby diesel-fueled CI engine (>50 bhp) in response to the notification of an impending rotating outage, unless all the following criteria are met:

- (A) The engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the [SCAQMD] has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
- (B) The Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated It expects to issue such an order at a specified time; and
- (C) The engine is located in a specific location that is subject to the rotating outage; and
- (D) The engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
- (E) The engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect."

The ATCM establishes the emission standards identified in Table 3.1-8, below, for new emergency standby CI engines with a maximum power rating of 750 bhp or greater. These emission standards are consistent with those required under 40 CFR 60, Subpart IIII.

Table 3.1-8. ATCM Emission Standards

Pollutant	Emission Standard (g/kWh)	Emission Standard (g/hp-hr)
NMHC + NO _x	6.4	4.8
CO	3.5	2.6
PM ₁₀ /PM _{2.5}	0.2	0.15

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Table 4-4. April.

Per Title 17, CCR, Section 93115.6(a)(3)(A)(1)(c), new emergency standby CI engines with a maximum power rating greater than 50 bhp may not operate more than 50 hours per year for maintenance and testing purposes. Note that operation for emergency use is not restricted by the ATCM. To monitor hours of use, the engine must also be equipped with a non-resettable hour engine meter with a minimum display capability of 9,999 hours (Title 17, CCR, Section 93115.10(d)). Additional monthly recordkeeping provisions are specified in Title 17, CCR, Section 93115.10(f).

The proposed emergency ICE generators will be operated using CARB low-sulfur diesel fuel and equipped with EPA Tier 2-certified engines guaranteed to meet the ATCM's emission limits. The operating restrictions for emergency use and maintenance and testing, requirements for a non-resettable hour meter, and monthly recordkeeping requirements have been incorporated into the PTC/PTO issued by SCAQMD. The engine records will be maintained at the facility and available for review upon request. Therefore, compliance with this ATCM is expected.

3.1.4 Mitigation Measures

The proposed installation of two emergency ICE generators will not create a significant air quality or GHG impact and will not require additional mitigation measures beyond an increase in RECLAIM NO_x RTCs.

3.1.5 Consistency with LORS

The above analysis demonstrates that installation of two emergency ICE generators will not cause or contribute to the violation of an ambient air quality standard. Therefore, the AEC, as modified, will comply with applicable federal, state, and local air quality LORS.

Additionally, for purposes of demonstrating compliance with CEQA, comparison to the SCAQMD's criteria pollutant and GHG significance thresholds is presented in Table 3.1-9 below. As shown, the emission increases associated with the proposed project do not exceed SCAQMD's significance thresholds, thereby implying less-than-significant air quality and GHG impacts.

Table 3.1-9. Comparison to SCAQMD Significance Thresholds

Pollutant	Project Increases	Significance Threshold	Threshold Exceeded?
NO _x	18.84 lb/day	55 lb/day	N
VOC	0.98 lb/day	55 lb/day	N
PM ₁₀	0.014 lb/day	150 lb/day	N
PM _{2.5}	0.014 lb/day	55 lb/day	N
SO _x	0.02 lb/day	150 lb/day	N
CO	0.78 lb/day	550 lb/day	N
CO ₂ e	54.73 MT/year	10,000 MT/year	N

Source: South Coast Air Quality Management District (SCAQMD). 2019. *South Coast AQMD Air Quality Significance Thresholds*. April.

Note:

MT = metric ton(s)

Lastly, although the proposed project does constitute a major modification under SCAQMD Rule 2005(g), the requirements for an alternative analysis, demonstration of statewide compliance, and protection of visibility are not applicable, not required, or met through the CEC's CEQA-equivalent licensing process, as described in Section 3.1.3.2.

3.1.6 Conditions of Certification

The proposed installation will require new COCs related to air quality. The Project Owner expects that the permit conditions in the PTC/PTO issued by SCAQMD will be incorporated as part of the new Air Quality COCs.

3.2 Biological Resources

3.2.1 Environmental Setting

This PTA does not require changes to the biological resources setting described in the Final Decision and subsequent amendments.

3.2.2 Environmental Consequence

The proposed installation of two emergency diesel-fired ICE generators will not result in any changes to habitat or physical disturbance of special-status species, natural or cropland vegetation, soils, wetlands, vernal pools or vernal swales; interfere with wildlife or aquatic species movement; or conflict with any local policies/ordinances or any approved/adopted conservation plans.

The proposed installation will, however, increase the AEC's NO_x PTE above the licensed annual emissions of 153.08 tpy by less than 0.5 percent.⁴ This minimal increase in NO_x emissions has the potential to minimally increase the already less-than-significant nitrogen deposition impacts analyzed during licensing. During licensing, CEC staff noted that the air dispersion modeling performed to predict AEC's nitrogen deposition was likely an overprediction of the actual nitrogen deposition by as much as 10-fold and, therefore, was not expected to approach the critical nitrogen deposition levels for nearby sensitive habitats. Staff also concluded that the project area's nitrogen emissions inventory and baseline nitrogen deposition levels have decreased by more than 50 percent since the reporting of nitrogen deposition levels in 2002.⁵ Based on the conservative nature of the nitrogen deposition analysis, the proposed increase in AEC's NO_x emissions is not expected to alter or undermine the conclusions reached by the CEC staff in the Final Decision and subsequent amendments. Therefore, the modified project is expected to result in less-than-significant impacts to biological resources.

3.2.3 Mitigation Measures

The proposed installation will not create a significant biological resources impact and will not require additional mitigation measures.

3.2.4 Consistency with LORS

The modified project conforms to applicable LORS related to biological resources.

3.2.5 Conditions of Certification

The proposed installation does not require changes to the COCs for biological resources.

3.3 Cultural Resources

3.3.1 Environmental Setting

This PTA does not require changes to the cultural resources setting described in the Final Decision and subsequent amendments.

⁴ California Energy Commission (CEC). 2021. *Staff Analysis of Petition to Amend the Commission Decision*. May. Page 29, Air Quality Table 13.

⁵ California Energy Commission (CEC). 2016. *Final Staff Assessment, Part 1 for the Alamos Energy Center (AEC)*. September. CEC-700-2016-004-FSA-PT1, Pages 4.2-34 to 4.2-37.

3.3.2 Environmental Consequences

The proposed installation will require only minor earth-moving/excavations for the foundation installation within previously disturbed soils and is not, therefore, expected to impact native soils. Additionally, the proposed installation of equipment within the CCGT power block does not materially alter the physical appearance of the project, which could potentially impact nearby historic properties. Therefore, no impacts to cultural resources are expected.

3.3.3 Mitigation Measures

No cultural resources impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.3.4 Consistency with LORS

The modified project conforms to applicable LORS related to cultural resources.

3.3.5 Conditions of Certification

The proposed installation does not require changes to the COCs for cultural resources.

3.4 Energy and Energy Resources

3.4.1 Environmental Setting

This PTA proposes to secure the available energy resources in the project area by maintaining CCGT power block operations in the event of loss of grid power.

3.4.2 Environmental Consequences

The proposed installation will not result in potentially significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources. The AEC only operates when called on by the balancing authority, after preferred energy resources have been exhausted, and installation of two emergency diesel-fired ICE generators will maintain AEC's availability to operate in the event of loss of grid power. Furthermore, the potential increase in AEC's operational emissions would not conflict with or obstruct state or local planning efforts for the implementation of renewable energy or energy efficiency projects. Therefore, no impacts to energy or energy resources are expected.

3.4.3 Mitigation Measures

No energy or energy resources impacts are expected from the proposed modification. Therefore, no additional mitigation measures are required.

3.4.4 Consistency with LORS

The modified project conforms to applicable LORS related to energy and energy resources.

3.4.5 Conditions of Certification

The Final Decision and subsequent amendments did not include COCs for energy or energy resources and, as impacts are considered less than significant, none are required.

3.5 Geological and Paleontological Resources

3.5.1 Environmental Setting

This PTA does not require changes to the geological and paleontological resources setting described in the Final Decision and subsequent amendments.

3.5.2 Environmental Consequences

The proposed installation will require only minor ground disturbance/excavations for the foundation installation within previously disturbed soil and no additional geologic resources or geologic hazards have been identified in the project area. Therefore, no impacts to geological and paleontological resources are expected.

3.5.3 Mitigation Measures

No geological and paleontological resources impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.5.4 Consistency with LORS

The modified project conforms to applicable LORS related to geological and paleontological resources.

3.5.5 Conditions of Certification

The proposed modification does not require changes to the COCs for geological and paleontological resources.

3.6 Hazardous Materials Management

3.6.1 Environmental Setting

This PTA does not require changes to the hazardous materials management setting described in the Final Decision and subsequent amendments.

3.6.2 Environmental Consequences

The proposed installation of two emergency diesel-fired ICE generators will require the storage of additional diesel onsite than was assumed during licensing of the AEC. As diesel fuel and other hazardous materials (petroleum products) are routinely handled, used, and stored onsite, the addition of two emergency diesel-fired ICE generators does not introduce a new or unique hazardous material to the AEC site. Therefore, the increase in volume of diesel fuel storage does not result in any greater risk to the public or environment than already established in the Final Decision and subsequent amendments. Furthermore, continued implementation of existing COCs HAZ-1, HAZ-2, HAZ-3, and HAZ-6 will reduce any impacts to less-than-significant levels. Therefore, no impacts from hazardous materials management are expected.

3.6.3 Mitigation Measures

No hazardous materials management impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.6.4 Consistency with LORS

The modified project conforms to applicable LORS related to hazardous materials management.

3.6.5 Conditions of Certification

The proposed installation does not require changes to the COCs for hazardous materials management.

3.7 Land Use

3.7.1 Environmental Setting

This PTA does not require changes to the land use setting described in the Final Decision and subsequent amendments.

3.7.2 Environmental Consequences

The proposed installation does not physically divide an established community. The project change is consistent with existing land uses in the project vicinity, the policy for consistent land use designation/zoning district, and other applicable policies. Therefore, no impacts to land use are expected.

3.7.3 Mitigation Measures

No land use impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.7.4 Consistency with LORS

The modified project conforms to applicable LORS related to land use.

3.7.5 Conditions of Certification

The Final Decision and subsequent amendments did not include COCs for land use and, as impacts are not expected, none are required.

3.8 Noise and Vibration

3.8.1 Environmental Setting

This PTA does not require changes to the noise and vibration setting described in the Final Decision and subsequent amendments.

3.8.2 Environmental Consequences

The proposed installation will not increase noise or vibration-producing activities at the site beyond those analyzed during licensing of the AEC. Therefore, the proposed installation will not alter the noise or vibration impacts of the project.

3.8.3 Mitigation Measures

The proposed installation will not create a significant noise and vibration impact and will not require additional mitigation measures.

3.8.4 Consistency with LORS

The modified project conforms to applicable LORS related to noise and vibration.

3.8.5 Conditions of Certification

The proposed installation does not require changes to the COCs for noise and vibration.

3.9 Public Health

3.9.1 Environmental Setting

This PTA does not require changes to the public health setting described in the Final Decision and subsequent amendments.

3.9.2 Environmental Consequences

The proposed installation of two emergency diesel-fired ICE generators will increase onsite diesel fuel consumption, which will increase DPM emissions. Table 3.9-1 presents hourly and annual emissions for the ICE generators, assuming Tier 2 engine standards with an add-on DPF to reduce emissions by at least 85 percent.

Table 3.9-1. DPM Emissions for Emergency ICE Generators

Source	Uncontrolled Emission Factor (g/hp-hr)	DPM Emissions (lb/hr)	(lb/year)
Per ICE Generator	0.02	0.007	0.37
Total (2) Generators	0.02	0.014	0.74

Source: Yorke Engineering, LLC. 2022. *Applications for Permits to Construct: Two Emergency IC Engines*. Table 2-3. April.

SCAQMD Rule 1401 establishes allowable limits for MICR, cancer burden, chronic hazard index (HI), and acute HI for new permit units emitting any of the toxic air contaminants (TACs) specified in Rule 1401, Table 1, including DPM. However, per SCAQMD Rule 1401(g)(1)(F), emergency ICEs that are exempted under SCAQMD Rule 1304 are not required to determine associated health risks. Because AES is permitting these ICE generators as emergency units only, a determination of health risk is not required, and public health impacts associated with their operation are expected to be less than significant.

To support this conclusion, a Rule 1401 Tier 2 Screening Risk Assessment was conducted assuming a generator operating schedule of 1 hour per day, 1 day per week, and 50 weeks per year for maintenance and testing purposes. As shown in Appendix D of Attachment 3.1, the proposed project passes the assessment, indicating that installation of the two emergency ICE generators will not result in an increase in MICR greater than or equal to 1 in 1 million or a chronic HI greater than 1 at any residential or worker receptor.

3.9.3 Mitigation Measures

The proposed installation will result in less-than-significant impacts on public health. Therefore, no additional mitigation measures are required.

3.9.4 Consistency with LORS

The modified project conforms to applicable LORS related to public health.

Additionally, as demonstrated through the Rule 1401 Tier 2 Screening Risk Assessment results presented in Appendix D of Attachment 3.1, the increase in emissions resulting from installation of the two

emergency ICE generators will not cause a MICR or chronic HI greater than the significance thresholds for purposes of complying with CEQA.

3.9.5 Conditions of Certification

The Final Decision and subsequent amendments did not include COCs for public health and, as impacts are considered less than significant, none are required.

3.10 Socioeconomics

3.10.1 Environmental Setting

This PTA does not require changes to the socioeconomic setting described in the Final Decision and subsequent amendments.

3.10.2 Environmental Consequences

The proposed installation of two emergency diesel-fired ICE generators will not alter the basis of the CEC's determination that AEC will not have a significant impact on socioeconomics. Therefore, no significant socioeconomics impacts are expected.

3.10.3 Mitigation Measures

No socioeconomics impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.10.4 Consistency with LORS

The modified project conforms to applicable LORS related to socioeconomics.

3.10.5 Conditions of Certification

The proposed installation does not require changes to the COCs for socioeconomics.

3.11 Soil and Water Resources

3.11.1 Environmental Setting

This PTA does not require changes to the soil and water resources setting described in the Final Decision and subsequent amendments.

3.11.2 Environmental Consequences

The proposed installation will require only minor ground disturbance/excavations for the foundation installation within previously disturbed soil, occurs entirely within the developed project site, and will not result in an increase in water consumption or discharge. Therefore, no impacts to soil or water resources are expected.

3.11.3 Mitigation Measures

No soil and water resources impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.11.4 Consistency with LORS

The modified project conforms to applicable LORS related to soil and water resources.

3.11.5 Conditions of Certification

The proposed installation does not require changes to the COCs for soil and water resources.

3.12 Traffic and Transportation

3.12.1 Environmental Setting

This PTA does not require changes to the traffic and transportation setting described in the Final Decision and subsequent amendments.

3.12.2 Environmental Consequences

The proposed installation of two emergency diesel-fired ICE generators may require 1 to 2 additional diesel deliveries per year. This increase in truck deliveries to the site does not result in a material increase in traffic in the project area. Therefore, no significant impacts to traffic or transportation are expected.

3.12.3 Mitigation Measures

The proposed installation will not create a significant traffic and transportation impact and will not require additional mitigation measures.

3.12.4 Consistency with LORS

The modified project conforms to applicable LORS related to traffic and transportation.

3.12.5 Conditions of Certification

The proposed installation does not require changes to the COCs for traffic and transportation.

3.13 Visual Resources

3.13.1 Environmental Setting

This PTA does not require changes to the visual resources setting described in the Final Decision and subsequent amendments.

3.13.2 Environmental Consequences

The proposed installation of two emergency diesel-fired ICE generators within the existing CCGT power block will not materially alter the physical appearance of the project. The operation of the ICE generators will not create a visible plume. Therefore, no impacts to visual resources are expected.

3.13.3 Mitigation Measures

No visual resources impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.13.4 Consistency with LORS

The modified project conforms to applicable LORS related to visual resources.

3.13.5 Conditions of Certification

The proposed installation does not require changes to the COCs for visual resources.

3.14 Waste Management

3.14.1 Environmental Setting

This PTA does not require changes to the waste management setting described in the Final Decision and subsequent amendments.

3.14.2 Environmental Consequences

The proposed installation will not result in an increase in waste generation at the site. Therefore, no impacts to waste management are expected.

3.14.3 Mitigation Measures

No waste management impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.14.4 Consistency with LORS

The modified project conforms to applicable LORS related to waste management.

3.14.5 Conditions of Certification

The proposed installation does not require changes to the COCs for waste management.

3.15 Wildfire

3.15.1 Environmental Setting

The AEC site is not located in or near a State Responsibility Area or a very high Fire Hazard Severity Zone.

3.15.2 Environmental Consequences

The proposed installation of two emergency diesel-fired ICE generators will not substantially impair an adopted emergency response/evacuation plan, expose project occupants to pollution concentrations from a wildfire, require installation or maintenance of associated infrastructure that may exacerbate fire risk, or expose people or structures to significant risks due to flooding or landslides.

3.15.3 Mitigation Measures

No wildfire impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.15.4 Consistency with LORS

The modified project conforms to applicable LORS related to wildfire.

3.15.5 Conditions of Certification

The Final Decision and subsequent amendments did not include COCs for wildfire and, as no impacts are expected, none are required.

3.16 Worker Safety and Fire Protection

3.16.1 Environmental Setting

This PTA does not require changes to the worker safety and fire protection setting described in the Final Decision and subsequent amendments.

3.16.2 Environmental Consequences

The proposed installation will neither increase workers' exposure to health and safety hazards nor negatively impact the availability and adequacy of fire protection and emergency response services. Therefore, no impacts to worker safety and fire protection are expected.

3.16.3 Mitigation Measures

No worker safety and fire protection impacts are expected from the proposed installation. Therefore, no additional mitigation measures are required.

3.16.4 Consistency with LORS

The modified project conforms to applicable LORS related to worker safety and fire protection.

3.16.5 Conditions of Certification

The proposed installation does not require changes to the COCs for worker safety and fire protection.

4. Potential Effects on the Public

This section discusses the potential effects on the public that may result from the modification proposed in this PTA, in accordance with CEC Siting Regulations (Title 20, CCR, Section 1769(a)(1)(F)).

With implementation of the proposed change, the project would have no adverse effect on the public. As previously mentioned, the operation of AEC's two new emergency diesel-fired ICE generators will result in an increase in maximum potential air emissions; however, the potential impacts associated with this increase in emissions will be reduced to less-than-significant levels by surrendering additional NO_x RTCs. Amending the air quality COCs does not adversely affect the public because the facility will still adhere to the conditions in the project's Title V Facility Permit, as well as all other COCs contained in the amended CEC license. The modifications will occur entirely onsite, and air quality and public health impacts are not expected to result in unmitigated significant impacts on the public. Therefore, no significant adverse effects on the public will occur because of the project change proposed in this PTA.

5. List of Property Owners

In accordance with the CEC Siting Regulations (Title 20, CCR, Section 1769(a)(1)(G)), a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of any affected project linears and 1,000 feet of the project site will be provided under separate cover. Since the proposed change does not affect any project linears, only the list of parcel owners within 1,000 feet of the project site will be provided.

6. Potential Effects on Property Owners, the Public, and Parties in the Proceeding

This section addresses potential effects of the project change proposed in this PTA on nearby property owners, the public, and parties in the application proceeding, in accordance with CEC Siting Regulations (Title 20, CCR, Section 1769(a)(1)(H)).

As set forth in Section 3, the proposed installation of two emergency diesel-fired ICE generators will not result in any potentially significant impacts and the project will remain in compliance with all applicable LORS. The project, as modified, will not differ significantly in potential effects on adjacent land owners, compared with the project as certified. The project, therefore, would have no adverse effects on nearby property owners, the public, or other parties in the application proceeding.

7. Potentially Applicable CEQA Exemptions

This section includes a discussion of any exemptions from CEQA, commencing with Section 21000 of the Public Resources Code, that the Project Owner believes may apply to approval of the proposed change. Given the operational changes proposed, the CEQA exemption for Air Quality Permits (Title 14, CCR, Section 15281) would not apply in this case, and no other exemptions appear to be applicable.

Attachment 3.1

AEC Air Permit Application



SCAQMD Permit Processing Fees Portal

Hide Tooltip

Fee Sheet

Below are the permit fees calculated based on the information entered. Click the "Print" button to print the Fee Sheet for your records.

Print

Restart

Permit Unit

IC Engine, Emergency, (> 500 HP)	\$3,859.15
IC Engine, Emergency, (> 500 HP) (1 Identical)	\$1,929.58
Expedited Processing Fee	\$2,894.37

Facility Permit Revision Fee

Administrative Permit Revision Fee	\$2,853.99
------------------------------------	------------

Summary

Permit Fees	\$5,788.73
Expedited Processing Fees	\$2,894.37
Higher Fees	\$0.00
Small Business Discount	\$0.00
Administrative Permit Revision Fee	\$2,853.99
Total:	\$11,537.09

Back

Generate Voucher

AES Alamitos, LLC

**690 N Studebaker Rd
Long Beach, CA 90803**

**SCAQMD Facility ID:
115394**

April 2022

Prepared by:



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Application for Permits to Construct: Two Emergency IC Engines

Application for Permits to Construct: Two Emergency IC Engines

Prepared for:

**AES Alamitos, LLC
690 N Studebaker Road
Long Beach, CA 90803**

SCAQMD Facility ID: 115394

April 2022

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Application for Permits to Construct: Two Emergency IC Engines

1.0 INTRODUCTION

AES Alamitos, LLC (AES) is submitting this application requesting Permits to Construct (PTC) for two 1,112 brake horsepower (bhp) emergency diesel-fired internal combustion engine (ICE) generators that are proposed to be installed in the combine cycle gas turbine (CCGT) power block. These two emergency ICE generators will be used to provide emergency power supply to critical plant equipment, which is required to maintain operations during the gas turbine shutdown periods, in the event of loss of grid power to prevent forced plant outage and equipment damage. The engines of the two emergency ICE generators are Model Year 2022 Perkins 2806C-E18TTAG7, which is certified by the United States Environmental Protection Agency (U.S. EPA) as a Tier 2 engine (Family Name: NCPXL18.1NYS). Each engine will be equipped with a Miratech Model LTRV24-21-10-R1 Level 3 Plus Diesel Particulate Filter (DPF).

The emergency ICEs will emit nitrogen oxides (NO_x), sulfur oxides (SO_x), carbon monoxide (CO), volatile organic compounds (VOCs), respirable particulate matter (PM₁₀), and diesel particulate matter (DPM) from the combustion of diesel fuel. The emergency generators will not be located within 1,000 feet of a school or other sensitive receptor and are expected to comply with all applicable rules and regulations.

This PTC application package contains the information necessary for the South Coast Air Quality Management District (SCAQMD) to process and approve the application, including facility information (Section 1.0), equipment and process descriptions (Section 2.0), emission calculations (Section 3.0), and rule applicability and compliance determinations (Section 4.0). Application forms and emission calculations are provided in the appendices. AES is requesting Expedited Permit Processing for this application.

1.1 Facility Contact Information

The applicant contact information is shown below.

Table 1-1: Facility Contact Information

Applicant's Name:	AES Alamitos, LLC
Applicant Contact Information:	Charlene He Environmental Manager (562)493-7835 charlene.he@aes.com
Facility ID:	115394
Mailing Address:	690 N. Studebaker Rd. Long Beach, CA 90803
Equipment Location:	690 N. Studebaker Rd. Long Beach, CA 90803

1.2 Facility Location

The AES Alamitos facility is located at 690 North Studebaker Road in the City of Long Beach, California. The two emergency ICE generators are proposed to be located within the CCGT power block within the facility. An aerial view of the facility and surrounding areas is provided as Figure 1-1, and the proposed locations of the two emergency ICEs are provided in Figure 1-2. There are no schools within 1,000 feet of the proposed project location. The nearest school is Charles F Kettering Elementary School, which is located approximately 2,170 feet northwest of the west emergency ICE and 2,181 feet northwest of the east emergency ICE. The nearest commercial receptor is located 1,080 feet east of the west emergency ICE and 820 feet east of the east emergency ICE. The nearest residential receptor is located 1,257 feet west of the west emergency ICE and 1,500 feet west of the east emergency ICE. The distance between each ICE and the outer boundary of Charles F Kettering Elementary School is provided in Figures 1-3 and 1-4 to demonstrate that the engine exhaust stacks will not be within 1,000 feet of the outer boundary of the school.

1.3 Forms Included with Application

The forms included with this application are listed in Table 1-2. The forms are provided in Appendix A.

Table 1-2: SCAQMD Forms Accompanying This Application

Form	Title	Device
400-A	Application Form for Permit or Plan Approval	West Emergency Engine
400-A	Application Form for Permit or Plan Approval	East Emergency Engine
400-E-13a	Emergency Internal Combustion Engine	West Emergency Engine
400-E-13a	Emergency Internal Combustion Engine	East Emergency Engine
400-PS	Plot Plan and Stack Information	West Emergency Engine
400-PS	Plot Plan and Stack Information	East Emergency Engine
400-A	Application Form for Permit or Plan Approval (Title V Amendment)	Project
400-CEQA	California Environmental Quality Act (CEQA) Applicability	Project
500-A2	Title V Application Certification	Project
500-C1	Title V Compliance Status Report	Project
400-XPP	Expedited Permit Processing	Project

1.4 Application Preparation

This permit application was prepared by Collin Lundquist with peer review by James Adams of Yorke Engineering, LLC (Yorke). If there are technical questions regarding this application, please see the contact information in Table 1-3.

Table 1-3: Application Preparers

	Collin Lundquist	James Adams, CPP #M6901
Company:	Yorke Engineering, LLC	Yorke Engineering, LLC
Phone:	(949) 248-8490	(949) 248-8490
Cellular:	(949) 573-5122	(949) 573-7924
E-mail:	CLundquist@YorkeEngr.com	JAdams@YorkeEngr.com

Figure 1-1: Aerial View of the AES Facility and Surrounding Area



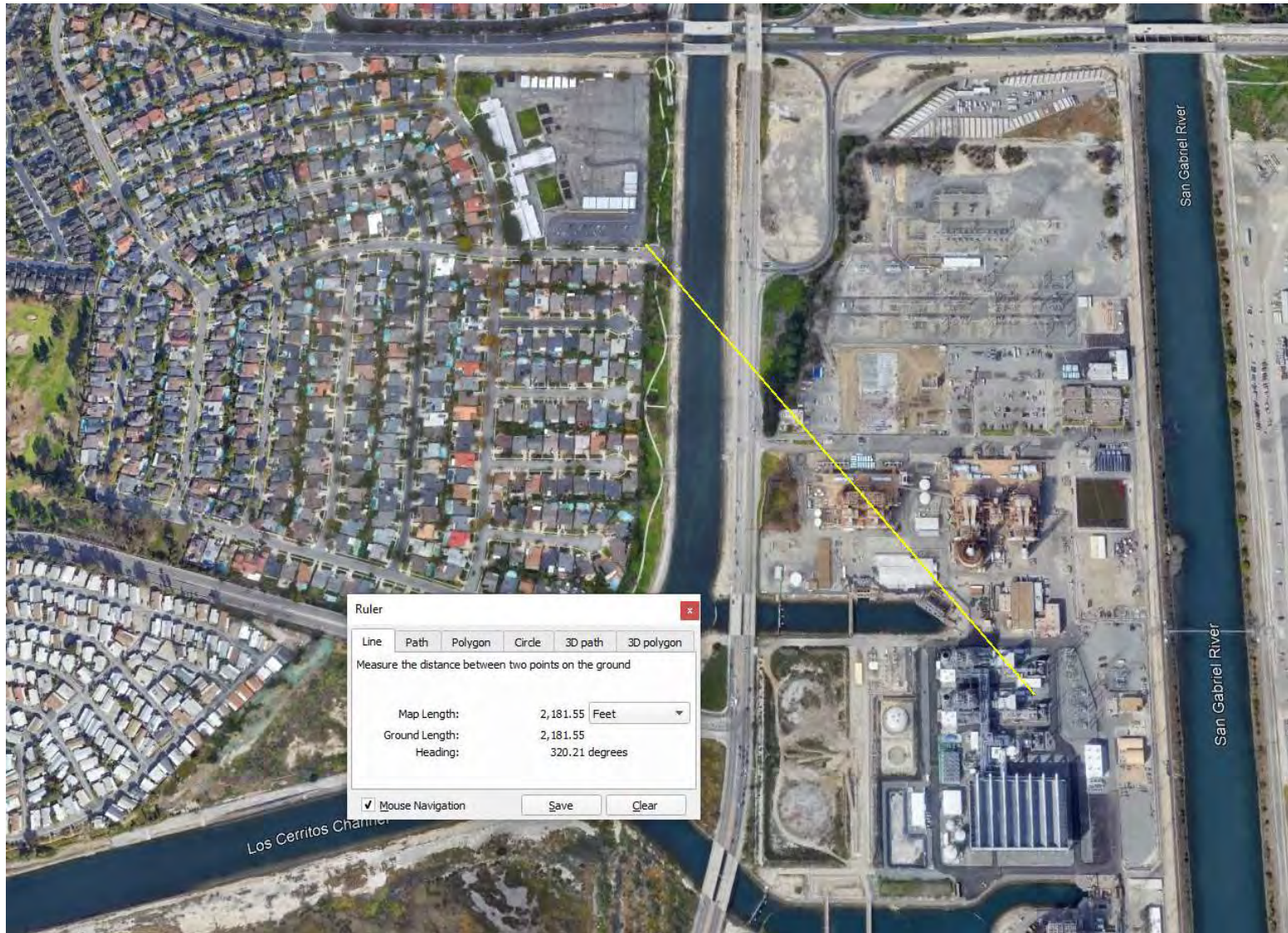
Figure 1-2: Proposed Locations of the Two Emergency ICEs



Figure 1-3: Distance Between the West Emergency ICE and the School Boundary



Figure 1-4: Distance Between the East Emergency ICE and the School Boundary



2.0 PROJECT DESCRIPTION

2.1 Equipment Description

AES Alamitos is requesting PTCs for two emergency ICE generators to provide power to the CCGT power block in the event of an emergency resulting in a loss of grid power. The engines are Model Year 2022 Perkins 2806C-E18TTAG7 and diesel-fired, with a maximum rating of 1,112 bhp. The engines are Tier 2 U.S. EPA certified and will be equipped with an add-on Diesel Particulate Filter (DPF) to further reduce PM₁₀ emissions. The DPF is a California Air Resources Board (CARB)-verified Miratech filter, model LTRV24-21-10-R1. Equipment and DPF specifications are provided in Table 2-1, Table 2-2, and Appendix B.

Table 2-1: Engine Specifications

Parameter	Value
Manufacturer	Perkins
Model	2806C-E18TTAG7
Engine Family Name	NCPXL18.1NYS
Engine Output	1112 BHP
Tier	2

Table 2-2: DPF Specifications

Parameter	Value
Manufacturer	Miratech
Model	LTRV24-21-10-R1
Control Efficiency	85%

2.2 Operating Schedule

The AES Alamitos power plant operates 24 hours per day, 7 days per week. AES will only operate the emergency engines for backup and emergency uses. In order to maintain readiness, the emergency engines may be run periodically for maintenance and testing. In accordance with the SCAQMD requirements, operation of the engines will be limited to 50 hours per year for maintenance and testing and a maximum of 200 hours per year total operation (which includes maintenance and testing). This operating schedule is summarized in Table 2-2. Table 2-2 also shows the hours per day and hours per month that the daily and 30-day average emissions are calculated from. The hours per day and hours per month are provided for calculation purposes only.

Table 2-3: Engine Operating Schedule

Period	Maintenance and Testing	Total Operation
Hours/Day (For Calculation Purposes Only)	1	N/A
Hours/Month (For Calculation Purposes Only)	4.2	N/A
Hours/Year	50	200

3.0 EMISSIONS

3.1 Criteria Pollutant Emissions

The emergency ICEs will combust low-sulfur diesel fuel; hence, emissions of VOCs, NO_x, CO, PM, and SO_x will be generated during its operation. The “Statement of Exhaust Emissions 2022 Perkins Diesel Fueled Generator” document provided in Appendix B was used for estimating emissions (100% load rather than the weighted emissions). The Tier 2 emission rate for Non-Methane Hydrocarbons (NMHC) + NO_x is assumed to consist of 5% VOCs and 95% NO_x.¹ SO_x emissions are estimated based on a fuel sulfur content of 15 parts per million by weight (ppmw). Additionally, each ICE will be equipped with a DPF, reducing PM emissions by 85%. Uncontrolled emission factors for the engine operating on low-sulfur fuel are shown in Table 3-1.

Table 3-1: Uncontrolled Emission Factors

Pollutant	Emission Factor (g/Hp-hr)
VOCs	0.20
NO _x	3.84
SO _x	0.005
CO	0.16
PM	0.02

Sample calculations are shown below for NO_x emissions for the emergency generators. There are no add-on emission control devices for NO_x, and thus, the uncontrolled and controlled emissions are the same. Emission calculations for the remainder of the pollutants are similar; only the emission factor changes.

Maximum Hourly Uncontrolled (MHU)

$$MHU = 1112 \text{ BHP} \times \frac{3.84 \text{ g NO}_x}{\text{BHP} - \text{hr}} \times \frac{1 \text{ lb}}{453.5 \text{ g}} = 9.42 \frac{\text{lbs NO}_x}{\text{hour}}$$

Maximum Hourly Controlled (MHC)

$$MHC = 1112 \text{ BHP} \times \frac{3.84 \text{ g NO}_x}{\text{BHP} - \text{hr}} \times \frac{1 \text{ lb}}{453.5 \text{ g}} = 9.42 \frac{\text{lbs NO}_x}{\text{hour}}$$

Maximum Daily Uncontrolled (MDU)

$$MDU = MHU * 1 \frac{\text{hr}}{\text{day}} = 9.42 \frac{\text{lbs NO}_x}{\text{day}}$$

Maximum Daily Controlled (MDC)

$$MDC = MHC * 1 \frac{\text{hr}}{\text{day}} = 9.42 \frac{\text{lbs NO}_x}{\text{day}}$$

¹ Carl Moyer Program Guidance, Table D-25.

Average Annual (AA)

$$AA = 9.42 \text{ lbs/hr} \times 50 \frac{\text{hrs}}{\text{yr}} = 470.75 \frac{\text{lbs NO}_x}{\text{year}}$$

30-Day Average (30DA)

$$30DA = \frac{9.42 \text{ lbs/hr} \times 4.2 \frac{\text{hrs}}{\text{mo}}}{30 \text{ day/mo}} = 1.32 \frac{\text{lbs NO}_x}{\text{day}}$$

Tables 3-2 and 3-3 summarize criteria pollutant emissions from the operation of each individual emergency engine and both engines, respectively. Detailed emission calculations are provided in Appendix C.

Table 3-2: Criteria Pollutant Emissions for Each Emergency ICE

Criteria Pollutant	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
VOCs	0.49	0.49	0.49	0.49	0.49	0.49	24.52	0.07
NO _x	9.42	9.42	9.42	9.42	9.42	9.42	470.75	1.32
SO _x	0.01	0.01	0.01	0.01	0.01	0.01	0.60	0.002
CO	0.39	0.39	0.39	0.39	0.39	0.39	19.61	0.05
PM ₁₀	0.05	0.007	0.05	0.007	0.05	0.007	0.368	0.001

Table 3-3: Combined Criteria Pollutant Emissions for Both Emergency ICEs

Criteria Pollutant	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
VOCs	0.98	0.98	0.98	0.98	0.98	0.98	49.04	0.14
NO _x	18.84	18.84	18.84	18.84	18.84	18.84	941.5	2.64
SO _x	0.02	0.02	0.02	0.02	0.02	0.02	1.20	0.004
CO	0.78	.078	0.78	0.78	0.78	0.78	39.22	0.10
PM ₁₀	0.10	0.014	0.10	0.014	0.10	0.014	0.736	0.002

3.2 Toxic Air Contaminant (TAC) Emissions

DPM will be emitted during the operation of the emergency engine. The DPM emission factor is based on Tier 2 engine standards with an add-on DPF to further reduce emissions. The assumed control efficiency of the DPF is 85%. Tables 3-4 and 3-5 summarizes the DPM emission factor and corresponding emissions for each individual emergency engine and the combined emissions of both engines. Emission calculations are provided in Appendix C.

Table 3-4: TAC Emission Factor and Emissions for Each Emergency ICE

Pollutant	CAS Number	Uncontrolled Emission Factor (g/Hp-hr)	MHC (lb/hr)	MAC (lb/yr)
Diesel PM	9901	0.02	0.007	0.37

Table 3-5: TAC Emission Factor and Combined Emissions for Both Emergency ICEs

Pollutant	CAS Number	Uncontrolled Emission Factor (g/Hp-hr)	MHC (lb/hr)	MAC (lb/yr)
Diesel PM	9901	0.02	0.014	0.74

3.3 Greenhouse Gas Emissions

Greenhouse gases (GHGs) are emitted during the operation of the emergency engines. GHG emissions are estimated using diesel GHG emission factors from the Code of Federal Regulations (CFR) Title 40, Section 98, Subpart C, Tables C-1 and C-2 and corresponding global warming potentials (GWPs) from 40 CFR Part 98 Subpart A, Table A-2. Emission factors are listed in kilograms per million British thermal units (kg/MMBtu).

Emissions are calculated using the higher heating value (HHV) of diesel of 19,300 Btu per pound or 0.138 MMBtu per gallon. Fuel usage is based on the engine's maximum fuel flow at 100% load of 54.3 gallons per hour, as stated in the manufacturer's specification. Annual fuel usage assumes an average usage of 50 hours per year, resulting in 2,715 gallons per year.

A sample calculation for carbon dioxide (CO₂) is shown below.

$$E_{CO_2} \left(\frac{kg}{yr} \right) = 2,715 \frac{gal}{yr} \times 0.138 \frac{MMBtu}{gal} \times \frac{73.96 kg CO_2}{MMBtu} = 27,710.59 kg \frac{CO_2}{yr}$$

The emissions are converted into CO₂ equivalents (CO₂e) using the GWPs for each gas. Table 3-6 summarizes the GHG emission factors, GWPs, and emissions of GHGs from each engine. Table 3-7 summarizes the GHG emission factors, GWPs, and emissions of GHGs from both engines.

Table 3-6: GHG Emissions for Each Emergency ICE

GHG	Emission Factor (kg/MMBtu)	Total Emissions (TPY)	Global Warming Potential (unitless)	Emissions of CO ₂ e (TPY)
CO ₂	73.96	30.5	1	30.5
CH ₄	0.003	0.0012	25	0.03
N ₂ O	0.0006	0.0002	298	0.07
Total	—	—	—	30.65

Table 3-7: Combined GHG Emissions for Two Emergency ICEs

GHG	Emission Factor (kg/MMBtu)	Total Emissions (TPY)	Global Warming Potential (unitless)	Emissions of CO ₂ e (TPY)
CO ₂	73.96	61.0	1	61.0
CH ₄	0.003	0.0024	25	0.06
N ₂ O	0.0006	0.0004	298	0.14
Total	—	—	—	61.30

4.0 RULE COMPLIANCE EVALUATION

4.1 Regulation II – Permits

4.1.1 Rule 212, Standards for Approving Permits and Issuing Public Notice

Rule 212(c) requires public notice for:

- (c)(1). A project requesting installation of a new source or modification of an existing source, if the source is located within 1,000 feet of the outer boundary of a school; or
- (c)(2). A project resulting in a new or modified facility with on-site emission increases exceeding any of the daily maximums from Rule 212(g); or
- (c)(3). A project requesting installation of a new source or modification of an existing source, if the emission increases result in exposure to Maximum Individual Cancer Risk (MICR) greater than or equal to the applicable thresholds in paragraph (c)(3)(A), or substances that pose a potential risk of nuisance.

As described in Section 1.2 and shown in Figures 1-3 and 1-4, the proposed project locations are not located within 1,000 feet of the outer boundary of a school. Rule 212(c)(1) does not apply.

Rule 212(g) lists daily maximum emissions increases for criteria pollutants. The project emissions changes from Table 3-3 are compared to the Rule 212(g) thresholds in Table 4-1.

Table 4-1: Rule 212(g) Threshold Comparison

Pollutant	Daily Maximum (lb/day)	Project Changes (lb/day)
NO _x	40	18.84
CO	220	0.78
VOC	30	0.98
SO _x	60	0.02
PM ₁₀	30	0.014

As shown in Appendix D, the project passes a Rule 1401 Tier 2 Screening Risk Assessment. The operating schedule has been set to 1 hr/day, 1 day/wk, and 50 wk/yr to calculate 50 hrs/yr for maintenance and testing purposes. Therefore, this project would not result in an increase in MICR greater than or equal to the applicable thresholds in paragraph (c)(3)(A).

The project will not require Rule 212 public notice.

4.2 Regulation III – Fees

4.2.1 Rule 301, Permit Fees

Application fees are summarized in Table 4-2.

Table 4-2: Application Fees

Equipment/Item	Rule 301 Table IA/IB Description	Schedule	Base Fee
Emergency IC Engine	IC Engine, Emergency	B, FY 2019-20	\$3,859.15
Emergency IC Engine	IC Engine, Emergency	B, FY 2019-20	\$1,929.58
RECLAIM & Title V Permit	RECLAIM & Title V Facility Permit Amendment/Revision Fee	301(m)(4)	\$2,853.99
Expedited Permit Processing (50% of Base Permit Fee)			\$2,894.37
Total			\$11,537.09

4.3 Regulation IV – Prohibitions

4.3.1 Rule 401, Visible Emissions

The emergency engines are Tier 2 engines that will be fired on low-sulfur diesel fuel. No visible emissions are expected as a result of operation of the emergency engines.

4.3.2 Rule 402, Nuisance

The emergency engines are Tier 2 engines that will be fired on low-sulfur diesel fuel. Nuisance is not expected as a result of operating the emergency engines.

4.3.3 Rule 404, Particulate Matter Concentration

The emergency engines meet Tier 2 engine standards and will be equipped with an add-on DPF. Operation of the engines is not expected to result in PM emissions greater than the applicable concentration listed in Table 404(a). Therefore, compliance with this rule is expected.

4.3.4 Rule 431.2, Sulfur Content of Liquid Fuels

The purpose of this rule is to reduce SO_x emissions from the burning of liquid fuels in stationary equipment requiring a permit to operate. Since the engines will burn low-sulfur diesel, compliance with Rule 431.2 is expected.

4.4 Regulation IX – Standards of Performance for New Stationary Sources

Regulation IX, New Source Performance Standards (NSPS), was adopted by reference to the appropriate section of the CFR. These regulations are periodically updated to reflect actions published in the Federal Register (FR) by the U.S. EPA.

4.4.1 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression-Ignition Internal Combustion Engines

The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary Compression-Ignition (CI) ICEs. The subpart establishes emission standards for CI ICEs constructed after 2007.

Owners and operators of 2007 model year and later emergency stationary CI ICEs with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new non-road CI engines for the same model year and maximum engine power in 40 CFR Part 89.112 and 40 CFR Part 89.113 for all pollutants beginning in model year 2007. Part 89 specifies Tier 2 emission standards for engines constructed after 2006. The Tier 2 engine standards are shown in Table 4-3.

Table 4-3: Tier 2 Emission Standards

Pollutant	Emission Standard (g/kW-hr)	Emission Standard (g/hp-hr)
NO _x + NMHC	6.4	4.8
CO	3.5	2.6
PM	0.2	0.15

The proposed emergency engines will be Tier 2 engines; thus, compliance is expected. There are no other federal NSPS applicable to the emergency engines.

4.5 Regulation X – National Emission Standards for Hazardous Air Pollutants

Regulation X, National Emission Standards for Hazardous Air Pollutants (NESHAP), was adopted by reference to Part 61 of the CFR. These regulations are periodically updated to reflect actions published in the FR by the U.S. EPA. There are no Part 61 requirements applicable to the emergency engines.

4.5.1 40 CFR Part 63, Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

New stationary engines located at an area source of hazardous air pollutant (HAP) emissions comply with Subpart ZZZZ by complying with the applicable requirements of Subpart IIII or Subpart JJJJ. No further requirements apply for such engines under this part.

4.6 Regulation XI – Source-Specific Standards

4.6.1 Rule 1110.2, Emissions from Gaseous and Liquid-Fueled Engines

Rule 1110.2 applies to stationary and portable engines rated over 50 bhp and imposes requirements for NO_x, VOCs, and CO, with an exemption from the requirements for emergency engines operated no more than 200 hours per year.

“Emergency standby engines, engines used for fire-fighting and flood control, and any other emergency engines approved by the Executive Officer, which have permit conditions that limit operation to 200 hours or less per year as determined by an elapsed operating time meter, and agricultural emergency standby engines that are exempt from a District permit and operate 200 hours or less per year as determined by an elapsed operating time meter.”

Therefore, the engines are exempt from Rule 1110.2.

4.7 Regulation XIII – New Source Review; Rule 1303, Requirements

The Best Available Control Technology (BACT), modeling, and offset requirements of Regulation XIII are addressed in this section.

4.7.1 Best Available Control Technology

Based on a review of SCAQMD BACT Part B Determinations, BACT for a CI diesel-fueled emergency engine is a certified Tier 2 engine with a CARB verified DPF to reduce the maximum daily potential to emit (PTE) of DPM to less than 1 lb per day. The proposed emergency engines meet the required emission standards; therefore, BACT is satisfied.

4.7.2 Modeling and Offsets

Rule 1304 exempts emergency equipment from modeling and offsets provided the source does not operate more than 200 hours per year as evidenced by a non-resettable engine hour meter or equivalent method. AES is proposing a permit condition limiting operations of each engine to no more than 200 hours per year, and each engine will be equipped with a non-resettable hour meter. Therefore, modeling and offsets are not required for this application.

4.8 Regulation XIV – Toxics and Other Non-Criteria Pollutants

4.8.1 Rule 1401, New Source Review for Air Toxics

This rule imposes limits for MICR, cancer burden, and non-cancer Acute and Chronic Hazard Indices (HIA and HIC, respectively) from new permit units, relocations, or modifications to existing permit units which emit the TACs listed in Table I of the rule. The rule establishes allowable risks for permit units requiring new permits pursuant to Rule 201 or 203.

Emergency ICEs that are exempted under Rule 1304 are also exempted from the requirements of this rule.

4.8.2 Rule 1470, Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

This rule applies to any person who owns or operates a stationary CI engine in the SCAQMD with a rated bhp greater than 50, except as provided in subdivision (h). The rule requires the following of new emergency engines that are greater than 750 bhp and are located more than 500 feet from a school or sensitive receptor:

- Use of CARB low-sulfur diesel fuel;
- New stationary emergency standby diesel-fueled engines (>50 bhp) shall not operate more than 50 hours per year for maintenance and testing;
- Use of a certified CI engine that emits DPM at a rate less than or equal to 0.15 g/bhp-hr;
- NMHC + NO_x emissions not to exceed 4.8 g/bhp-hr; and
- CO emissions not to exceed 2.6 g/bhp-hr.

AES will use CARB low-sulfur diesel fuel. AES will accept permit limits enforcing the maintenance and testing limit of 50 hours per year. The proposed engines will comply

with the applicable emission standards for Rule 1470. Therefore, compliance with this rule is expected.

4.8.3 Rule 1472, Requirements for Facilities with Multiple Stationary Emergency Standby Diesel Fueled Internal Combustion Engines

Rule 1472 applies to facilities with three or more stationary diesel emergency ICEs that are above 50 bhp, regulating specific operation and recordkeeping criteria. This rule does not apply to AES Alamitos since the facility does not currently operate any stationary emergency standby diesel-fueled ICEs, and the project only proposes installation of two engines.

4.9 Regulation XX – Regional Clean Air Incentives Market

The Regional Clean Air Incentives Market (RECLAIM) is a market-based incentive program designed to allow facilities flexibility in achieving emission reduction requirements for NO_x and SO_x under the Air Quality Management Plan using methods which include, but are not limited to, add-on controls, equipment modifications, reformulated products, operational changes, shutdowns, and the purchase of excess emission reductions.

Rule 2005 establishes the New Source Review requirements for RECLAIM facilities. Rule 2005 requires that a new or modified source meet BACT, prohibits a new or modified source from causing a violation or making significantly worse an existing violation of the State or national ambient air quality standard at any receptor location in the District for NO₂, and requires that the facility hold sufficient RECLAIM Trading Credits (RTCs) to offset the total facility emissions for the first year of operation at a 1-to-1 ratio.

4.9.1 Best Available Control Technology (BACT)

Based on a review of SCAQMD BACT Part B Determinations, BACT for a CI diesel-fueled emergency engine is a certified Tier 2 engine with a CARB verified DPF to reduce maximum daily PTE of DPM to less than 1 lb per day. The proposed emergency engine meets the required emission standards; therefore, BACT is satisfied.

4.9.2 Modeling

Rule 2005 exempts emergency equipment from modeling provided the source does not operate more than 200 hours per year as evidenced by a non-resettable engine hour meter or equivalent method. AES is proposing a permit condition limiting operations of each engine to no more than 200 hours per year, and each engine will be equipped with a non-resettable hour meter. Therefore, modeling is not required for this application.

4.9.3 Offsets

The proposed project will result in a net increase in NO_x emissions on a monthly and annual basis. The facility is expected to secure sufficient RTCs to offset the total facility emissions for the first year of engine operations at a 1-to-1 ratio.

AES proposes to calculate RECLAIM NO_x emissions using an emission factor of 173.48 pounds per 1,000 gallons.²

² $9.42 \frac{\text{lbs}}{\text{hr}} / \left(54.3 \frac{\text{gal}}{\text{hr}} / 1000 \right) = 9.42 \frac{\text{lbs}}{\text{hr}} / 0.0543 \frac{\text{gal}}{\text{hr}} = 173.48 \text{ lbs per } 1000 \text{ gallons}$

4.10 Regulation XXX – Title V Permits

The AES Alamitos facility is a Title V major source facility. An application to modify the Title V permit is included as part of this application.

4.11 Airborne Toxic Control Measure for Stationary Compression-Ignition Engines

The purpose of this Airborne Toxic Control Measure (ATCM) is to reduce DPM and criteria pollutant emissions from stationary diesel-fueled CI engines (California Code of Regulations, Title 17, Section 93115). The ATCM requires the use of CARB low-sulfur diesel fuel or other low-sulfur fuels [Section 93115.5(a)]. The ATCM requires that a new emergency engine have the following operating restrictions [Section 93115.6(a)(2)]:

“No owner or operator shall operate any new stationary emergency standby diesel-fueled CI engine (>50 bhp) in response to the notification of an impending rotating outage, unless all the following criteria are met:

(A) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and

(B) the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a specified time; and

(C) the engine is located in a specific location that is subject to the rotating outage; and

(D) the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and

(F) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.”

The ATCM establishes the emission standards identified in Table 4-4 for new CI engines with rated power output of equal to or greater than 750 hp [Section 93115.6(a)(3)].

Table 4-4: ATCM Emission Standards

Pollutant	Emission Standard (g/kW-hr)	Emission Standard (g/Hp-hr)
NO _x + NMHC	6.4	4.8
CO	3.5	2.6
PM	0.2	0.15

The District may allow in-use stationary emergency standby diesel-fueled CI engines (> 50 bhp) to operate up to 50 hours per year for maintenance and testing purposes if the DPM emission rate is less than or equal to 0.15 g/bhp-hr [Section 93115.6(b)(3)(A)(2)(b)].

A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation [Section 93115.10(d)].

The proposed emergency IC engines will be operated using CARB low-sulfur diesel fuel. The operating restrictions for emergency use and maintenance and testing will be enforceable via permit conditions. The engines are certified Tier 2 engines that are guaranteed to meet the ATCM emission limits. The requirement for an engine hour meter and compliance with the monthly recordkeeping requirements will also be enforceable through permit conditions. The engine records will be maintained at the facility and available for review upon request. Therefore, compliance with the ATCM of the two proposed emergency IC engines is expected.

APPENDIX A – SCAQMD APPLICATION FORMS

Form	Title	Device
400-A	Application Form for Permit or Plan Approval	West Emergency Engine
400-A	Application Form for Permit or Plan Approval	East Emergency Engine
400-E-13a	Emergency Internal Combustion Engine	West Emergency Engine
400-E-13a	Emergency Internal Combustion Engine	East Emergency Engine
400-PS	Plot Plan and Stack Information	West Emergency Engine
400-PS	Plot Plan and Stack Information	East Emergency Engine
400-A	Application Form for Permit or Plan Approval (Title V Amendment)	Project
400-CEQA	California Environmental Quality Act (CEQA) Applicability	Project
500-A2	Title V Application Certification	Project
500-C1	Title V Compliance Status Report	Project
400-XPP	Expedited Permit Processing	Project

Please note: each exhaust stack will have flapper cap. Flapper caps are not considered capped stacks in AERMOD. We have checked “No” for the question “Rain cap Present?” on the 400-PS forms.



South Coast Air Quality Management District

Form 400-A**Application Form for Permit or Plan Approval**

List only one piece of equipment or process per form.

South Coast
AQMD

Mail To:

SCAQMD

P.O. Box 4944

Diamond Bar, CA 91765-0944

Tel: (909) 396-3385

www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit): AES Alamitos, LLC	2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 115394
3. Owner's Business Name (If different from Business Name of Operator):	

Section B - Equipment Location Address

4. Equipment Location Is: ☒ Fixed Location ☐ Various Location
(For equipment operated at various locations, provide address of initial site.)

690 N. Studebaker Rd.
Street Address

Long Beach, CA 90803
City Zip

Charlene He Environmental Manager
Contact Name Title

(562) 493-7835
Phone #

Ext. Fax #

E-Mail: charlene.he@aes.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☒ Check here if same as equipment location address

690 N. Studebaker Rd.
Address

Long Beach, CA 90803
City State Zip

Charlene He Environmental Manager
Contact Name Title

(562) 493-7835
Phone #

Ext. Fax #

E-Mail: charlene.he@aes.com

Section D - Application Type

6. The Facility Is: ☐ Not In RECLAIM or Title V ☐ In RECLAIM ☐ In Title V ☒ In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:

- ☒ New Construction (Permit to Construct)
- ☐ Equipment On-Site But Not Constructed or Operational
- ☐ Equipment Operating Without A Permit *
- ☐ Compliance Plan
- ☐ Registration/Certification
- ☐ Streamlined Standard Permit

7b. Facility Permits:

- ☐ Title V Application or Amendment (Refer to Title V Matrix)
- ☐ RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:

- ☐ Administrative Change
- ☐ Alteration/Modification
- ☐ Alteration/Modification without Prior Approval *
- ☐ Change of Condition
- ☐ Change of Condition without Prior Approval *
- ☐ Change of Location
- ☐ Change of Location without Prior Approval *
- ☐ Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 01/01/2023	8b. Estimated End Date of Construction (mm/dd/yyyy): 04/30/2023	8c. Estimated Start Date of Operation (mm/dd/yyyy): 05/01/2023
9. Description of Equipment or Reason for Compliance Plan (list applicable rule): Permit Application for Two Emergency IC Engines (first one)	10. For identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process) 1	
11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are \$500,000 or less OR a not-for-profit training center) ☒ No ☐ Yes	12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? If Yes, provide NOV/NC#: ☒ No ☐ Yes	

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location? Generation, Electric Power	14. What is your business primary NAICS Code? (North American Industrial Classification System) 221112
15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ☐ No ☒ Yes	16. Are there any schools (K-12) within 1000 feet of the facility property line? ☐ No ☒ Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official:	18. Title of Responsible Official: V.P., AES Southland Energy	19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ☐ No ☒ Yes
20. Print Name: Weikko Wirta	21. Date: 04/18/2022	22. Do you claim confidentiality of data? (If Yes, see instructions.) ☒ No ☐ Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED \$	PAYMENT TRACKING #	VALIDATION
DATE	APP REG	DATE	APP REG	CLASS I III	BASIC CONTROL
EQUIPMENT CATEGORY CODE			TEAM	ENGINEER	REASON/ACTION TAKEN



South Coast Air Quality Management District

Form 400-A**Application Form for Permit or Plan Approval**

List only one piece of equipment or process per form.

Mail To:

SCAQMD

P.O. Box 4944

Diamond Bar, CA 91765-0944

Tel: (909) 396-3385

www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit): AES Alamitos, LLC	2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 115394
3. Owner's Business Name (If different from Business Name of Operator):	

Section B - Equipment Location Address

4. Equipment Location Is: ☒ Fixed Location ☐ Various Location
(For equipment operated at various locations, provide address of initial site.)

690 N. Studebaker Rd.
Street Address

Long Beach, CA 90803
City Zip

Charlene He Environmental Manager
Contact Name Title

(562) 493-7835
Phone #

Ext. Fax #

E-Mail: charlene.he@aes.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☒ Check here if same as equipment location address

690 N. Studebaker Rd.
Address

Long Beach, CA 90803
City State Zip

Charlene He Environmental Manager
Contact Name Title

(562) 493-7835
Phone #

Ext. Fax #

E-Mail: charlene.he@aes.com

Section D - Application Type

6. The Facility Is: ☐ Not In RECLAIM or Title V ☐ In RECLAIM ☐ In Title V ☒ In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:

- ☒ New Construction (Permit to Construct)
- ☐ Equipment On-Site But Not Constructed or Operational
- ☐ Equipment Operating Without A Permit *
- ☐ Compliance Plan
- ☐ Registration/Certification
- ☐ Streamlined Standard Permit

7b. Facility Permits:

- ☐ Title V Application or Amendment (Refer to Title V Matrix)
- ☐ RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:

- ☐ Administrative Change
- ☐ Alteration/Modification
- ☐ Alteration/Modification without Prior Approval *
- ☐ Change of Condition
- ☐ Change of Condition without Prior Approval *
- ☐ Change of Location
- ☐ Change of Location without Prior Approval *
- ☐ Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application

If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 01/01/2023	8b. Estimated End Date of Construction (mm/dd/yyyy): 04/30/2023	8c. Estimated Start Date of Operation (mm/dd/yyyy): 05/01/2023
9. Description of Equipment or Reason for Compliance Plan (list applicable rule): Permit Application for Two Emergency IC Engines (second one)		10. For identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process) 1
11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are \$500,000 or less OR a not-for-profit training center) ☒ No ☐ Yes		12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? If Yes, provide NOV/NC#: ☒ No ☐ Yes

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location? Generation, Electric Power	14. What is your business primary NAICS Code? (North American Industrial Classification System) 221112
15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ☐ No ☒ Yes	16. Are there any schools (K-12) within 1000 feet of the facility property line? ☐ No ☒ Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: 	18. Title of Responsible Official: V.P., AES Southland Energy	19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ☐ No ☒ Yes
20. Print Name: Veiikko Wirta	21. Date: 04/18/2022	22. Do you claim confidentiality of data? (If Yes, see instructions.) ☒ No ☐ Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed					
AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED \$	PAYMENT TRACKING #	VALIDATION
DATE	APP. REG.	DATE	APP. REG.	CLASS. I III	BASIC CONTROL
EQUIPMENT CATEGORY CODE		TEAM	ENGINEER	REASON/ACTION TAKEN	



South Coast Air Quality Management District

FORM 400-E-13a**Emergency Internal Combustion Engine**

This form must be accompanied by a completed Application for a Permit to Construct/Operate -Form 400A

Mail Application To:

SCAQMD

P.O. Box 4944

Diamond Bar, CA 91765

Tel: (909) 396-3385

www.aqmd.gov

Permit to be issued to (Business name of operator to appear on permit):

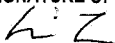
AES Alamos, LLC

Street location where the equipment will be operated (for equipment which will be moved to various location in SCAQMD's jurisdiction, please list the initial location site):

690 N. Studebaker Rd., Long Beach, CA 90803 | West Engine

Section A: Equipment Information

Internal Combustion Engine	Manufacturer:	Perkins	Model No.:	2806C-E18TTAG7	Serial No.:
	EPA Family No.:	NCPXL18.1NYS		Date of Manufacture:	(mm/dd/yyyy) For an ICE manufactured after 7/18/94, please provide manufacturer's specification.
	Manufacturer Maximum Rating:	1,112 BHP @ 1,800 RPM		Date of Installation:	(mm/dd/yyyy)
ICE Emergency Function	☒ Electrical Generator ☐ Fire Pump ☐ Flood Control ☐ Pump Driver ☐ Compressor ☐ Water Pump ☐ Other _____				
Type	☒ Fixed site ☐ Portable How Is This Type of Equipment Used? (Check All That Apply) ☒ Within Facility ☐ Off- Site ☐ Rental				
Fuel	☒ Diesel Oil ☐ LPG ☐ Natural Gas ☐ Other: _____				
Cycle Type	☐ Two Cycle ☒ Four Cycle				
Combustion Type	☒ Lean Burn ☐ Rich Burn				
Engine Size	18.1 liters				
No. of Cylinders	☐ Four ☒ Six ☐ Eight ☐ Ten ☐ Twelve ☐ Sixteen ☐ Other _____				
Aspiration Type	☐ Naturally Aspirated ☐ Turbocharged ☒ Turbocharged/Aftercooled				
Air Pollution Control	Check all that apply: ☐ Selective Catalytic Reduction (SCR)* ☐ Catalytic Converter ☐ Selective Non-catalytic Reduction (SNCR)* ☐ Air/Fuel Ratio Controller ☐ Non-selective Catalytic Reduction (NSCR) ☐ No Controls ☒ Diesel Particulate Filter (DPF) ☐ Other (specify) _____ Manufacturer: Miratech Model No. LTRV24-21-10-R1 If already permitted, indicate Permit No. _____ Device No. _____ (RECLAIM and/or Title V Permits) * Separate application is required.				
	Additional Information for Diesel Particulate Filter (DPF) Filter Efficiency: 85 % CARB Certified? ☒ Yes ☐ No If Yes, provide a copy of the CARB Verification Certificate, or provide the Verification No. See Attached Installing a backpressure relief system? ☐ Yes ☐ No				

Section B: Operation Information																	
Fuel Consumption	Maximum Load: <u>54.3</u> gal/hr OR _____ cu ft/hr	Average Load: _____ gal/hr OR _____ cu ft/hr															
Operating Schedule	Normal: _____ hours/day _____ days/week _____ weeks/year																
	Maximum: _____ hours/day _____ days/week _____ weeks/year																
	Testing & Maintenance: <u>50</u> hours/year																
Section C: Engine Data																	
Is the engine EPA certified? ☒ Yes Provide a copy of EPA's Engine Certification. Choose one: ☐ Tier I ☒ Tier II ☐ Tier III ☐ Tier IV (Interim) ☐ Tier IV ☐ No Provide a copy of the Manufacturer's Emissions Data. If manufacturer's emissions data is not available, provide available emissions data below. Provide supporting documents. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 20%;">Carbon Monoxide (grams/bhp-hr)</th> <th style="width: 20%;">Hydrocarbons (grams/bhp-hr)</th> <th style="width: 20%;">Oxides of Nitrogen (grams/bhp-hr)</th> <th style="width: 20%;">Hydrocarbons + Oxides of Nitrogen (grams/bhp-hr)</th> <th style="width: 20%;">Particulate Matter (grams/bhp-hr)</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Carbon Monoxide (grams/bhp-hr)	Hydrocarbons (grams/bhp-hr)	Oxides of Nitrogen (grams/bhp-hr)	Hydrocarbons + Oxides of Nitrogen (grams/bhp-hr)	Particulate Matter (grams/bhp-hr)										
Carbon Monoxide (grams/bhp-hr)	Hydrocarbons (grams/bhp-hr)	Oxides of Nitrogen (grams/bhp-hr)	Hydrocarbons + Oxides of Nitrogen (grams/bhp-hr)	Particulate Matter (grams/bhp-hr)													
Section D: Sensitive Receptors																	
A. Distance from <u>engine stack to the fence line</u> of the nearest sensitive receptor (i.e., long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools (K-12), playgrounds, child care centers, and athletic facilities): <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 33%;">Type of Facility</th> <th style="width: 33%;">Name of Facility</th> <th style="width: 34%;">Distance (feet)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Residential</td> <td style="text-align: center;">University Park Estates</td> <td style="text-align: center;">1257</td> </tr> <tr> <td style="text-align: center;">Elementary School</td> <td style="text-align: center;">Charles F Kettering Elementary School</td> <td style="text-align: center;">2170</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </tbody> </table>			Type of Facility	Name of Facility	Distance (feet)	Residential	University Park Estates	1257	Elementary School	Charles F Kettering Elementary School	2170						
Type of Facility	Name of Facility	Distance (feet)															
Residential	University Park Estates	1257															
Elementary School	Charles F Kettering Elementary School	2170															
Section E: Applicant Certification Statement																	
I hereby certify that all information contained herein and submitted with this application is true and correct.																	
SIGNATURE OF PREPARER: 	TITLE OF PREPARER: Engineer																
CONTACT PERSON FOR INFORMATION ON THIS EQUIPMENT : Charlene He	CONTACT PERSON'S TELEPHONE NUMBER (562) 493-7835	DATE SIGNED: 4/20/2022															
THIS IS A PUBLIC DOCUMENT																	
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RULE EVALUATION

The internal combustion engine may be subject to the following rules:

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Rule 431.2	Sulfur Content of Liquid Fuels Liquid fuels – sulfur content of 500 ppm by weight or less. Diesel fuel – sulfur content of 0.015% by weight or less.
Reg XIII	New Source Review
Rule 1401	New Source Review of Toxic Air Contaminants
Rule 1401.1	Requirements for New and Relocated Facilities Near Schools
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Rule 1472	Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines
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40 CFR 60 Subpart JJJJ	Standards of Performance for New Stationary Sources
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SAMPLE CONDITIONS FOR EMERGENCY INTERNAL COMBUSTION ENGINES (GENERATORS)

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITIONS AT ALL TIMES.
3. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF SCAQMD RULE 431.2, SCAQMD RULE 1470, 40CFR PART 60 SUBPART IIII AND 40 CFR PART 63 SUBPART ZZZZ, OR THE OPERATOR SHALL NOT USE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPM BY WEIGHT AS SUPPLIED BY THE SUPPLIER.
4. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING.
5. THE OPERATION OF ENGINE BEYOND 50 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
6. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
7. ON OR BEFORE JANUARY 15TH OF EACH YEAR THE OPERATOR SHALL RECORD IN THE ENGINE OPERATING LOG:
 - A. THE TOTAL HOURS OF ENGINE OPERATION FOR THE PREVIOUS CALENDAR YEAR, AND
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ENGINE OPERATION LOG(S) SHALL BE RETAINED ON SITE FOR A MINIMUM OF FIVE CALENDAR YEARS AND SHALL BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR REPRESENTATIVE UPON REQUEST.

8. THE OPERATOR SHALL KEEP A LOG OF ENGINE OPERATIONS DOCUMENTING THE TOTAL TIME THE ENGINE IS OPERATED EACH MONTH AND THE SPECIFIC REASON FOR OPERATION AS:
 - A. EMERGENCY USE
 - A. MAINTENANCE AND TESTING
 - C. OTHER (BE SPECIFIC)

IN ADDITION, FOR EACH TIME THE ENGINE IS MANUALLY STARTED, THE LOG SHALL INCLUDE: THE DATE OF ENGINE OPERATION, THE START AND STOP TIME OF THE ENGINE, THE SPECIFIC REASON FOR OPERATION, AND THE TOTALIZING HOUR METER READING (IN HOURS AND TENTHS OF HOURS) AT THE BEGINNING AND THE END OF THE OPERATION.

9. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.

10. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING TO COMPLY WITH REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). ANYTHING IN EXCESS OF 50 HOURS SHALL BE ALLOWED ONLY IN THE EVENT OF AN EMERGENCY FIRE FIGHTING OPERATION.

For Fire pumps:

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For Various Locations Equipment:

12. UPON THE FIFTH DAY AFTER PLACEMENT OF THIS EQUIPMENT INTO OPERATION AT A NEW SITE, THE DISTRICT SHALL BE NOTIFIED VIA TELEPHONE AT 877-810-6995 OF THE EXACT NATURE OF THE PROJECT AS FOLLOWS:
 - A. THE PERMIT NUMBER OF THE PORTABLE EQUIPMENT.
 - B. THE NAME AND TELEPHONE NUMBER OF A CONTACT PERSON.
 - C. THE LOCATION WHERE THE PORTABLE EQUIPMENT WILL BE OPERATED.
 - D. THE ESTIMATED TIME THE PORTABLE EQUIPMENT WILL BE LOCATED AT THE SITE.
 - E. DESCRIPTION OF THE PROJECT.
 - F. IF LESS THAN 1/4 MILE, THE DISTANCE TO THE NEAREST SENSITIVE RECEPTOR. SENSITIVE RECEPTORS ARE DEFINED AS LONG-TERM HEALTH CARE FACILITIES, REHABILITATION CENTERS, CONVALESCENT CENTERS, RETIREMENT HOMES, RESIDENCES, SCHOOLS, PLAYGROUNDS, CHILD CARE CENTERS, AND ATHLETIC FACILITIES.
13. THIS ENGINE AND ITS REPLACEMENT UNIT INTENDED TO PERFORM THE SAME OR SIMILAR FUNCTION, SHALL NOT RESIDE AT ANY ONE LOCATION FOR MORE THAN 12 CONSECUTIVE MONTHS. THE PERIOD DURING WHICH THE ENGINE AND ITS REPLACEMENT IS MAINTAINED AT A STORAGE FACILITY SHALL BE EXCLUDED FROM RESIDENCY TIME DETERMINATION.
14. THIS ENGINE SHALL NOT BE REMOVED FROM ONE LOCATION FOR A PERIOD OF TIME, AND THEN IT OR ITS EQUIVALENT ENGINE RETURNED TO THE SAME LOCATION, IN ORDER TO CIRCUMVENT THE PORTABLE ENGINE RESIDENCE TIME REQUIREMENTS.
15. IN ADDITION TO MAINTENANCE AND TESTING OF THIS ENGINE, THIS ENGINE SHALL ONLY BE USED FOR EITHER PROVIDING ELECTRICAL POWER TO PORTABLE OPERATIONS OR EMERGENCY POWER TO STATIONARY SOURCES. PORTABLE OPERATIONS ARE THOSE WHERE IT CAN BE DEMONSTRATED THAT BECAUSE OF THE NATURE OF THE OPERATION, IT IS NECESSARY TO PERIODICALLY MOVE THE EQUIPMENT FROM ONE LOCATION TO ANOTHER. EMERGENCIES AT STATIONARY SOURCES ARE THOSE THAT RESULT IN AN INTERRUPTION OF SERVICE OF THE PRIMARY POWER SUPPLY OR DURING STAGE II OR III ELECTRICAL EMERGENCIES DECLARED BY THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR.



South Coast Air Quality Management District

FORM 400-E-13a

Emergency Internal Combustion Engine

This form must be accompanied by a completed Application for a Permit to Construct/Operate -Form 400A

Mail Application To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765

Tel: (909) 396-3385

www.aqmd.gov

Permit to be issued to (Business name of operator to appear on permit):

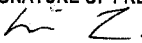
AES Alamos, LLC

Street location where the equipment will be operated (for equipment which will be moved to various location in SCAQMD's jurisdiction, please list the initial location site):

690 N. Studebaker Rd., Long Beach, CA 90803 | East Engine

Section A: Equipment Information

Internal Combustion Engine	Manufacturer:	Perkins	Model No.:	2806C-E18TTAG7	Serial No.:	
	EPA Family No.:	NCPXL18.1NYS		Date of Manufacture:	(mm/dd/yyyy) For an ICE manufactured after 7/18/94, please provide manufacturer's specification.	
	Manufacturer Maximum Rating:	1,112 BHP @ 1,800 RPM		Date of Installation:	(mm/dd/yyyy)	
ICE Emergency Function	☒ Electrical Generator ☐ Fire Pump ☐ Flood Control ☐ Pump Driver ☐ Compressor ☐ Water Pump ☐ Other _____					
Type	☒ Fixed site ☐ Portable How Is This Type of Equipment Used? (Check All That Apply) ☒ Within Facility ☐ Off- Site ☐ Rental					
Fuel	☒ Diesel Oil ☐ LPG ☐ Natural Gas ☐ Other: _____					
Cycle Type	☐ Two Cycle ☒ Four Cycle					
Combustion Type	☒ Lean Burn ☐ Rich Burn					
Engine Size	18.1 liters					
No. of Cylinders	☐ Four ☒ Six ☐ Eight ☐ Ten ☐ Twelve ☐ Sixteen ☐ Other _____					
Aspiration Type	☐ Naturally Aspirated ☐ Turbocharged ☒ Turbocharged/Aftercooled					
Air Pollution Control	Check all that apply: ☐ Selective Catalytic Reduction (SCR)* ☐ Catalytic Converter ☐ Selective Non-catalytic Reduction (SNCR)* ☐ Air/Fuel Ratio Controller ☐ Non-selective Catalytic Reduction (NSCR) ☐ No Controls ☒ Diesel Particulate Filter (DPF) ☐ Other (specify) _____					
	Manufacturer: <u>Miratech</u> Model No. <u>LTRV24-21-10-R1</u>					
	If already permitted, indicate Permit No. _____ Device No. _____ (RECLAIM and/or Title V Permits)					
	* Separate application is required.					
Additional Information for Diesel Particulate Filter (DPF) Filter Efficiency: <u>85</u> % CARB Certified? ☒ Yes ☐ No If Yes, provide a copy of the CARB Verification Certificate, or provide the Verification No. <u>See Attached</u> Installing a backpressure relief system? ☐ Yes ☐ No						

Section B: Operation Information																	
Fuel Consumption	Maximum Load: <u>54.3</u> gal/hr OR _____ cu ft/hr	Average Load: _____ gal/hr OR _____ cu ft/hr															
Operating Schedule	Normal: _____ hours/day _____ days/week _____ weeks/year																
	Maximum: _____ hours/day _____ days/week _____ weeks/year																
	Testing & Maintenance: <u>50</u> hours/year																
Section C: Engine Data																	
Is the engine EPA certified? ☒ Yes Provide a copy of EPA's Engine Certification. Choose one: ☐ Tier I ☒ Tier II ☐ Tier III ☐ Tier IV (Interim) ☐ Tier IV ☐ No Provide a copy of the Manufacturer's Emissions Data. If manufacturer's emissions data is not available, provide available emissions data below. Provide supporting documents. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 20%;">Carbon Monoxide (grams/bhp-hr)</th> <th style="width: 20%;">Hydrocarbons (grams/bhp-hr)</th> <th style="width: 20%;">Oxides of Nitrogen (grams/bhp-hr)</th> <th style="width: 20%;">Hydrocarbons + Oxides of Nitrogen (grams/bhp-hr)</th> <th style="width: 20%;">Particulate Matter (grams/bhp-hr)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Carbon Monoxide (grams/bhp-hr)	Hydrocarbons (grams/bhp-hr)	Oxides of Nitrogen (grams/bhp-hr)	Hydrocarbons + Oxides of Nitrogen (grams/bhp-hr)	Particulate Matter (grams/bhp-hr)										
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Section D: Sensitive Receptors																	
A. Distance from <u>engine stack to the fence line</u> of the nearest sensitive receptor (ie., long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools (K-12), playgrounds, child care centers, and athletic facilities): <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 33%;">Type of Facility</th> <th style="width: 33%;">Name of Facility</th> <th style="width: 34%;">Distance (feet)</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>University Park Estates</td> <td>1500</td> </tr> <tr> <td>Elementary School</td> <td>Charles F Kettering Elementary School</td> <td>2181</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Type of Facility	Name of Facility	Distance (feet)	Residential	University Park Estates	1500	Elementary School	Charles F Kettering Elementary School	2181						
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Section E: Applicant Certification Statement																	
I hereby certify that all information contained herein and submitted with this application is true and correct.																	
SIGNATURE OF PREPARER: 	TITLE OF PREPARER: Engineer																
CONTACT PERSON FOR INFORMATION ON THIS EQUIPMENT: Charlene He	CONTACT PERSON'S TELEPHONE NUMBER (562) 493-7835	DATE SIGNED: 4/20/2022															
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South Coast Air Quality Management District

Form 400-PS**Plot Plan And Stack Information Form**

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944Tel: (909) 396-3385
www.aqmd.gov**Section A - Operator Information**

Facility Name (Business Name of Operator To Appear On The Permit):

AES Alamitos, LLC

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):

115394

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site):

690 N. Studebaker Rd., Long Beach, CA 90803 | West Engine

☒ Fixed Location ☐ Various Locations**Section B - Location Data**

Plot Plan	Please attach a site map for the project with distances and scales. Identify and locate the proposed equipment on the map. A copy of the appropriate Thomas Brothers page, a web-based map, or a sketch that shows the major streets and location of the equipment is acceptable.
Location of Schools Nearby	Is the facility located within a 1/4 mile radius (1,320 feet) of the outer boundary of a school? ☒ Yes ☐ No If yes, please provide name(s) of school(s) below: School Name: <u>Charles F Kettering</u> School Name: _____ School Address: <u>550 Silvera Ave.</u> School Address: _____ <u>Long Beach, CA 90803</u> Distance from stack or equipment vent to the outer boundary of the school: <u>2,170</u> feet Distance from stack or equipment vent to the outer boundary of the school: _____ feet CA Health & Safety Code 42301.9: "School" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.
Population Density	☒ Urban ☐ Rural (<50% of land within 3 km radius accounted for by urban land use categories, i.e., multi-family dwelling or industrial.)
Zoning Classification	☒ Mixed Use Residential Commercial Zone (M-U) ☐ Service and Professional Zone (C-S) ☐ Medium Commercial (C-3)
	☐ Heavy Commercial (C-4) ☐ Commercial Manufacturing (C-M)

Section C - Emission Release Parameters - Stacks, Vents

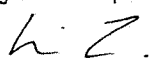
Stack Data	Stack Height: <u>15.33</u> feet (above ground level) What is the height of the closest building nearest the stack? _____ feet Stack Inside Diameter: <u>10.75</u> inches Stack Flow: <u>6,397</u> acfm Stack Temperature: <u>918</u> °F Rain Cap Present: ☐ Yes ☒ No Stack Orientation: ☒ Vertical ☐ Horizontal If the stack height is less than 2.5 times the closest building height (H), please provide information on any building within 5xH distance from the stack (attach additional sheet if necessary): Building #/Name: _____ Building #/Name: _____ Building Height: _____ feet (above ground level) Building Height: _____ feet (above ground level) Building Width: _____ feet Building Width: _____ feet Building Length: _____ feet Building Length: _____ feet
Receptor Distance From Equipment Stack or Roof Vents/Openings	Distance to nearest residence or sensitive receptor*: <u>1,257</u> feet Distance to nearest business: <u>1,080</u> feet
Building Information	Are the emissions released from vents and/or openings from a building? ☐ Yes ☒ No If yes, please provide: Building #/Name: _____ Building Width: _____ feet Building Height: _____ feet (above ground level) Building Length: _____ feet

*AQMD Rule 1470 defines SENSITIVE RECEPTOR as meaning any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Section D - Authorization/Signature			
I hereby certify that all information contained herein and information submitted with this application is true and correct.			
Signature of Preparer: 	Title of Preparer: Engineer, Yorke	Preparer's Phone #: (949) 573-5122	Preparer's Email: clundquist@yorkeengr.com
Contact Person: Charlene He	Contact's Phone#: (562) 493-7835	Date Signed: 4/20/2022	
Contact's Email: charlene.he@aes.com	Contact's Fax#:		
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Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):

115394

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site):

690 N. Studebaker Rd., Long Beach, CA 90803 | East Engine

☒ Fixed Location ☐ Various Locations**Section B - Location Data**

Plot Plan	Please attach a site map for the project with distances and scales. Identify and locate the proposed equipment on the map. A copy of the appropriate Thomas Brothers page, a web-based map, or a sketch that shows the major streets and location of the equipment is acceptable.
Location of Schools Nearby	Is the facility located within a 1/4 mile radius (1,320 feet) of the outer boundary of a school? ☒ Yes ☐ No If yes, please provide name(s) of school(s) below: School Name: <u>Charles F Kettering</u> School Name: _____ School Address: <u>550 Silvera Ave.</u> School Address: _____ <u>Long Beach, CA 90803</u> Distance from stack or equipment vent to the outer boundary of the school: <u>2,181</u> feet Distance from stack or equipment vent to the outer boundary of the school: _____ feet CA Health & Safety Code 42301.9: "School" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.
Population Density	☒ Urban ☐ Rural (<50% of land within 3 km radius accounted for by urban land use categories, i.e., multi-family dwelling or industrial.)
Zoning Classification	☒ Mixed Use Residential Commercial Zone (M-U) ☐ Service and Professional Zone (C-S) ☐ Medium Commercial (C-3)
	☐ Heavy Commercial (C-4) ☐ Commercial Manufacturing (C-M)

Section C - Emission Release Parameters - Stacks, Vents

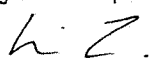
Stack Data	Stack Height: <u>15.33</u> feet (above ground level) What is the height of the closest building nearest the stack? _____ feet Stack Inside Diameter: <u>10.75</u> inches Stack Flow: <u>6,397</u> acfm Stack Temperature: <u>918</u> °F Rain Cap Present: ☐ Yes ☒ No Stack Orientation: ☒ Vertical ☐ Horizontal If the stack height is less than 2.5 times the closest building height (H), please provide information on any building within 5xH distance from the stack (attach additional sheet if necessary): Building #/Name: _____ Building #/Name: _____ Building Height: _____ feet (above ground level) Building Height: _____ feet (above ground level) Building Width: _____ feet Building Width: _____ feet Building Length: _____ feet Building Length: _____ feet
Receptor Distance From Equipment Stack or Roof Vents/Openings	Distance to nearest residence or sensitive receptor*: <u>1,500</u> feet Distance to nearest business: <u>820</u> feet
Building Information	Are the emissions released from vents and/or openings from a building? ☐ Yes ☒ No If yes, please provide: Building #/Name: _____ Building Width: _____ feet Building Height: _____ feet (above ground level) Building Length: _____ feet

*AQMD Rule 1470 defines SENSITIVE RECEPTOR as meaning any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Section D - Authorization/Signature			
I hereby certify that all information contained herein and information submitted with this application is true and correct.			
Signature of Preparer: 	Title of Preparer: Engineer, Yorke	Preparer's Phone #: (949) 573-5122	Preparer's Email: clundquist@yorkeengr.com
Contact Person: Charlene He	Contact's Phone#: (562) 493-7835	Date Signed: 4/20/2022	
Contact's Email: charlene.he@aes.com	Contact's Fax#:		
THIS IS A PUBLIC DOCUMENT Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District. Check here if you claim that this form or its attachments contain confidential trade secret information. ☐			



South Coast Air Quality Management District

Form 400-A**Application Form for Permit or Plan Approval**

List only one piece of equipment or process per form.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385

www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit): AES Alamitos, LLC	2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 115394
3. Owner's Business Name (If different from Business Name of Operator):	

Section B - Equipment Location Address

4. Equipment Location Is: ☒ Fixed Location ☐ Various Location
(For equipment operated at various locations, provide address of initial site.)

690 N. Studebaker Rd.
Street Address

Long Beach, CA 90803
City Zip

Charlene He Environmental Manager
Contact Name Title

(562) 493-7835
Phone #

Ext. Fax #

E-Mail: charlene.he@aes.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☒ Check here if same as equipment location address

690 N. Studebaker Rd.
Address

Long Beach, CA 90803
City State Zip

Charlene He Environmental Manager
Contact Name Title

(562) 493-7835
Phone #

Ext. Fax #

E-Mail: charlene.he@aes.com

Section D - Application Type

6. The Facility Is: ☐ Not In RECLAIM or Title V ☐ In RECLAIM ☐ In Title V ☒ In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:

☐ New Construction (Permit to Construct)
☐ Equipment On-Site But Not Constructed or Operational
☐ Equipment Operating Without A Permit *
☐ Compliance Plan
☐ Registration/Certification
☐ Streamlined Standard Permit

7b. Facility Permits:

☒ Title V Application or Amendment (Refer to Title V Matrix)
☐ RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:

☐ Administrative Change
☐ Alteration/Modification
☐ Alteration/Modification without Prior Approval *
☐ Change of Condition
☐ Change of Condition without Prior Approval *
☐ Change of Location
☐ Change of Location without Prior Approval *
☐ Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy):
01/01/2023

8b. Estimated End Date of Construction (mm/dd/yyyy):
04/30/2023

8c. Estimated Start Date of Operation (mm/dd/yyyy):
05/01/2023

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Title V and RECLAIM facility permit amendment for two emergency generators.

10. For identical equipment, how many additional applications are being submitted with this application?
(Form 400-A required for each equipment / process)

11. Are you a Small Business as per AQMD's Rule 102 definition?
(10 employees or less and total gross receipts are \$500,000 or less OR a not-for-profit training center) ☒ No ☐ Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment?
If Yes, provide NOV/NC#: ☒ No ☐ Yes

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Generation, Electric Power

14. What is your business primary NAICS Code?
(North American Industrial Classification System) 221112

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ☐ No ☒ Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? ☐ No ☒ Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: 	18. Title of Responsible Official: V.P., AES Southland Energy	19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ☐ No ☒ Yes
20. Print Name: Weikko Wirta	21. Date: 04/18/2022	22. Do you claim confidentiality of data? (If Yes, see instructions.) ☒ No ☐ Yes
23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed		

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED \$	PAYMENT TRACKING #	VALIDATION
DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL
EQUIPMENT CATEGORY CODE			TEAM	ENGINEER	REASON/ACTION TAKEN



South Coast Air Quality Management District

Form 400-CEQA

California Environmental Quality Act (CEQA) Applicability

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

The SCAQMD is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the SCAQMD in clarifying whether or not the project ¹ has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document [CEQA Guidelines § 15060(a)]. Form 400-CEQA and the instructions for guidance on completing this form are available at <http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms> or <http://www.aqmd.gov/home/permits/permit-application-forms>. For each Form 400-A application, also complete and submit one Form 400-CEQA. If submitting multiple Form 400-A applications for the same project at the same time, only one Form 400-CEQA is necessary for the entire project. If you need assistance completing this form, contact Permit Services at (909) 396-3385.

Section A – Facility Information

1. Facility Name (Business Name of Operator to Appear on the Permit):

AES Alamos, LLC

2. SCAQMD Facility ID:

115394

3. Project Description:

Two Emergency IC Engines

Section B – Review For Exemption From Further CEQA Action

Check "Yes" or "No" as applicable. If "Yes" is checked for any question in Section B, skip Section C and proceed to page 2 and complete Section D - Signatures.

	Yes	No	Is this application for:
1.	☐	☒	A request for a change of operator only (without equipment or process change modifications)?
2.	☐	☒	A functionally identical permit unit replacement with no increase in equipment unit rating or emissions?
3.	☐	☒	A change of daily VOC permit limit to a monthly VOC permit limit?
4.	☐	☒	Equipment damaged as a result of a disaster during state of emergency?
5.	☐	☒	A Title V (e.g., SCAQMD Regulation XXX) permit renewal without equipment or process change modifications?
6.	☐	☒	A Title V administrative permit revision?
7.	☐	☒	The conversion of an existing permit into an initial Title V permit?

Section C – Review of Impacts Which May Trigger Further CEQA Review

Check "Yes" or "No" as applicable. To avoid delays in processing your application(s), explain all "Yes" responses on a separate sheet and attach it to this form.

	Yes	No	
1.	☐	☒	Is this project specifically evaluated in a previously certified or adopted CEQA document? If "Yes" is checked, attach a copy of the signed Notice of Determination to this form.
2.	☐	☒	Is this project specifically exempted from CEQA by another entity (e.g., city or agency)? If "Yes" is checked, attach a copy of the signed Notice of Exemption or other documentation from the entity to this form.
3.	☐	☒	Is this project part of a larger project? If "Yes" is checked, attach a separate sheet to briefly describe the larger project.
4.	☐	☒	Will the project increase the QUANTITY of hazardous materials stored aboveground onsite or transported by mobile vehicle to or from the site by greater than or equal to the amounts associated with each compound listed on Form 400-CEQA, Table 1 - Regulated Substances List and Threshold Quantities for Accidental Release Prevention [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]? If "Yes" is checked, attach a separate sheet to identify each hazardous material and corresponding quantity to be transported, stored, or used.
5.	☐	☒	Will the project emit any air toxic listed on Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]? ² If "Yes" is checked, attach a separate sheet to identify each air toxic and corresponding quantity to be emitted.
6.	☐	☒	Will the project require any demolition, excavation, and/or grading construction activities that encompass an area exceeding 20,000 square feet?

¹ A "project" means the whole of an action which has a potential for resulting in physical change to the environment, including construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit. For example, a project might include installation of a new, or modification of an existing internal combustion engine, dry cleaning facility, boiler, gas turbine, spray coating booth, solvent cleaning tank, etc.

² Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels, contains a list of air toxics that either do not have a cancer potency (CP) or reference exposure level (REL) approved by the Office of Environmental Health Hazards Assessment (OEHA) or have a combination of OEHA-approved and non-approved CPs or RELs.

Section C – Review of Impacts Which May Trigger Further CEQA (concluded)

	Yes	No	
7.	☒	☐	Will the project utilize a boiler, engine, or other combustion equipment that uses fuel (e.g., gasoline, diesel, natural gas, liquefied petroleum gas (LPG), or landfill gas)? If "Yes" is checked, then the applicant will need to calculate the amount of GHGs from fuel use via on the Greenhouse Gas (GHG) online estimator (http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms), and attaching the printout or by conducting hand calculations and providing the documentation. Refer to the Instructions for Form 400-CEQA for guidance.
8.	☐	☒	Will the project utilize other types of equipment not addressed in Question 7 that require the use of, or will generate, any chemicals listed on Form 400-CEQA, Table 3 - Greenhouse Gases (http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms)? If "Yes" is checked, attach a separate sheet to identify each equipment unit, the chemical name(s), and the quantity of each chemical identified.
9.	☐	☒	Will the project include the open outdoor storage of dry bulk solid materials that could generate dust? If "Yes" is checked, include a plot plan with the application package.
10.	☐	☒	Will the project result in or make worse noticeable off-site odors from activities that may not be subject to SCAQMD permit requirements? For example, landfills, materials recovery/recycling facilities (MRF), and compost materials or other types of greenwaste (e.g., lawn clippings, tree trimmings, etc.) have the potential to generate odor complaints subject to SCAQMD Rule 402 – Nuisance.
11.	☐	☒	Will the project cause an increase of emissions from marine vessels, trains and/or airplanes?
12.	☐	☒	Will the project increase demand for potable water at the facility by more than 262,820 gallons per day? The following examples identify some, but not all, types of projects that may result in a "Yes" answer to this question: 1) a project that generates steam; 2) a project that uses water as part of operating air pollution control equipment; 3) a project that requires water as part of the production process; 4) a project that requires a new, or the expansion of an existing, sewage treatment facility, new water lines, sewage lines, sewage hook-ups etc.; 5) a project where the water demand exceeds the capacity of the local water purveyor to supply sufficient water for the project; 6) a project that requires new or the expansion of existing, water supply and conveyance facilities; and, 7) a project that requires water to hydrotest pipelines, storage tanks etc. for structural integrity.
13.	☐	☒	Will the project create an increase in the mass inflow of effluents to a public wastewater treatment facility that would require a new, or revision to an existing, National Pollutant Discharge Elimination System (NPDES) or other related permit at the facility?
14.	☐	☒	Will the project result in the need for more than 350 new employees?
15.	☐	☒	Will the project result in an increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round-trips per day?
16.	☐	☒	Will the project result in an increase in customer traffic by more than 700 visits per day?
17.	☐	☒	Will the project result in temporary or permanent noise or vibration in excess of what is allowed by the applicable local noise ordinance?
18.	☐	☒	Will the project create a permanent need for new or additional solid waste disposal? Check "No" if the projected potential amount of solid waste to be generated by the project is less than five tons per day.
19.	☐	☒	Will the project create a permanent need for new or additional hazardous waste disposal? Check "No" if the projected potential amount of hazardous wastes to be generated by the project is less than 42 cubic yards per day (or equivalent in pounds).
20.	☐	☒	Will the project include equipment that after installation or modification will change the visual character of the site and its surroundings or block views?
21.	☐	☒	Will the project have equipment that will create a new source of external lighting that will be visible at the property line?

Section D – SIGNATURES

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THIS FORM IS A SCREENING TOOL AND THAT THE SCAQMD RESERVES THE RIGHT TO CONSIDER OTHER PERTINENT INFORMATION IN DETERMINING CEQA APPLICABILITY.			
1. Signature of Responsible Official of Firm: 		2. Title of Responsible Official of Firm: Vice President, AES Southland Energy	
3. Print Name of Responsible Official of Firm: Weikko Wirta		4. Date Signed: 04/18/2022	
5. Phone # of Responsible Official of Firm: (714) 374-1421	6. Fax # of Responsible Official of Firm:	7. Email of Responsible Official of Firm: weikko.wirta@aes.com	
8. Signature of Preparer, (If prepared by person other than responsible official of firm): 		9. Title of Preparer: Engineer	
10. Print Name of Preparer: Collin Lundquist		11. Date Signed: 4/20/2022	
12. Phone # of Preparer: (949) 573-5122	13. Fax # of Preparer:	14. Email of Preparer: clundquist@yorkeengr.com	

THIS CONCLUDES FORM 400-CEQA. INCLUDE THIS FORM AND ANY ATTACHMENTS WITH FORM 400-A.



South Coast Air Quality Management District

Form 500-A2**Title V Application Certification**

Mail To:

SCAQMD

P.O. Box 4944

Diamond Bar, CA 91765-0944

Tel: (909) 396-3385

www.aqmd.gov

Section I - Operator Information**1. Facility Name** (Business Name of Operator That Appears On Permit):

AES Alamos, LLC

2. Valid AQMD Facility ID (Available On Permit Or Invoice)

Issued By AQMD):

115394

3. This Certification is

submitted with a (Check one):

- a. ☒ Title V Application (Initial, Revision or Renewal)
- b. ☐ Supplement/Correction to a Title V Application
- c. ☐ MACT Part 1

4. Is Form 500-C2 included with this Certification? ☐ Yes ☒ No**Section II - Responsible Official Certification Statement**

Read each statement carefully and check each that applies – You must check 3a or 3b.

1. For Initial, Permit Renewal, and Administrative Application Certifications:

- a. ☐ The facility, including equipment that are exempt from written permit per Rule 219, is currently operating and will continue to operate in compliance with all applicable requirement(s) identified in Section II and Section III of Form 500-C1,
- i. ☐ except for those requirements that do not specifically pertain to such devices or equipment and that have been identified as "Remove" on Section III of Form 500-C1.
- ii. ☐ except for those devices or equipment that have been identified on the completed and attached Form 500-C2 that will not be operating in compliance with the specified applicable requirement(s).
- b. ☐ The facility, including equipment that are exempt from written permit per Rule 219, will meet in a timely manner, all applicable requirements with future effective dates.

2. For Permit Revision Application Certifications:

- a. ☒ The equipment or devices to which this permit revision applies, will in a timely manner comply with all applicable requirements identified in Section II and Section III of Form 500-C1.

3. For MACT Hammer Certifications:

- a. ☐ The facility is subject to Section 112(j) of the Clean Air Act (Subpart B of 40 CFR part 63), also known as the MACT "hammer." The following information is submitted with a Title V application to comply with the Part 1 requirements of Section 112(j).
- b. ☒ The facility is not subject to Section 112(j) of the Clean Air Act (Subpart B of 40 CFR part 63).

Section III - Authorization/Signature

I certify under penalty of law that I am the responsible official for this facility as defined in AQMD Regulation XXX and that based on information and belief formed after reasonable inquiry, the statement and information in this document and in all attached application forms and other materials are true, accurate, and complete.

1. Signature of Responsible Official:**2. Title of Responsible Official:**

Vice President, AES Southland Energy

3. Print Name:

Weikko Wirta

4. Date:

04/18/2022

5. Phone #:

(714) 374-1421

6. Fax #:**7. Address of Responsible Official:**

690 N. Studebaker Rd.

Long Beach

CA

90803

Street #

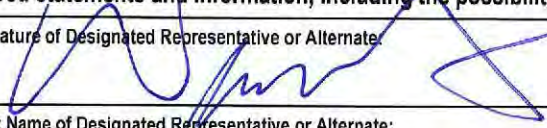
City

State

Zip

Acid Rain Facilities Only: Please Complete Section IV

Acid Rain facilities must certify their compliance status of the devices subject to applicable requirements under Title IV by an individual who meets the definition of Designated (or Alternate) Representative in 40 CFR Part 72.

Section IV - Designated Representative Certification Statement	
For Acid Rain Facilities Only: I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.	
1. Signature of Designated Representative or Alternate: 	2. Title of Designated Representative or Alternate: Vice President, AES Southland Energy
3. Print Name of Designated Representative or Alternate: Weikko Wirta	4. Date: 04/18/2022
5. Phone #: (714) 374-1421	6. Fax #:
7. Address of Designated Representative or Alternate: 690 N. Studebaker Rd. Long Beach CA 90803	
Street #	City State Zip

**Form 500-C1****Title V Compliance Status Report**

To provide the compliance status of your facility with applicable federally enforceable requirements and identify other local-only requirements, complete this form and attach it to a completed compliance certification Form 500-A2. As appropriate, all submittals of Form 500-C2 as appropriate should also be attached to this form.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

Section I - Operator Information**1. Facility Name** (Business Name of Operator That Appears On Permit):

AES Alamitos, LLC

2. Valid AQMD Facility ID (Available On Permit Or Invoice

Issued By AQMD):

115394

PROCEDURES FOR DETERMINING COMPLIANCE STATUS

- Equipment verification:** Review the list of pending applications, and either the preliminary Title V facility permit or the list of current permits to operate that the AQMD provided you, to determine if they completely and accurately describe all equipment operating at the facility. Attach a statement to describe any discrepancies.
- Identify applicable requirements*:** Use the checklist in Section II to identify all applicable and federally-enforceable local, state, and federal rules and regulations, test methods, and monitoring, recordkeeping and reporting (MRR) requirements that apply to any equipment or process (including equipment exempt from a permit by Rule 219) at your facility. The potential applicable requirements, test methods and MRR requirements are identified and listed adjacent to each given equipment/process description. Check off each box adjacent to the corresponding requirement as it applies to your particular equipment/process.
Note: Even if there is only one piece of equipment that is subject to a particular requirement, the appropriate box should be checked.
- Identify additional applicable requirements*:** Use Section III to identify any additional requirements not found in Section II. Section II is not a complete list of all applicable requirements. It does not include recently adopted NESHAP regulations by EPA or recent amendments to AQMD rules. Do not add rules listed in Section V here.
- Identify any requirements that do not apply to a specific piece of equipment or process:** Also use Section III to identify any requirements that are listed in Section II but that do not apply to a specific piece of equipment or process. Fill out Section III of this form and attach a separate sheet to explain the reason(s) why the identified rules do not apply. Note: Listing any requirement that does not apply to a specific piece of equipment will not provide the facility with a permit shield unless one is specifically requested by completing Form 500-D and is approved by AQMD.
- Identify SIP-approved rules that are not current AQMD rules:** Use Section IV to identify older versions of current AQMD rules that are the EPA-approved versions in the State Implementation Plan (SIP), and that are still applicable requirements as defined by EPA. The facility is not required to certify compliance with the items checked in Section IV provided that the non-SIP approved rule in Section II is at least as stringent as the older SIP-approved version in Section IV. **
- Identify Local-Only Enforceable Regulatory Requirements:** Use Section V to identify AQMD rules that are not SIP-approved and are not federally enforceable.
- Determine compliance:** Determine if all equipment and processes are complying with all requirements identified in Sections II and III. If each piece of equipment complies with all applicable requirements, complete and attach Form 500-A2 to certify the compliance status of the facility. If any piece of equipment is not in compliance with any of the applicable requirements, complete and attach Form 500-C2 in addition to Form 500-A2.

* The following AQMD rules and regulations are not required to be included in Section II and do not have to be added to Section III: Regulation I, List and Criteria in Regulation II, Rule 201, Rule 201.1, Rule 202, Rule 203, Rule 205, Rule 206, Rule 207, Rule 208, Rule 209, Rule 210, Rule 212, Rule 214, Rule 215, Rule 216, Rule 217, Rule 219, Rule 220, Rule 221, Regulation III, Regulation V, Regulation VIII, Regulation XII, Regulation XV, Regulation XVI, Regulation XIX, Regulation XXI, Regulation XXII, and Regulation XXX.

** Emission units adversely affected by the gap between current and SIP-approved versions of rules may initially be placed in a non-Title V portion of the permit

Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ All Air Pollution Control Equipment Using Combustion (RECLAIM & non-RECLAIM sources)	☐ Rule 480 (10/07/77)	N/A	N/A
☐ All Coating Operations (12/15/00)	☐ Rule 442	☐ Rule 442(f)	☐ Rule 442(g)
☐ All Combustion Equipment, ≥ 555 Mmbtu/Hr (except for NO _x RECLAIM sources)	☐ Rule 474 (12/04/81)	☐ AQMD TM 7.1 or 100.1	
☒ All Combustion Equipment Except Internal Combustion Engines (RECLAIM & non-RECLAIM sources)	☒ Rule 407 (04/02/82) ☒ Rule 409 (08/07/81)	☒ AQMD TM 100.1 or 10.1, 307-91 ☒ AQMD TM 5.1, 5.2, or 5.3	
☒ All Combustion Equipment Using Gaseous Fuel (except SO _x RECLAIM sources)	☒ Rule 431.1 (06/12/98)	☒ Rule 431.1(f)	☐ Rule 431.1(d) & (e)
☒ All Combustion Equipment Using Liquid Fuel (except SO _x RECLAIM sources)	☒ Rule 431.2 (09/15/00)	☒ Rule 431.2(g)	☒ Rule 431.2(f)
☐ All Combustion Equipment Using Fossil Fuel (except SO _x RECLAIM sources)	☐ Rule 431.3 (05/07/76)		
☒ All Equipment	☒ Rule 401 (11/09/01) ☒ Rule 405 (02/07/86) ☐ Rule 408 (05/07/76) ☒ Rule 430 (07/12/96) ☐ Rule 701 (06/13/97) ☒ New Source Review, BACT ☒ Rule 1703 (10/07/88) ☒ 40 CFR68 - Accidental Release Prevention	☒ California Air Resources Board Visible Emission Evaluation ☒ AQMD TM 5.1, 5.2, or 5.3 N/A See Applicable Subpart	☒ Rule 430(b) See Applicable Subpart
☐ All Equipment Processing Solid Materials	☐ Rule 403 (06/03/05)	☐ Rule 403(d)(3)	☐ Rule 403(f)
☒ All Equipment With Exhaust Stack (except cement kilns subject to Rule 1112.1)	☒ Rule 404 (02/07/86)	☒ AQMD TM 5.1, 5.2, or 5.3	
☒ All Facilities Using Solvents to Clean Various Items or Equipment	☒ Rule 109 (05/02/03) ☒ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART T	☒ Rule 109(g) ☒ Rule 1171(e) See Applicable Subpart	☒ Rule 109(c) ☒ Rule 1171(c)(6) See Applicable Subpart
☒ All RECLAIM Equipment (NO _x & SO _x)	☒ Reg. XX - RECLAIM	☐ Rule 2011, App. A (05/06/05) ☒ Rule 2012, App. A (05/06/05)	☐ Rule 2011, App. A (05/06/05) ☒ Rule 2012, App. A (05/06/05)
☒ Abrasive Blasting	☒ Rule 1140 (08/02/85)	☒ Rule 1140(d) & (e), AQMD Visible Emission Method	

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Aggregate and Related Operations	☐ Rule 1157 (09/08/06)	☐ Rule 1157(f)	☐ Rule 1157(e)
☐ Appliances Containing Ozone Depleting Substances (except Motor Vehicle Air Conditioners): Manufacturing, Repair, Maintenance, Service, & Disposal	☐ 40 CFR82 SUBPART F	See Applicable Subpart	See Applicable Subpart
☐ Asphalt	See Manufacturing, Asphalt Processing & Asphalt Roofing		
☐ Asphalt Concrete/Batch Plants	☐ 40 CFR60 SUBPART I	See Applicable Subpart	See Applicable Subpart
☐ Benzene Emissions, Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, & Coke By-Product Recovery Plants	☐ Rule 1173 (02/06/09) ☐ Rule 1176 (09/13/96) ☐ 40 CFR61 SUBPART L ☐ 40 CFR61 SUBPART Y ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 1173(j) ☐ Rule 1176(h) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 1173(i) ☐ Rule 1176(f) & (g) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Benzene Transfer Operations	☐ Rule 1142 (07/19/91) ☐ 40 CFR61 SUBPART BB ☐ 40 CFR63 SUBPART Y	☐ Rule 1142(e) See Applicable Subpart See Applicable Subpart	☐ Rule 1142(h) See Applicable Subpart See Applicable Subpart
☐ Benzene Waste Operations	☐ Rule 1176 (09/13/96) ☐ 40 CFR61 SUBPART FF ☐ 40 CFR63 SUBPART CC	☐ Rule 1176(h) See Applicable Subpart See Applicable Subpart	☐ Rule 1176(f) & (g) See Applicable Subpart See Applicable Subpart
☐ Beryllium Emissions	☐ 40 CFR61 SUBPART C	See Applicable Subpart	See Applicable Subpart
☐ Beryllium Emissions, Rocket Motor Firing	☐ 40 CFR61 SUBPART D	See Applicable Subpart	See Applicable Subpart
☐ Boiler, < 5 Mmbtu/Hr (non-RECLAIM sources)	☐ Rule 1146.1 (09/05/08) ☐ Rule 1146.2 (05/05/06) ☐ 40 CFR63 SUBPART DDDDD	☐ Rule 1146.1(d) N/A See Applicable Subpart	☐ Rule 1146.1(c)(2) & (c)(3) N/A See Applicable Subpart
☐ Boiler, < 5 Mmbtu/Hr (RECLAIM sources)	☐ Rule 1146.1 (09/05/08) - excluding NOx requirements ☐ 40 CFR63 SUBPART DDDDD	☐ Rule 1146.1(d) See Applicable Subpart	☐ Rule 1146.1(c)(2) & (c)(3) See Applicable Subpart

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Boiler, ≥ 5 Mmbtu/Hr (non-RECLAIM sources)	☐ Rule 218 (05/14/99) ☐ Rule 429 (12/21/90) ☐ Rule 475 (08/07/78) ☐ Rule 476 (10/08/76) ☐ Rule 1146 (09/05/08) ☐ 40 CFR60 SUBPART D ☐ 40 CFR60 SUBPART Da ☐ 40 CFR60 SUBPART Dc ☐ 40 CFR63 SUBPART DDDDD	☐ AQMD TM 100.1 N/A ☐ AQMD TM 5.1, 5.2, or 5.3 ☐ AQMD TM 7.1, 100.1, 5.1, 5.2, or 5.3 ☐ Rule 1146(d) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 218(e) & (f) ☐ Rule 429(d) ☐ Rule 1146(c)(6) & (c)(7) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☒ Boiler, ≥ 5 Mmbtu/Hr (RECLAIM sources)	☒ Rule 475 (08/07/78) ☒ Rule 476 (10/08/76) - excluding NOx requirements ☒ Rule 1146 (09/05/08) - excluding NOx requirements ☐ Rule 2011 (05/06/05) ☒ ^{or} Rule 2012 (05/06/05) ☐ 40 CFR60 SUBPART D ☐ 40 CFR60 SUBPART Da ☐ 40 CFR60 SUBPART Dc ☒ 40 CFR63 SUBPART DDDDD	☒ AQMD TM 5.1, 5.2, or 5.3 ☒ AQMD TM 7.1, 100.1, 5.1, 5.2, or 5.3 ☐ Rule 1146(d) ☐ Rule 2011, App. A (05/06/05) ☒ ^{or} Rule 2012, App. A (05/06/05) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☒ Rule 1146(c)(6) & (c)(7) ☐ Rule 2011, App. A (05/06/05) ☒ ^{or} Rule 2012, App. A (05/06/05) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Boiler, Petroleum Refining (non-RECLAIM sources)	☐ Rule 218 (05/14/99) ☐ Rule 429 (12/21/90) ☐ Rule 431.1 (06/12/98) ☐ Rule 475 (08/07/78) ☐ Rule 1146 (09/05/08) ☐ 40 CFR60 SUBPART J ☐ 40 CFR63 SUBPART DDDDD	☐ AQMD TM 100.1 N/A ☐ Rule 431.1(f) ☐ AQMD TM 5.1, 5.2, or 5.3 ☐ Rule 1146(d) See Applicable Subpart See Applicable Subpart	☐ Rule 218(e) & (f) ☐ Rule 429(d) ☐ Rule 431.1(d) & (e) ☐ Rule 1146(c)(6) & (c)(7) See Applicable Subpart See Applicable Subpart

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Boiler, Petroleum Refining (RECLAIM sources)	☐ Rule 1146 (09/05/08) - excluding NOx requirements ☐ Rule 2011 (05/06/05) ☐ or ☐ Rule 2012 (05/06/05) ☐ 40 CFR60 SUBPART J ☐ 40 CFR63 SUBPART DDDDD	☐ Rule 1146(d) ☐ Rule 2011, App. A (05/06/05) ☐ or ☐ Rule 2012, App. A (05/06/05) See Applicable Subpart See Applicable Subpart	☐ Rule 1146(c)(6) & (c)(7) ☐ Rule 2011, App. A (05/06/05) ☐ or ☐ Rule 2012, App. A (05/06/05) See Applicable Subpart See Applicable Subpart
☐ Boilers, Electric Utility (non-RECLAIM sources)	☐ Rule 218 (05/14/99) ☐ Rule 429 (12/21/90) ☐ Rule 1135 (07/19/91) ☐ 40 CFR60 SUBPART Db ☐ 40 CFR63 SUBPART DDDDD	☐ AQMD TM 100.1 N/A ☐ Rule 1135(e) See Applicable Subpart See Applicable Subpart	☐ Rule 218(e) & (f) ☐ Rule 429(d) ☐ Rule 1135(e) See Applicable Subpart See Applicable Subpart
☒ Boilers, Electric Utility (RECLAIM sources)	☒ Rule 2012 (05/06/05) ☐ 40 CFR60 SUBPART Db ☐ 40 CFR63 SUBPART DDDDD	☒ Rule 2012, App. A (05/06/05) See Applicable Subpart See Applicable Subpart	☒ Rule 2012, App. A (05/06/05) See Applicable Subpart See Applicable Subpart
☐ Bulk Loading Of Organic Liquids	☐ Rule 462 (05/14/99) ☐ 40 CFR60 SUBPART XX ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART BBBB ☐ 40 CFR63 SUBPART EEEE	☐ Rule 462(f) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 462(g) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Cadmium Electroplating Operation	☐ Rule 1426 (05/02/03)		☐ Rule 1426(e)
☐ Calciner, Mineral Industries	☐ 40 CFR60 SUBPART UUU	See Applicable Subpart	See Applicable Subpart
☐ Calciner, Petroleum Coke	☐ Rule 477 (04/03/81) ☐ Rule 1119 (03/02/79) ☐ 40 CFR63 SUBPART L	☐ AQMD Visible Emissions, AQMD TM 5.1, 5.2, or 5.3 ☐ AQMD TM 6.1 or 100.1 See Applicable Subpart	See Applicable Subpart
☐ Charbroilers	☐ Rule 1174 (10/05/90) ☐ Rule 1138 (11/14/97)	☐ AQMD Test Protocol ☐ Rule 1138(g)	☐ Rule 1138(d)
☐ Chrome Plating & Chromic Acid Anodizing Operation	☐ Rule 1426 (05/02/03) ☐ Rule 1469 (12/05/08)	☐ Rule 1469(e)	☐ Rule 1426(e) ☐ Rule 1469(g), (j) & (k)

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Coating Operation, Adhesive Application Operation	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1132 (05/05/06) ☐ Rule 1168 (01/07/05) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART RR	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1132(f) ☐ Rule 1168(f) & (e) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1132(g) ☐ Rule 1168(d) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Coating Operation, Aerospace Assembly & Component Manufacturing	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1124 (09/21/01) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART GG	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1124(e) & (f) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1124(j) & (d) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Coating Operation, Graphic Arts (Gravure, Letter Press, Flexographic & Lithographic Printing Process, Etc.)	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1130 (10/08/99) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART QQ ☐ 40 CFR60 SUBPART RR ☐ 40 CFR60 SUBPART FFF ☐ 40 CFR60 SUBPART VVV ☐ 40 CFR63 SUBPART KK ☐ 40 CFR63 SUBPART JJJJ	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1130(h) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1130(e) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Coating Operation, Magnet Wire Coating	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1126 (01/13/95) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09)	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1126(d) ☐ Rule 1132(f) ☐ Rule 1171(e)	☐ Rule 109(c) ☐ Rule 1126(c)(4) ☐ Rule 1132(g) ☐ Rule 1171(c)(6)

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Coating Operation, Marine Coating (Except for recreational equipment)	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1106 (01/13/95) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART II	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1106(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1106(c)(5) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Coating Operation, Metal Coating	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1107 (01/06/06) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART EE ☐ 40 CFR60 SUBPART SS ☐ 40 CFR63 SUBPART NNNN ☐ 40 CFR63 SUBPART MMMM ☐ 40 CFR63 SUBPART RRRR	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1107(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1107(j) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Coating Operation, Metal Containers, Closure, & Coil Coating Operations	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1125 (03/07/08) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART TT ☐ 40 CFR60 SUBPART WW ☐ 40 CFR63 SUBPART KKKK ☐ 40 CFR63 SUBPART SSSS	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1125(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1125(c)(6) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Coating Operation, Motor Vehicle & Mobile Equipment Non-Assembly Line Coating Operation	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1132 (05/05/06) ☐ Rule 1151 (12/02/05) ☐ Rule 1171 (05/01/09)	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1132(f) ☐ Rule 1151(h) ☐ Rule 1171(e)	☐ Rule 109© ☐ Rule 1132(g) ☐ Rule 1151(f) ☐ Rule 1171(c)(6)

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Coating Operation, Motor Vehicle Assembly Line	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1115 (05/12/95) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART MM ☐ 40 CFR63 SUBPART IIII	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1115(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1115(g) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart See Applicable Subpart
☐ Coating Operation, Paper, Fabric, & Film Coating Operations	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1128 (03/08/96) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART VVV ☐ 40 CFR63 SUBPART OOOO	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1128(f) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1128(e) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart See Applicable Subpart
☐ Coating Operation, Plastic, Rubber, & Glass	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1145 (12/04/09) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR60 SUBPART TTT ☐ 40 CFR63 SUBPART NNNN ☐ 40 CFR63 SUBPART PPPP	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1145(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1145(d) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Coating Operation, Pleasure Craft	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1106.1 (02/12/99) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART II	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1106.1(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1106.1(d) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart

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☐ Coating Operation, Screen Printing	☐ Rule 109 (05/02/03) ☐ Rule 1130.1 (12/13/96) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART KK	☐ Rule 109(g) ☐ Rule 1130.1(g) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1130.1(c)(5) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart
☒ Coating Operation, Use Of Architectural Coating (Stationary Structures)	☒ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☒ Rule 1113 (07/13/07) ☐ Rule 1132 (05/05/06) ☒ Rule 1171 (05/01/09)	☒ Rule 109(g) ☒ Rule 481(d) ☒ Rule 1113(e) ☐ Rule 1132(f) ☒ Rule 1171(e)	☒ Rule 109(c) ☐ Rule 1132(g) ☒ Rule 1171(c)(6)
☐ Coating Operation, Wood Flat Stock	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1104 (08/13/99) ☐ Rule 1132 (05/05/06) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART II	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1104(e) ☐ Rule 1132(f) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1104(d) ☐ Rule 1132(g) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Coating Operation, Wood Products (Commercial Furniture, Cabinets, Shutters, Frames, Toys)	☐ Rule 109 (05/02/03) ☐ Rule 481 (01/11/02) ☐ Rule 1132 (05/05/06) ☐ Rule 1136 (06/14/96) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART JJ	☐ Rule 109(g) ☐ Rule 481(d) ☐ Rule 1132(f) ☐ Rule 1136(f) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1132(g) ☐ Rule 1136(d) & (g) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Coater	See Coating Operations		
☐ Columns	See Petroleum Refineries, Fugitive Emissions		
☐ Composting Operation	☐ Rule 1133 (01/10/03) ☐ Rule 1133.1 (01/10/03) ☐ Rule 1133.2 (01/10/03)	☐ Rule 1133.1(e) ☐ Rule 1133.2(g)	☐ Rule 1133.1(d) ☐ Rule 1133.2(h)
☐ Compressors	See Fugitive Emissions or Petroleum Refineries, Fugitive Emissions		
☐ Concrete Batch Plants	See Nonmetallic Mineral Processing Plants		
☐ Consumer Product Manufacturing	See Manufacturing, Consumer Product		
☐ Cooling Tower, Hexavalent Chromium	☐ 40 CFR63 SUBPART Q	See Applicable Subpart	See Applicable Subpart

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Copper Electroplating Operation	☐ Rule 1426 (05/02/03)		☐ Rule 1426(e)
☐ Crude Oil Production	See Oil Well Operations		
☐ Crusher	See Nonmetallic Mineral Processing Plants		
☐ Dairy Farms and Related Operations	☐ Rule 1127 (08/06/04)	☐ Rule 1127(h)	☐ Rule 1127(g)
☐ Degreasers	☐ Rule 109 (05/02/03) ☐ Rule 1122 (05/01/09) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART T	☐ Rule 109(g) ☐ Rule 1122(h) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1122(i) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Dry Cleaning, Perchloroethylene	☐ Rule 1421 (12/06/02)	☐ Rule 1421(e) & (i)	☐ Rule 1421(g) & (h)
☐ Dry Cleaning, Petroleum Solvent	☐ Rule 109 (05/02/03) ☐ Rule 1102 (11/17/00) ☐ 40 CFR60 SUBPART JJJ	☐ Rule 109(g) ☐ Rule 1102(g) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1102(f) See Applicable Subpart
☐ Dryers, Mineral Industries	☐ 40 CFR60 SUBPART UUU	See Applicable Subpart	See Applicable Subpart
☐ Ethylene Oxide Sterilizer	See Sterilizer, Ethylene Oxide		
☐ Flanges	See Fugitive Emissions or Petroleum Refineries, Fugitive Emissions		
☐ Fluid Catalytic Cracking Unit	☐ Rule 218 (05/14/99) ☐ Rule 1105 (09/01/84) ☐ Rule 1105.1 (11/07/03)	☐ AQMD TM 100.1 ☐ Rule 1105(c)(1) ☐ Rule 1105.1(f)	☐ Rule 218(e) & (f) ☐ Rule 1105(c)(2) ☐ Rule 1105.1(e)
☐ Foundries, Iron and Steel	☐ 40 CFR63 SUBPART EEEEE	See Applicable Subpart	See Applicable Subpart
☐ Friction Materials Manufacturing	See Manufacturing, Friction Materials		
☐ Fugitive Emissions, Benzene	☐ Rule 1173 (12/06/02) ☐ 40 CFR61 SUBPART L ☐ 40 CFR61 SUBPART V ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 1173(j) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 1173(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Fugitive Emissions, Chemical Plant	☐ Rule 466 (10/07/83) ☐ Rule 466.1 (03/16/84) ☐ Rule 467 (03/05/82) ☐ Rule 1173 (02/06/09) ☐ 40 CFR60 SUBPART VV ☐ 40 CFR61 SUBPART V ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 466(f) ☐ Rule 466.1(g) ☐ Rule 467(f) ☐ Rule 1173(j) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 466(e) ☐ Rule 466.1(h) ☐ Rule 467(e) ☐ Rule 1173(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Fugitive Emissions, Natural Gas Processing Plant	☐ Rule 466 (10/07/83) ☐ Rule 466.1 (03/16/84) ☐ Rule 467 (03/05/82) ☐ Rule 1173 (02/06/09) ☐ 40 CFR60 SUBPART KKK ☐ 40 CFR61 SUBPART V ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 466(f) ☐ Rule 466.1(g) ☐ Rule 467(f) ☐ Rule 1173(j) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 466(e) ☐ Rule 466.1(h) ☐ Rule 467(e) ☐ Rule 1173(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Fugitive Emissions, Oil & Gas Production Facility	☐ Rule 466 (10/07/83) ☐ Rule 466.1 (03/16/84) ☐ Rule 467 (03/05/82) ☐ Rule 1173 (02/06/09) ☐ 40 CFR61 SUBPART V ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 466(f) ☐ Rule 466.1(g) ☐ Rule 467(f) ☐ Rule 1173(j) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 466(e) ☐ Rule 466.1(h) ☐ Rule 467(e) ☐ Rule 1173(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Fugitive Emissions, Pipeline Transfer Station	☐ Rule 466 (10/07/83) ☐ Rule 466.1 (03/16/84) ☐ Rule 467 (03/05/82) ☐ Rule 1173 (02/06/09) ☐ 40 CFR61 SUBPART V ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 466(f) ☐ Rule 466.1(g) ☐ Rule 467(f) ☐ Rule 1173(j) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 466(e) ☐ Rule 466.1(h) ☐ Rule 467(e) ☐ Rule 1173(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Furnace, Basic Oxygen Process	☐ 40 CFR60 SUBPART Na	See Applicable Subpart	See Applicable Subpart
☐ Furnace, Electric Arc, For Steel Plants: Constructed After August 17, 1983	☐ 40 CFR60 SUBPART AAa	See Applicable Subpart	See Applicable Subpart
☐ Furnace, Electric Arc, For Steel Plants: Constructed After Oct. 21, 1974, & On Or Before Aug. 17, 1983	☐ 40 CFR60 SUBPART AA	See Applicable Subpart	See Applicable Subpart
☐ Furnace, Glass Melting	☐ Rule 1117 (01/06/84) ☐ 40 CFR60 SUBPART CC	☐ Rule 1117(c), AQMD TM 7.1 or 100.1 See Applicable Subpart	See Applicable Subpart
☐ Furnace, Lead Melting, Automotive Batteries	☐ Rule 1101 (10/07/77) ☐ 40 CFR63 SUBPART X	☐ AQMD TM 6.1 See Applicable Subpart	See Applicable Subpart

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Gasoline Transfer & Dispensing Operation	☐ Rule 461 (06/03/05)	☐ Rule 461(f)	☐ Rule 461(e)(6) & (e)(7)
☐ Glass Manufacturing	See Manufacturing, Glass		
☐ Grain Elevators	☐ 40 CFR60 SUBPART DD	See Applicable Subpart	See Applicable Subpart
☐ Halon-containing Equipment, Use for Technician Training, Testing, Maintenance, Service, Repair, or Disposal	☐ 40 CFR82 SUBPART H	See Applicable Subpart	See Applicable Subpart
☐ Hazardous Waste Combustors	☐ 40 CFR63 SUBPART EEE	See Applicable Subpart	See Applicable Subpart
☐ Heater, Asphalt Pavement	☐ Rule 1120 (08/04/78)	☐ AQMD Visible Emissions, AQMD TM 6.2	☐ Rule 1120(f)
☐ Heaters, Petroleum Refinery Process	☐ Rule 429 (12/21/90) ☐ Rule 431.1 (06/12/98) ☐ Rule 1146 (09/05/08) ☐ 40 CFR60 SUBPART J ☐ 40 CFR63 SUBPART DDDDD	N/A ☐ Rule 431.1(f) ☐ Rule 1146(d) See Applicable Subpart See Applicable Subpart	☐ Rule 429(d) ☐ Rule 431.1(d) & (e) ☐ Rule 1146(c)(6) & (c)(7) See Applicable Subpart See Applicable Subpart
☐ Heaters, Process	See Boilers		
☐ Incinerators	☐ 40 CFR60 SUBPART E ☐ 40 CFR60 SUBPART CCCC	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Inorganic Arsenic Emissions, Arsenic Trioxide & Metallic Arsenic Production Facilities	☐ 40 CFR61 SUBPART P	See Applicable Subpart	See Applicable Subpart
☒ Internal Combustion Engines, Reciprocating	☒ Rule 1110.2 (07/09/10) ☒ 40 CFR60 SUBPART IIII and JJJJ ☒ 40 CFR63 SUBPART ZZZZ	Rule 1110.2(g) See Applicable Subpart See Applicable Subpart	Rule 1110.2(f) See Applicable Subpart See Applicable Subpart
☐ Kiln, Cement Plant	☐ Rule 1112 (06/06/86) ☐ Rule 1112.1 (12/04/09) ☐ 40 CFR60 SUBPART F	N/A N/A See Applicable Subpart	N/A N/A See Applicable Subpart

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Landfills	☐ Rule 1150 (10/15/82) ☐ Rule 1150.1 (03/17/00) ☐ 40 CFR60 SUBPART WWW ☐ 40 CFR63 SUBPART AAAA	☐ Rule 1150.1(j) See Applicable Subpart See Applicable Subpart	☐ Rule 1150.1(e) & (f) See Applicable Subpart See Applicable Subpart
☐ Lead Acid Battery Manufacturing Plants	See Manufacturing, Lead Acid Battery		
☐ Lead Electroplating Operation	☐ Rule 1426 (05/02/03)		☐ Rule 1426(e)
☐ Manufacturing, Asphalt Processing & Asphalt Roofing	☐ Rule 470 (05/07/76) ☐ Rule 1108 (02/01/85) ☐ Rule 1108.1 (11/04/83) ☐ 40 CFR60 SUBPART UU ☐ 40 CFR63 SUBPART LLLLL	N/A ☐ Rule 1108(b) ☐ Rule 1108.1 (b) See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Brick & Structural Clay Products	☐ 40 CFR63 SUBPART JJJJJ	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Cement	☐ Rule 1156 (03/06/09)	☐ Rule 1156(g)	☐ Rule 1156(f)
☐ Manufacturing, Clay Ceramics	☐ 40 CFR63 SUBPART KKKKK	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Coatings & Ink (SIC Code 2851)	☐ Rule 1141.1 (11/17/00) ☐ 40 CFR63 SUBPART HHHHH	N/A See Applicable Subpart	☐ Rule 1141.1(c) See Applicable Subpart
☐ Manufacturing, Consumer Product	☐ Title 17 CCR 94500		
☐ Manufacturing, Food Product	☐ Rule 1131 (06/06/03)	☐ Rule 1131(e)	☐ Rule 1131(d)
☐ Manufacturing, Friction Materials	☐ 40 CFR63 SUBPART QQQQQ	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Glass	☐ Rule 1117 (01/06/84) ☐ 40 CFR60 SUBPART CC ☐ 40 CFR61 SUBPART N	☐ Rule 1117(c), AQMD TM 7.1 or 100.1 See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Hydrochloric Acid	☐ 40 CFR63 SUBPART NNNNN	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Lead-Acid Battery	☐ 40 CFR60 SUBPART KK	See Applicable Subpart	See Applicable Subpart

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☐ Manufacturing, Lime	☐ 40 CFR63 SUBPART AAAAA	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Magnetic Tape Industry	☐ 40 CFR60 SUBPART SSS ☐ 40 CFR63 SUBPART EE	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Miscellaneous Organic Chemical	☐ 40 CFR63 SUBPART FFFF	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Nitric Acid	☐ Rule 218 (05/14/99) ☐ Rule 1159 (12/06/85) ☐ 40 CFR60 SUBPART G	☐ AQMD TM 100.1 ☐ AQMD TM 7.1 or 100.1 See Applicable Subpart	☐ Rule 218(e) & (f) See Applicable Subpart
☐ Manufacturing, Plywood & Composite Wood Products	☐ Rule 1137 (02/01/02) ☐ 40 CFR63 SUBPART DDDD	N/A See Applicable Subpart	☐ Rule 1137(e) See Applicable Subpart
☐ Manufacturing, Polymer Industry	☐ 40 CFR60 SUBPART DDD ☐ 40 CFR63 SUBPART W ☐ 40 CFR63 SUBPART J	See Applicable Subpart See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Polymeric Cellular Foam	☐ Rule 1175 (09/07/07) ☐ 40 CFR63 SUBPART UUUU	☐ Rule 1175(f) See Applicable Subpart	☐ Rule 1175(e) See Applicable Subpart
☐ Manufacturing, Products Containing Halon Blends	☐ 40 CFR82 SUBPART H	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Products Containing Organic Solvents	☐ Rule 443.1 (12/05/86)	N/A	N/A
☐ Manufacturing, Products Containing Ozone Depleting Substances (ODS)	☐ 40 CFR82 SUBPART A ☐ 40 CFR82 SUBPART E	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Reinforced Plastic Composites	☐ 40 CFR63 SUBPART WWWW	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Refractory Products	☐ 40 CFR63 SUBPART SSSSS	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Resin	☐ Rule 1141 (11/17/00) ☐ 40 CFR63 SUBPART W	☐ Rule 1141(d) See Applicable Subpart	☐ Rule 1141(c) See Applicable Subpart
☐ Manufacturing, Rubber Tire	☐ 40 CFR63 SUBPART XXXX	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Semiconductors	☐ Rule 109 (05/02/03) ☐ Rule 1164 (01/13/95) ☐ Rule 1171 (05/01/09) ☐ 40 CFR63 SUBPART BBBB	☐ Rule 109(g) ☐ Rule 1164(e) ☐ Rule 1171(e) See Applicable Subpart	☐ Rule 109(c) ☐ Rule 1164(c)(5) ☐ Rule 1171(c)(6) See Applicable Subpart
☐ Manufacturing, Solvent	☐ Rule 443 (05/07/76)	N/A	N/A

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Manufacturing, Sulfuric Acid	☐ Rule 469 (02/13/81) ☐ 40 CFR60 SUBPART H ☐ 40 CFR60 SUBPART Cd	☐ AQMD TM 6.1 or 6.2 See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Surfactant	☐ Rule 1141.2 (01/11/02)	☐ Rule 1141.2(e) ☐ AQMD TM 25.1	
☐ Manufacturing, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	☐ 40 CFR60 SUBPART III ☐ 40 CFR60 SUBPART NNN	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Manufacturing, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	☐ 40 CFR60 SUBPART RRR	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Vinyl Chloride	☐ 40 CFR61 SUBPART F	See Applicable Subpart	See Applicable Subpart
☐ Manufacturing, Water Heaters	☐ Rule 1121 (09/03/04)	N/A	N/A
☐ Manufacturing, Wool Fiberglass Insulation	☐ 40 CFR60 SUBPART PPP	See Applicable Subpart	See Applicable Subpart
☐ Manure Processing Operations	☐ Rule 1127 (08/06/04)	☐ Rule 1127(h)	☐ Rule 1127(g)
☐ Marine Tank Vessel Operations	☐ Rule 1142 (07/19/91) ☐ Rule 1173 (02/06/09) ☐ 40 CFR63 SUBPART Y	☐ Rule 1142(e) ☐ Rule 1173(j) See Applicable Subpart	☐ Rule 1142(h) ☐ Rule 1173(i) See Applicable Subpart
☐ Mercury Emissions	☐ 40 CFR61 SUBPART E ☐ 40 CFR63 SUBPART IIII	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Motor Vehicle Air Conditioners with Ozone Depleting Substances (ODS): Repair, Service, Manufacturing, Maintenance, or Disposal	☐ 40 CFR82 SUBPART B ☐ 40 CFR82 SUBPART F	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Municipal Waste Combustors	☐ 40 CFR60 SUBPART Cb ☐ 40 CFR60 SUBPART Ea ☐ 40 CFR60 SUBPART Eb	See Applicable Subpart See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart See Applicable Subpart
☒ Negative Air Machines/HEPA, Asbestos	☒ 40 CFR61 SUBPART M	See Applicable Subpart	See Applicable Subpart
☐ Nickel Electroplating Operation	☐ Rule 1426 (05/02/03)		☐ Rule 1426(e)
☐ Nonmetallic Mineral Processing Plants	☐ Rule 404 (02/07/86) ☐ Rule 405 (02/07/86) ☐ 40 CFR60 SUBPART OOO	☐ AQMD TM 5.1, 5.2, or 5.3 ☐ AQMD TM 5.1, 5.2, or 5.3 See Applicable Subpart	See Applicable Subpart
☐ Off-site Waste and Recovery Operation	☐ 40 CFR63 SUBPART DD	See Applicable Subpart	See Applicable Subpart

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Oil and Gas Well Operation	☐ Rule 1148 (11/05/82) ☐ Rule 1148.1 (03/05/04)	☐ AQMD TM 25.1 ☐ Rule 1148.1 (g)	☐ Rule 1148.1 (f)
☐ Onshore Natural Gas Processing, SO2 Emissions	☐ 40 CFR60 SUBPART LLL	See Applicable Subpart	See Applicable Subpart
☐ Open Fires	☐ Rule 444 (11/07/08)		
☐ Open Storage, Petroleum Coke	☐ Rule 403 (06/03/05) ☐ Rule 403.1 (04/02/04) ☐ Rule 1158 (06/11/99)	☐ Rule 403(d)(4) ☐ Rule 1158(h)	☐ Rule 403(f) ☐ Rule 403.1(h) ☐ Rule 1158(j)
☐ Open Storage	☐ Rule 403 (06/03/05) ☐ Rule 403.1 (04/02/04)	☐ Rule 403(d)(4)	☐ Rule 403(f) ☐ Rule 403.1(h)
☐ Outer Continental Shelf Platform	☐ Rule 1183 (03/12/93) ☐ 40 CFR55	☐ 40 CFR55 See Applicable Subpart	☐ 40 CFR55 See Applicable Subpart
☐ Oven, Commercial Bakery	☐ Rule 1153 (01/13/95)	☐ Rule 1153(h)	☐ Rule 1153(g)
☐ Oven, Petroleum Coke	☐ Rule 477 (04/03/81) ☐ 40 CFR63 SUBPART L ☐ 40 CFR63 SUBPART CCCCC	☐ AQMD Visible Emissions, AQMD TM 5.1, 5.2, or 5.3 See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Ozone Depleting Substances (ODS) or Alternative ODS, Use	☐ 40 CFR82 Subpart G	See Applicable Subpart	See Applicable Subpart

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Petroleum Refineries	☐ Rule 218 (05/14/99) ☐ Rule 465 (08/13/99) ☐ Rule 468 (10/08/76) ☐ Rule 469 (02/13/81) ☐ Rule 1118 (11/04/05) ☐ Rule 1123 (12/07/90) ☐ Rule 1189 (01/21/00) ☐ 40 CFR60 SUBPART J ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART CC ☐ 40 CFR63 SUBPART EEEE ☐ 40 CFR63 SUBPART GGGG ☐ Title 13 CCR 2250	☐ AQMD TM 100.1 ☐ AQMD TM 6.1 or 6.2 ☐ AQMD TM 6.1 or 6.2 ☐ Rule 1118(j) N/A ☐ Rule 1189(f) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 218(e) & (f) ☐ Rule 1118(f), (g), (h), & (i) ☐ Rule 1123(c) ☐ Rule 1189(e) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Petroleum Refineries, Fugitive Emissions	☐ Rule 1173 (02/06/09) ☐ Rule 466 (10/07/83) ☐ Rule 466.1 (03/16/84) ☐ Rule 467 (03/05/82) ☐ 40 CFR60 SUBPART GGG ☐ 40 CFR61 SUBPART V ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC	☐ Rule 1173(j) ☐ Rule 466(f) ☐ Rule 466.1(g) ☐ Rule 467(f) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 1173(i) ☐ Rule 466(e) ☐ Rule 466.1(h) ☐ Rule 467(e) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Petroleum Refineries, Storage Tanks	☐ Rule 463 (05/06/05) ☐ Rule 1178 (04/07/06) ☐ 40 CFR60 SUBPART K ☐ 40 CFR60 SUBPART Ka ☐ 40 CFR60 SUBPART Kb ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART R ☐ 40 CFR63 SUBPART CC ☐ 40 CFR63 SUBPART EEEE	☐ Rule 463(g) ☐ Rule 1178(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 463(e)(5) ☐ Rule 1178(f) & (h) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Petroleum Refineries, Wastewater Systems	☐ Rule 1176 (09/13/96) ☐ Rule 464 (12/07/90) ☐ 40 CFR60 SUBPART QQQ ☐ 40 CFR63 SUBPART CC	☐ Rule 1176(h) N/A See Applicable Subpart See Applicable Subpart	☐ Rule 1176(f) & (g) See Applicable Subpart See Applicable Subpart
☐ Pharmaceuticals & Cosmetics Manufacturing	☐ Rule 1103 (03/12/99) ☐ 40 CFR63 SUBPART GGG	☐ Rule 1103(f) See Applicable Subpart	☐ Rule 1103(e) See Applicable Subpart
☐ Polyester Resin Operation	☐ Rule 109 (05/02/03) ☐ Rule 1162 (07/08/05) ☐ Rule 1171 (05/01/09)	☐ Rule 109(g) ☐ Rule 1162(f) ☐ Rule 1171(e)	☐ Rule 109(c) ☐ Rule 1162(e) ☐ Rule 1171(c)(6)
☐ Primary Magnesium Refining	☐ 40 CFR63 SUBPART TTTT	See Applicable Subpart	See Applicable Subpart
☐ Printing Press	See Coating Operations		
☐ Publicly Owned Treatment Works Operations	☐ Rule 1179 (03/06/92) ☐ 40 CFR60 SUBPART O	☐ Rule 1179(e) See Applicable Subpart	☐ Rule 1179(c) & (d) See Applicable Subpart
☐ Pumps	See Fugitive Emissions or Petroleum Refineries, Fugitive Emissions		

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Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Recycling & Recovery Equipment for Ozone Depleting Substances (ODS),	☐ 40 CFR82 SUBPART F	See Applicable Subpart	See Applicable Subpart
☐ Refrigerant Reclaimers for Ozone Depleting Substances (ODS)	☐ 40 CFR82 SUBPART F	See Applicable Subpart	See Applicable Subpart
☐ Rendering Plant	☐ Rule 472 (05/07/76)	N/A	☐ Rule 472(b)
☐ Rock Crushing	See Nonmetallic Mineral Processing Plants		
☐ Secondary Aluminum Production	☐ 40 CFR63 SUBPART LL	See Applicable Subpart	See Applicable Subpart
☐ Semiconductor Manufacturing	See Manufacturing, Semiconductors		
☐ Sewage Treatment Plants	See Publicly Owned Treatment Works Operation		
☐ Site Remediation	☐ 40 CFR63 SUBPART GGGGG	See Applicable Subpart	See Applicable Subpart
☐ Smelting, Primary Copper	☐ 40 CFR63 SUBPART QQQ	See Applicable Subpart	See Applicable Subpart
☐ Smelting, Secondary Lead	☐ 40 CFR60 SUBPART L ☐ 40 CFR63 SUBPART X	See Applicable Subpart See Applicable Subpart	See Applicable Subpart See Applicable Subpart
☐ Soil Decontamination / Excavation	☐ Rule 1166 (05/11/01) ☐ 40 CFR63 SUBPART GGGGG	☐ Rule 1166(e) See Applicable Subpart	☐ Rule 1166(c)(1)(C) See Applicable Subpart
☐ Spray Booth	See Coating Operations		
☐ Sterilizer, Ethylene Oxide	☐ 40 CFR63 SUBPART O	See Applicable Subpart	See Applicable Subpart
☐ Storage Tank, Degassing Operation	☐ Rule 1149 (07/14/95) ☐ 40 CFR63 SUBPART CC	See Applicable Subpart	See Applicable Subpart

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Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Storage Tank, Greater Than 19,815 Gallon Capacity	☐ Rule 463 (05/06/05) ☐ Rule 1178 (04/07/06) ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR60 SUBPART K ☐ 40 CFR60 SUBPART Ka ☐ 40 CFR60 SUBPART Kb ☐ 40 CFR63 SUBPART R ☐ 40CFR63 SUBPART BBBB ☐ 40 CFR63 SUBPART CC	☐ Rule 463(g) ☐ Rule 1178(i) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 463(e)(5) ☐ Rule 1178(h) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Synthetic Fiber Production Facilities	☐ 40 CFR60 SUBPART HHH	See Applicable Subpart	See Applicable Subpart
☐ Taconite Iron Ore Processing Facilities	☐ 40 CFR63 SUBPART RRRRR	See Applicable Subpart	See Applicable Subpart
☒ Turbine, Stationary Gas-Fired	☐ Rule 1134 (08/08/97) ☒ Rule 475 (08/07/78) ☐ 40 CFR60 SUBPART GG ☒ 40 CFR60 SUBPART KKKK ☐ 40 CFR63 SUBPART YYYY	☐ Rule 1134(e) & (g) ☐ AQMD TM 5.1, 5.2, or 5.3 See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 1134(d) & (f) See Applicable Subpart See Applicable Subpart See Applicable Subpart
☐ Turbine, Stationary Oil-Fired	☐ 40 CFR63 SUBPART YYYY	See Applicable Subpart	See Applicable Subpart
☐ Valves	See Fugitive Emissions or Petroleum Refineries, Fugitive Emissions		
☐ Vessel, Refinery Process	☐ Rule 1123 (12/07/90)	N/A	☐ Rule 1123(c)
☐ Vessels	See Petroleum Refineries, Fugitive Emissions		

KEY ABBREVIATIONS:

Reg. = AQMD Regulation
Rule = AQMD Rule

App. = Appendix
AQMD TM = AQMD Test Method

CFR = Code of Federal Regulations
CCR = California Code of Regulations

Section II - Applicable Requirements, Test Methods, & MRR Requirements

Equipment/Process	Applicable Requirement	Test Method	MRR Requirement
☐ Wastewater, Chemical Plant	☐ Rule 464 (12/07/90) ☐ Rule 1176 (09/13/96) ☐ 40 CFR63 SUBPART F ☐ 40 CFR63 SUBPART G ☐ 40 CFR63 SUBPART H ☐ 40 CFR63 SUBPART I ☐ 40 CFR63 SUBPART CC	N/A ☐ Rule 1176(h) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart	☐ Rule 1176(f) & (g) See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart See Applicable Subpart
☒ Wastewater Treatment, Other	☒ Rule 464 (12/07/90) ☐ Rule 1176 (09/13/96)	N/A ☐ Rule 1176(h)	☐ Rule 1176(f) & (g)
☐ Woodworking Operations	☐ Rule 1137 (02/01/02)	N/A	☐ Rule 1137(e)

KEY ABBREVIATIONS:

Reg. = AQMD Regulation
Rule = AQMD Rule

App. = Appendix
AQMD TM = AQMD Test Method

CFR = Code of Federal Regulations
CCR = California Code of Regulations

Section III - Supplemental Identification of Specific Requirements

Complete this section only if there is a specific requirement (i.e., rule reference, test method, or MRR requirement) that is:

1. Listed for a specific type of equipment or process in Section II of this form & **DOES NOT** pertain to a specific device at your facility*; OR,
2. Is **NOT** Listed for a specific type of equipment or process in Section II of this form but it **IS** applicable to a specific device at your facility.

NOTES:

1. For any specific requirement, test method, or MRR requirement that is identified as "Remove," attach additional sheets to explain the reasons why the specific requirement does not pertain to the device listed.
2. All boxes that are checked in Section II and any additional requirements identified in this section as "Add" will be used to determine the facility's compliance status. This information will be used to verify the certification statements made on Form 500-A2.
3. Do not use this section to identify equipment that is exempt from specific rule requirements. Your equipment is automatically considered to be in compliance with the rule that specifically exempts the equipment from those requirements.
4. Listing any requirement that does not apply to a specific piece of equipment in this section will not provide the facility with a permit shield unless one is specifically requested by completing Form 500-D and approved by the AQMD.

* If this section is completed as part of the initial Title V application & there is no device number assigned, refer to the existing permit or application number in this column.

[illegible]

Section IV - SIP-Approved Rules That Are Not The Most Current AQMD Rules

Check off each SIP-Approved Rule as it applies to the facility. Use the blanks at the end of this form to fill-in new items.

SIP - Approved Rule	Adoption/ Amendment Date	Check (✓) If Applies	SIP - Approved Rule	Adoption/ Amendment Date	Check (✓) If Applies
401	03/02/84	☒			☐
431.2	05/04/90	☐			☐
461	6/3/05	☐			☐
466.1	05/02/80	☐			☐
469	04/07/76	☐			☐
475	10/08/76	☒			☐
1112	01/06/84	☐			☐
1112.1	2/7/86	☐			☐
1113	11/08/96	☒			☐
1117	1/6/83	☐			☐
1122	07/11/97	☐			☐
1132	03/05/04	☐			☐
1140	02/01/80	☒			☐
1146	11/17/00	☒			☐
1146.1	5/13/94	☐			☐
1151	12/11/98	☐			☐
1158	6/11/99	☐			☐
1162	11/17/00	☐			☐
1166	07/14/95	☐			☐
1171	11/07/03	☒			☐
1175	05/13/94	☐			☐
1186	09/10/99	☐			☐

Section V - AQMD Rules That Are Not SIP-Approved (Continued on Following Page)

Check off each AQMD Rule as it applies to the facility. Use the blanks at the end of this form to fill-in new items.

Non SIP - Approved Rule	Adoption/ Amendment Date	Check (✓) If Applies	Non SIP - Approved Rule	Adoption/ Amendment Date	Check (✓) If Applies
53 Los Angeles Co.	N/A	☒	1192	06/16/00	☐
53 Orange Co.	N/A	☐	1193	07/09/10	☐
53 Riverside Co.	N/A	☐	1194	10/20/00	☐
53 San Bernardino Co.	N/A	☐	1195	05/05/06	☐
53A San Bernardino Co.	N/A	☐	1196	06/06/08	☐
402	05/07/76	☒	1401	09/10/10	☒
429	12/21/90	☐	1401.1	11/04/05	☐
430	07/12/96	☒	1402	03/04/05	☐
441	05/07/76	☐	1403	10/05/07	☐
473	05/07/76	☐	1404	04/06/90	☐
477	04/03/81	☐	1405	01/04/91	☐
480	10/07/77	☐	1406	07/08/94	☐
1109	08/05/88	☐	1407	07/08/94	☐
1110.2	07/09/10	☒	1411	03/01/91	☐
1116.1	10/20/78	☐	1414	05/03/91	☐
1127	08/06/04	☐	1415	10/14/94	☒
1143	07/09/10	☐	1418	09/10/99	☐
1147	12/05/08	☐	1420	09/11/92	☐
1148.1	03/05/04	☐	1420.1	11/05/10	☐
1150	10/15/82	☐	1421	12/06/02	☐
1155	12/04/09	☐	1425	03/16/01	☐
1156	03/06/09	☐	1426	05/02/03	☐
1157	09/08/06	☐			☐
1163	06/07/85	☐			☐
1170	05/06/88	☐			☐
1183	03/12/93	☐			☐
1186.1	01/09/09	☐			☐
1191	06/16/00	☐			☐

Section V - AQMD Rules That Are Not SIP-Approved (Continued on Following Page)

Check off each AQMD Rule as it applies to the facility. Use the blanks at the end of this form to fill-in new items.

Non SIP - Approved Rule	Adoption/ Amendment Date	Check (✓) If Applies	Non SIP - Approved Rule	Adoption/ Amendment Date	Check (✓) If Applies
1469	12/05/08	☐	2009.1	05/11/01	☐
1469.1	03/04/05	☐	2501	05/09/97	☐
1470	06/01/07	☒	2506	12/10/99	☐
1472	03/07/08	☐			☐
2009	01/07/05	☒			☐
		☐			☐
		☐			☐
		☐			☐
		☐			☐
		☐			☐



South Coast Air Quality Management District

Form 400 - XPP**Express Permit Processing Request**

Form 400-A, Form 400-CEQA and one or more 400-E-xx form(s) must accompany all submittals.

Mail To:

SCAQMD

P.O. Box 4944

Diamond Bar, CA 91765-0944

Tel: (909) 396-3385

www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator To Appear On The Permit):

AES Alamitos, LLC

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):

115394

Section B - Equipment Location Address3. ☒ Fixed Location ☐ Various Location

(For equipment operated at various locations, provide address of initial site.)

690 N. Studebaker Rd.

Street Address

Long Beach, CA 90803

City

State

Zip

Charlene He Environmental Managr

Contact Name

Title

(562) 493-7835

Phone #

Ext.

Fax #

charlene.he@aes.com

E-Mail

Section C - Permit Mailing Address

4. Permit and Correspondence Information:

☒ Check here if same as equipment location address

690 N. Studebaker Rd.

Address

Long Beach, CA 90803

City

State

Zip

Charlene He Environmental Managr

Contact Name

Title

(562) 493-7835

Phone #

Ext.

Fax #

charlene.he@aes.com

E-Mail

Section D - Authorization/Signature

I understand that the Expedited Permit Processing fees must be submitted at the time of application submittal, and that the application may be subject to additional fees per Rule 301. I understand that requests for Express Permit Processing neither guarantees action by any specific date nor does it guarantee permit approval; that Express Permit Processing is subject to availability of qualified staff; and that once Express Permit Processing has commenced, the expedited fees will not be refunded. I hereby certify that all information contained herein and information submitted with the application are true and correct.

5. Signature of Responsible Official:

6. Title of Responsible Official:

Vice President, AES Southland Energy

7. Print Name of Responsible Official:

Weikko Wirta

8. Date:

04/18/2022

9. Phone #:

(714) 374-1421

10. Fax #:

AQMD USE ONLY		APPLICATION TRACKING #		TYPE B C	EQUIPMENT CATEGORY CODE		FEE SCHEDULE: \$		VALIDATION	
ENG. DATE	A	R	ENG. DATE	A	R	CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT \$	TRACKING #

APPENDIX B – EQUIPMENT SPECIFICATIONS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2022 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT

OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Caterpillar Inc.
(U.S. Manufacturer or Importer)
Certificate Number: NCPXL18.1NYS-003

Effective Date:

06/01/2021

Expiration Date:

12/31/2022

Byron J. Bunker, Division Director
Compliance Division

Issue Date:

06/01/2021

Revision Date:

N/A

Model Year: 2022

Manufacturer Type: Original Engine Manufacturer

Engine Family: NCPXL18.1NYS

Mobile/Stationary Indicator: Stationary

Emissions Power Category: 560<kW<=2237

Fuel Type: Diesel

After Treatment Devices: No After Treatment Devices Installed

Non-after Treatment Devices: Electronic Control, Engine Design Modification

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 60.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

SD750 | 18.1L | 750 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC | INDUSTRIAL
POWER

Standby Power Rating

750 kW, 938 kVA, 60 Hz

Prime Power Rating*

675 kW, 844 kVA, 60 Hz



*Assembled in the USA using domestic and foreign parts

*EPA Certified Prime ratings are not available in the US or its Territories



Image used for illustration purposes only

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.



UL2200, UL6200, UL1236, UL489, UL142



CSA C22.2, B149



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



ISO 3046, 7637, 8528, 9001



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41

Powering Ahead

For over 50 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

STANDARD FEATURES**ENGINE SYSTEM**

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Critical Silencer (Enclosed Units Only)
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Oil Temperature Indication and Alarm

Fuel System

- Primary Fuel Filter
- Secondary Fuel Filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- 12 Leads (3-Phase, Non 600V)
- Class H Insulation Material
- Vented Rotor
- 2/3 Pitch
- Skewed Stator
- Auxiliary Voltage Regulator Power Winding
- Amortisseur Winding
- Permanent Magnet Excitation
- Sealed Bearings
- Full Load Capacity Alternator
- Protective Thermal Switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping (Enclosed Units Only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- Gasketed Doors
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

FUEL TANKS (If Selected)

- UL 142/ULC S601 Tank
- Double Wall
- Vents
- Sloped Top
- Sloped Bottom
- Factory Pressure Tested (2 psi)
- Rupture Basin Alarm
- Fuel Level
- Check Valve in Supply and Return Lines
- RhinoCoat™ - Textured Polyester Powder Coat Paint

CONTROL SYSTEM**Power Zone® Pro Sync Controller****Program Functions**

- NFPA 110 Level 1 Compliant
- Engine Protective Functions
- Alternator Protective Functions
- Digital Engine Governor Control
- Digital Voltage Regulator
- Multiple Programmable Inputs and Outputs
- Remote Display Capability
- Remote Communication via Modbus® RTU, Modbus TCP/IP, and Ethernet 10/100
- Alarm and Event Logging with Real Time Stamping
- Expandable Analog and Digital Inputs and Outputs

- Remote Wireless Software Update Capable
- Wi-Fi®, Bluetooth®, BMS and Remote Telemetry
- Built-In Programmable Logic Eliminates the Need for External Controllers Under Most Conditions
- Ethernet Based Communications Between Generators
- Programmable I/O Channel Properties
- Built-In Diagnostics
- On-Board Manual Storage

Protections

- Low Oil Pressure
- Low Coolant Level
- High/Low Coolant Temperature
- Sensor Failure
- Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Over Load
- High/Low Battery Voltage
- Battery Charger Current
- Phase to Phase and Phase to Neutral Short Circuits (I²T Algorithm)

7 Inch Color Touch Screen Display

- Resistive Color Touch Screen
- Sunlight Readable (1400 NITS)
- Easily Identifiable Icons
- Multi-Lingual
- On Screen Editable Parameters
- Key Function Monitoring
- Three Phase Voltage, Amperage, kW, kVA, and kVAr
- Selectable Line to Line or Line to Neutral Measurements
- Frequency
- Engine Speed
- Engine Coolant Temperature
- Engine Oil Pressure
- Engine Oil Temperature
- Battery Voltage
- Hourmeter
- Warning and Alarm Indication
- Diagnostics
- Maintenance Events/Information

CONFIGURABLE OPTIONS**ENGINE SYSTEM**

- Engine Coolant Heater
- Oil Heater
- Critical Grade Silencers (Open Set Only)
- Level 1 Fan and Belt Guards (Enclosed Units Only)
- Radiator Stone Guard (Open Set Only)

ELECTRICAL SYSTEM

- 10A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

GENERATOR SET

- 8 Position Load Center
- Extended Factory Testing

ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Door Open Alarm Switch
- Enclosure Heater (with Motorized Dampers Only)

CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- Ground Fault Annunciator
- 10A Engine Run Relay
- 120V GFCI and 240V Outlets
- Oil Temperature Indication and Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- Damper Alarm Contacts (with Motorized Dampers Only)
- 100 dB Alarm Horn

WARRANTY (Standby Gensets Only)

- 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

ENGINEERED OPTIONS**ENGINE SYSTEM**

- Fluid Containment Pan
- Coolant Heater Ball Valves

ALTERNATOR SYSTEM

- 3rd Breaker Systems

GENERATOR SET

- Special Testing
- Battery Box

FUEL TANKS

- Overfill Protection Valve
- UL 2085 Tank
- Stainless Steel Tank
- Special Fuel Tanks
- Vent Extensions
- 5 Gallon Spill Containment Box
- Dealer Supplied AHJ Requirements

SD750 | 18.1L | 750 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency



APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Perkins
Cylinder #	6
Type	In-Line
Displacement - In ³ (L)	543 (18.1)
Bore - in (mm)	5.71 (145)
Stroke - in (mm)	7.20 (183)
Compression Ratio	14.0:1
Intake Air Method	Turbocharged/Aftercooled
Number of Main Bearings	7
Cylinder Head Type	Cast Iron
Piston Type	Aluminum

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear Driven
Oil Filter Type	Full Flow Spin-On Cartridge
Crankcase Capacity - qt (L)	71.8 (68)

Cooling System

Cooling System Type	Pressurized Closed Recovery
Fan Type	Pusher
Fan Speed - RPM	1,440
Fan Diameter - in (mm)	45 (1,143)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel #2
Fuel Filtering (Microns)	10 Primary and 2 Secondary
Injector Type	EUI
Fuel Supply Line - in (mm)	84 (2,134)
Fuel Return Line - in (mm)	84 (2,134)

Engine Electrical System

System Voltage	24 VDC
Battery Charger Alternator	50 A
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	K0820124Y22
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Permanent Magnet
Bearings	Sealed Ball
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

SD750 | 18.1L | 750 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS - DIESEL

		Standby
Three-Phase 120/208 VAC @0.8pf	750 kW	Amps: 2,605
Three-Phase 120/240 VAC @0.8pf	750 kW	Amps: 2,258
Three-Phase 277/480 VAC @0.8pf	750 kW	Amps: 1,129
Three-Phase 346/600 VAC @0.8pf	750 kW	Amps: 903

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip			
277/480 VAC	30%	208/240 VAC	30%
K0820124Y22	2,100	K0820124Y22	1,500
K0912124Y22	2,700	K0912124Y22	2,000
K1000124Y22	2,700	K1000124Y22	1,900

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)	Diesel - gph (Lph)	
	Percent Load	Standby
12 (3.7)	25%	14.3 (54.1)
	50%	25.6 (97.0)
Total Fuel Pump Flow (Combustion + Return) gph (Lph)	75%	38.0 (143.8)
111 (420)	100%	49.7 (188.0)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (Fan Air Flow Across Radiator) - Open Set	scfm (m ³ /min)	27,376 (775.2)
Coolant Flow	gpm (Lpm)	128 (485)
Coolant System Capacity	gal (L)	27.3 (103.3)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199280SSD	
Maximum Additional Radiator Backpressure	in H ₂ O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power - scfm (m ³ /min)	2,507 (71)

ENGINE

		Standby
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	1,112
Piston Speed	ft/min (m/min)	2,160 (658)
BMEP	psi (kPa)	443 (3,053)

EXHAUST

		Standby
Exhaust Flow (Rated Output)	scfm (m ³ /min)	6,397 (181)
Maximum Exhaust Backpressure (Post Silencer)	inHg (kPa)	2.95 (9.99)
Exhaust Temperature (Rated Output - Post Silencer)	°F (°C)	918 (492)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

Standby - See Bulletin 0187500SSB

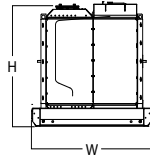
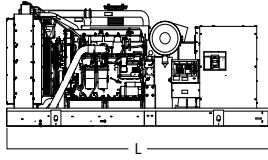
Prime - See Bulletin 0187510SSB

SD750 | 18.1L | 750 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

DIMENSIONS AND WEIGHTS*



OPEN SET

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)		Weight - lbs (kg)
No Tank	—	154.4 (3,923) x 71.0 (1,803) x 80.3 (2,040)		10,468 - 10,913 (4,748 - 4,950)
6	334 (1,264)	158.5 (4,025) x 71.0 (1,803) x 94.3 (2,396)		12,143 - 12,588 (5,508 - 5,710)
20	1,001 (3,789)	158.5 (4,025) x 71.0 (1,803) x 116.3 (2,954)		13,068 - 13,513 (5,927 - 6,129)
20	1,001 (3,789)	228.0 (5,791) x 71.0 (1,803) x 105.3 (2,675)		13,618 - 14,063 (6,177 - 6,379)
40	2,002 (7,578)	290.0 (7,366) x 71.0 (1,803) x 116.3 (2,954)		15,318 - 15,763 (6,948 - 7,150)

WEATHER PROTECTED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight (Enclosure Only) - lbs (kg)	
			Steel	Aluminum
No Tank	—	207.4 (5,268) x 71.0 (1,803) x 80.0 (2,032)		
6	334 (1,264)	207.4 (5,268) x 71.0 (1,803) x 94.0 (2,388)		
20	1,001 (3,789)	207.4 (5,268) x 71.0 (1,803) x 116.0 (2,946)	2,467 (967)	1,380 (474)
20	1,001 (3,789)	228.0 (5,791) x 71.0 (1,803) x 105.0 (2,667)		
40	2,002 (7,578)	290.0 (7,366) x 71.0 (1,803) x 116.0 (2,946)		

LEVEL 1 SOUND ATTENUATED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight (Enclosure Only) - lbs (kg)	
			Steel	Aluminum
No Tank	—	247.5 (6,285) x 71.0 (1,803) x 80.0 (2,032)		
6	334 (1,264)	247.5 (6,285) x 71.0 (1,803) x 94.0 (2,388)		
20	1,001 (3,789)	247.5 (6,285) x 71.0 (1,803) x 116.0 (2,946)	3,472 (1,423)	1,812 (670)
20	1,001 (3,789)	247.5 (6,285) x 71.0 (1,803) x 105.0 (2,667)		
40	2,002 (7,578)	290.0 (7,366) x 71.0 (1,803) x 116.0 (2,946)		

LEVEL 2 SOUND ATTENUATED ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight (Enclosure Only) - lbs (kg)	
			Steel	Aluminum
No Tank	—	207.4 (5,268) x 71.0 (1,803) x 114.1 (2,899)		
6	334 (1,264)	207.4 (5,268) x 71.0 (1,803) x 128.1 (3,255)		
20	1,001 (3,789)	207.4 (5,268) x 71.0 (1,803) x 150.1 (3,813)	3,809 (1,576)	1,955 (735)
20	1,001 (3,789)	228.0 (5,791) x 71.0 (1,803) x 139.1 (3,534)		
40	2,002 (7,578)	290.0 (7,366) x 71.0 (1,803) x 150.1 (3,813)		

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.

STATEMENT OF EXHAUST EMISSIONS

2022 Perkins Diesel Fueled Generator

The measured emissions values provided here are proprietary to Generac and it's authorized dealers. This information may only be disseminated upon request to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc.. The data provided shall not be meant to include information made public by Generac.

Generator Model:	SD/MD750	EPA Certificate Number:	NCPXL18.1NYS-003
kW _e Rating:	750	CARB Certificate Number:	Not Applicable
Engine Family:	NCPXL18.1NYS	SCAQMD CEP Number:	618807
Engine Model:	2806C-E18TTAG7	Emission Standard Category:	Tier 2
Rated Engine Power (BHP)*:	1,112	Certification Type:	Stationary Emergency CI (40 CFR Part 60 Subpart IIII)
Fuel Consumption (gal/hr)*:	54.3		
Aspiration:	Turbocharged/Aftercooled		
Rated RPM:	1,800		

*Engine power and fuel consumption are declared by the engine manufacturer of record and the U.S EPA.

EMISSIONS BASED ON ENGINE POWER OF SPECIFIC ENGINE MODEL

These Values Are Actual Composite Weighted Exhaust Emissions Results Over the EPA 5-Mode Test Cycle

CO	NOx + NMHC	PM	
0.90	5.60	0.05	Grams/kW-hr
0.67	4.18	0.07	Grams/bhp-hr

These values are 100% load data exhaust emissions results.

CO	NOx + NMHC	PM	
0.22	5.42	0.03	Grams/kW-hr
0.16	4.04	0.02	Grams/bhp-hr

- The stated values are actual exhaust emission test measurements obtained from an engine representative of the type described above.
- Values based on 5-Mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA protocol, which is typically accepted by SCAQMD and other regional authorities.
- No emissions values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems, Inc. reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and local agencies must be consulted by the permit application/ equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems Inc. cannot be construed as a guarantee of installability of the generating set.

**Application & Performance Warranty Data****Project Information**

Site Location: California
Project Name: SD750 18.1 Liter
Application: Standby Power
Number Of Engines: 4
Operating Hours per Year: 200

Engine Specifications

Engine Manufacturer: Generac
Model Number: SD750 18.1 L
Rated Speed: 1800 RPM
Type of Fuel: Ultra-Low Sulfur Diesel (ULSD)
Type of Lube Oil: 1 wt% sulfated ash or less
Lube Oil Consumption: 0.1 % Fuel Consumption
Number of Exhaust Manifolds: 1

Engine Cycle Data

Load	Speed	Power	Exhaust Flow	Exhaust Temp.	Fuel Cons.	PM ₁₀	O ₂	H ₂ O
%		bhp	acfm (cfm)	° F		g/bhp-hr	%	%
100	Rated	1,112	6,397	918		0.02	10	12.5

Emission Data (100% Load)

Emission	Raw Engine Emissions						Target Outlet Emissions						Calculated Reduction
	g/bhp-hr	tons/yr	ppmvd @ 15% O ₂	ppmvd	g/kW-hr	lb/MW-hr	g/bhp-hr	tons/yr	ppmvd @ 15% O ₂	ppmvd	g/kW-hr	lb/MW-hr	
PM ₁₀	0.02	0	7	12	0.027	0.06	0	0	1	2	0.004	0.01	85%

System Specifications**CARB Verified DOC/DPF System Specifications (LTRV24-21-10-R1)**

Sound Attenuation: Critical Grade
Design Exhaust Flow Rate: 6,397 acfm (cfm)
Design Exhaust Temperature¹: 918° F
Minimum Regeneration Temperature²: 500° F
System Pressure Loss: 13.0 inH₂O (Clean)

**MIRATECH Scope of Supply & Equipment Details**

	Model Number	Quantity
DPF Housing & Catalyst	LTRV24-21-10-R1	1 / engine
DPF Housing Kit	LTRV24-10-HSG-0	1 / engine
DPF Housing	LTRV24-10-HSG	1 / engine
• Material	Carbon Steel	
• Paint	Standard High Temperature Black Paint	
• Door Location	Right	
• Dimensions	H 32.625 in x W 44.125 in x L 85 in	
• Inlet Pipe Size & Connection	10 in FF Flange, 150# ANSI standard bolt pattern	
• Outlet Pipe Size & Connection	10 in FF Flange, 150# ANSI standard bolt pattern	
• Weight Including Catalyst	1,328 lbs	
• Weight Without Catalyst	891 lbs	
Tray Set	Tray Set-LTR24-300mm	1 / engine
Gasket	LTR Expansion Mat	11 / engine
Gasket	3010.0002	1 / engine
DPF Block	LTR-DPF-Filter-Block	21 / engine
DPF Spacer	Soot Filter Spacer	3 / engine
Oxidation Catalyst	MECR-OX-SB3113-2400-2000-291	1 / engine
Data Logger	DPF-DataLogger-Assembly	1 / engine
Nut, Bolt, and Gasket Set	NBG-LTR24	1 / engine

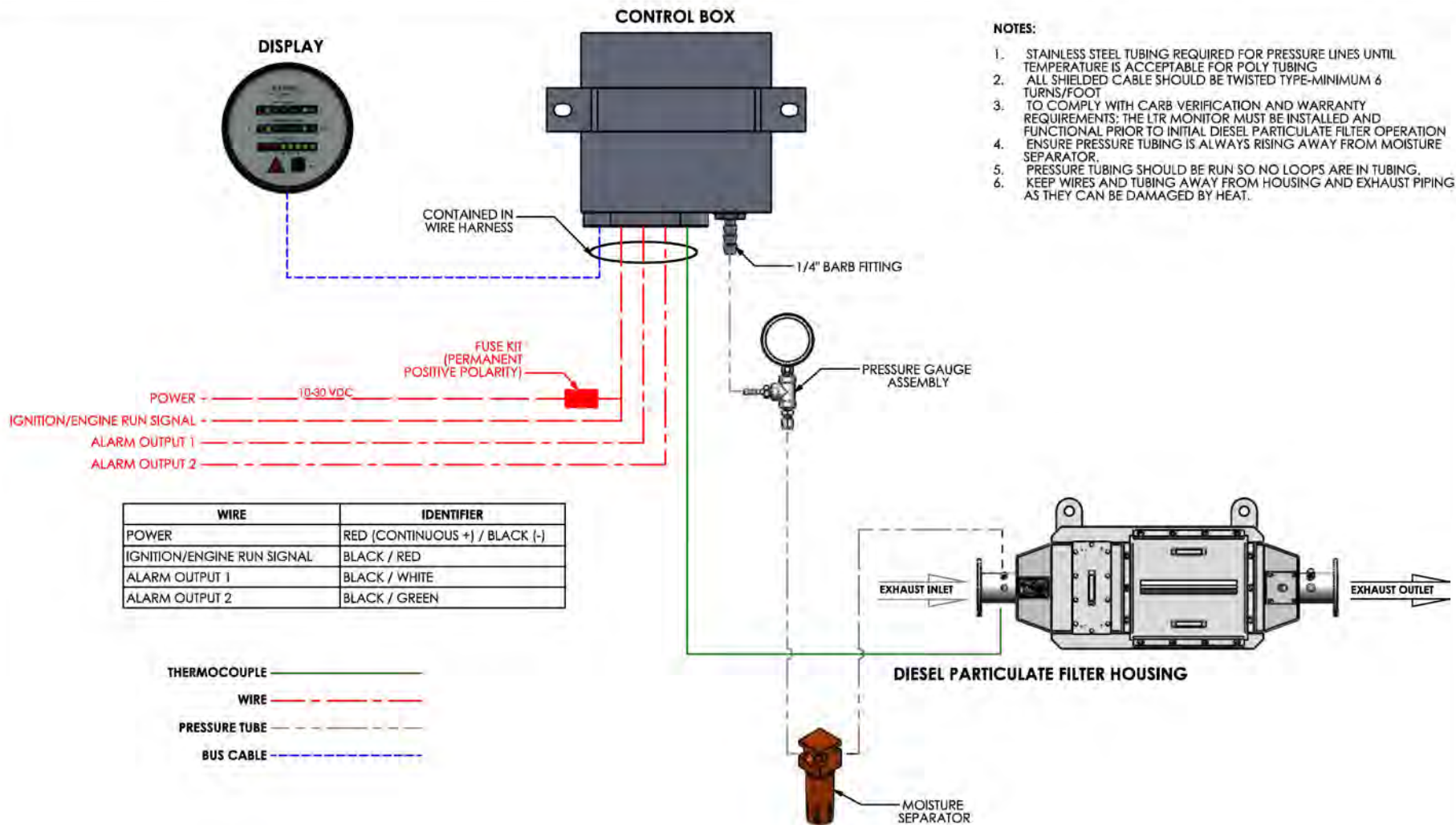
Customer Scope Of Supply

- Support Structure
- Attachment to Support Structure (Bolts, Nuts, Levels, etc.)
- Expansion Joints
- Exhaust Piping
- Inlet Pipe Bolts, Nuts, & Gasket
- Outlet Pipe Bolts, Nuts, & Gasket
- Insulation for Exhaust Piping
- Insulation for Housing
- Installation, Fabrication, and Installation of Mounting Frame for Particulate Filters



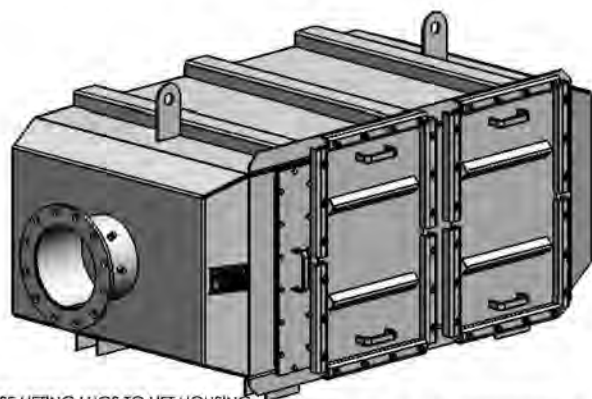
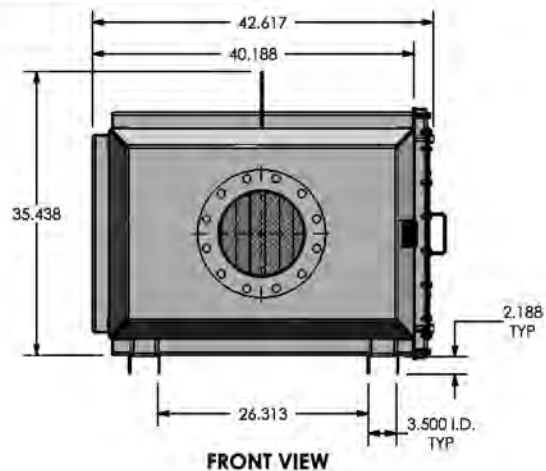
Special Notes & Conditions

1. For housings and exhaust components that are insulated, internally or externally, please refer to Section 7.1 of the General Terms and Conditions of Sale to prevent voiding MIRATECH product warranty.
 - Carbon steel is suitable for temperatures up to 900° F / 482° C continuously, when covered with external insulation or a heat shield. For continuous operation above 900° F / 482° C, where the equipment is externally insulated or has a heat shield, stainless steel should be used.
2. Diesel Particulate Filters depend on exhaust temperature to keep soot regenerated and the filter back pressure within acceptable levels. If the engine will be operated consistently at low loads/low exhaust temperatures, the customer should make provisions to add load via facility operations or a load bank. Refer to the included [*Guidelines for Successful Operation of LTR™ DPF*](#).
 - A packed silencer installed upstream of the MIRATECH catalyst system will void MIRATECH's limited warranty.
 - Final catalyst housings are dependent on engine output and required emission reductions. Changes may be made to optimize the system design at the time of order.
 - Any drawings included with this proposal are preliminary in nature and could change depending on final product selection.
 - Any sound attenuation listed in this proposal is based on housing with catalyst elements installed.
 - Any emission reductions listed in this proposal are based on housing with catalyst elements installed.
 - MIRATECH will confirm shipping location upon placement of order.



PROJECT NAME	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MIRATECH CORPORATION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF MIRATECH CORPORATION IS PROHIBITED.	DIMENSIONS ARE APPROXIMATE IN INCHES UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING			
PROPOSAL NUMBER		DRAWN	DATE	LTR-DPF DATALOGGER System Interconnect	
SALES ORDER NO.		CLV	03/31/2014	DRAWING LTR-DPF DATALOGGER SI	
CUSTOMER P.O.		REVIEWED BY	DATE	SIZE	NOT TO SCALE
	CDT	03/31/2014	A		SHEET 1 OF 1

WEIGHTS (APPROXIMATE)	
EMPTY HOUSING	891 lb
ONE (1) FULL DPF CATALYST LAYER	437 lb
ONE (1) OXIDATION ELEMENT	53 lb
• HOUSING HAS CAPACITY FOR ONE(1) FULL DPF CATALYST LAYERS • HOUSING HAS CAPACITY FOR ONE(1) OXIDATION ELEMENT	



NOTES:

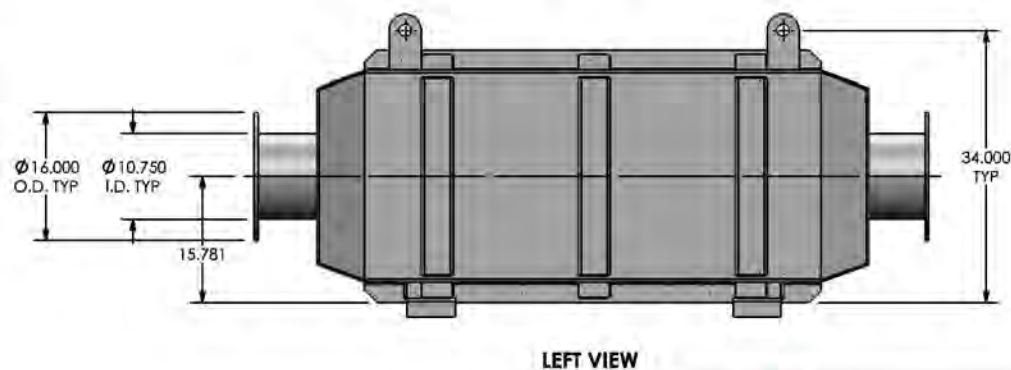
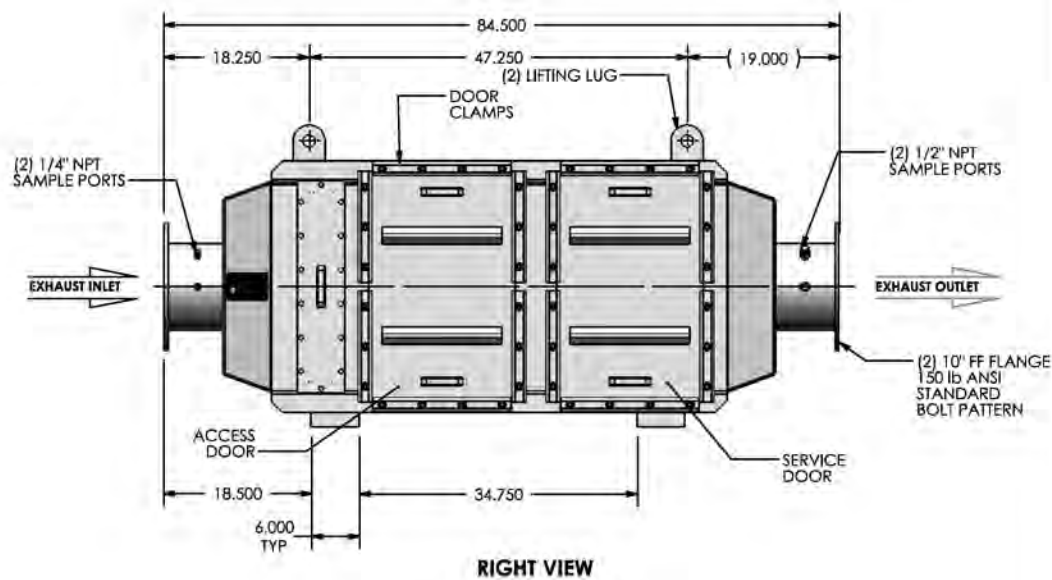
- ONLY USE LIFTING LUGS TO LIFT HOUSING
- ALLOW MINIMUM 50" CLEARANCE FROM DOOR FOR LOADING AND MAINTENANCE
- NO FORCES OR MOMENTS MAY BE APPLIED TO THE FLANGES
- MUST BE MOUNTED HORIZONTALLY (CUSTOM HOUSING REQUIRED TO MOUNT VERTICALLY)
- CARB VERIFIED FOR STATIONARY APPLICATIONS

MATERIAL CONSTRUCTION:

- CARBON STEEL

PAINT:

- HIGH TEMPERATURE BLACK (MIRATECH COATING SYSTEM 1)



PROJECT NAME	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MIRATECH CORPORATION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF MIRATECH CORPORATION IS PROHIBITED.	DIMENSIONS ARE APPROXIMATE IN INCHES UNLESS OTHERWISE SPECIFIED		 LTRV24-10 Sales Drawing		
PROPOSAL NUMBER		DO NOT SCALE DRAWING				
SALES ORDER NO.		DRAWN ACF	DATE 03/31/2014	DRAWING LTRV24-10 SD		REV 0
CUSTOMER P.O.		REVIEWED BY CDT	DATE 03/31/2014	SIZE A	SCALE 1:24	SHEET 1 OF 1

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER DE-14-005-07

Pursuant to the authority vested in the California Air Resources Board (CARB) by Health and Safety Code, Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code section 39515 and 39616 and Executive Order G-14-012;

This action relates to Verification under sections 2700 through 2711 of title 13 of the California Code of Regulations:

Miratech Group, LLC (Miratech)
MIRATECH® LTR™ DOC/DPF

CARB has reviewed Miratech's request for verification of the MIRATECH® LTR™ DOC/DPF. Based on an evaluation of the data provided, and pursuant to the terms and conditions specified below, the Executive Officer of CARB hereby finds that the MIRATECH® LTR™ DOC/DPF reduces emissions of diesel particulate matter (PM) consistent with a Level 3 device (greater than or equal to 85 percent reductions) (California Code of Regulations (CCR), title 13, sections 2702 (f) and (g) and section 2708) and complies with the CARB January 1, 2009, nitrogen dioxide (NO₂) limit (CCR, title 13, section 2702 (f) and section 2706 (a)). Accordingly, the Executive Officer determines that the system merits verification and, subject to the terms and conditions specified below, classifies the MIRATECH® LTR™ DOC/DPF as a Level 3 Plus for use with stationary emergency standby generators using engine families listed in Attachment 1.

This verification is subject to the following terms and conditions:

- The engine must be used in a stationary application associated with emergency standby generators and rated greater than or equal to 50 horsepower (hp).
- The engine must be certified for use in California or certified by the United States Environmental Protection Agency and the engine must be in its original certified configuration.
- The engine must be certified Tier 1, Tier 2, Tier 3, Tier 4i with a rated horsepower between 50 and 75 or over 750, or Tier 4 Alt 20 percent nitrogen oxide (NO_x) and PM, nonroad or stationary diesel engine meeting 0.22 grams per brake horsepower-hour (g/bhp-hr) diesel PM or less based on certification or in-use emissions testing (as tested on an appropriate steady-state certification cycle outlined in the CARB off-road regulations, similar to ISO 8178 D2).
- The engine must not employ exhaust gas recirculation (EGR).
- The engine must not have a pre-existing oxidation catalyst.
- The engine must not have a pre-existing diesel particulate filter.
- The engine must not have a pre-existing selective catalytic reduction.

- The engine must be four-stroke.
- The engine can be turbocharged or naturally-aspirated.
- Miratech must review actual operating conditions (duty cycle, baseline emissions, and engine exhaust backpressure and temperature profiles, and other pre-installation compatibility assessments as required in section 2706 (t) of title 13, of the CCR) prior to retrofitting an engine with the MIRATECH® LTR™ DOC/DPF to ensure compatibility.
- The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
- The MIRATECH® LTR™ DOC/DPF must not be operated with fuel additives, as defined in section 2701 of title 13, of the CCR, unless explicitly verified for use with fuel additive(s).
- The other terms and conditions are specified below.

Table 1: Conditions for the MIRATECH® LTR™ DOC/DPF

Parameter	Value
Application	Stationary Emergency Standby Power Generation
Size Range	Diesel engines rated greater than or equal to 50 hp
Engine Type	Diesel, with or without turbocharger, without EGR, mechanically or electronically controlled, Tier 1, Tier 2, Tier 3, Tier 4i with a rated horsepower between 50 and 75 or over 750, or Tier 4 Alt 20 percent NOx and PM, certified to 0.22 g/bhp-hr or less of PM.
Minimum Exhaust Temperature for Filter Regeneration	260° Celsius / 500° Fahrenheit. At 550° Fahrenheit, regeneration takes approximately 45 minutes.
Maximum Consecutive Minutes Operating Below Passive Regeneration Temperature	720 Minutes
Number of Cold Start and 40 Minute Idle Sessions before Regeneration Required	18
Number of Hours of Operation Before Cleaning of Filter Required	Application-Specific. 2000 Hours Typical.
Fuel	California diesel fuel with less than or equal to 15 ppm sulfur or a biodiesel blend provided that the biodiesel portion of the blend complies with ASTM D6751, the diesel portion of the blend complies with title 13 (CCR), sections 2281 and 2282, and the blend contains no more than 20 percent biodiesel by volume.
Verification Level	Level 3 Plus Verification: PM - at least 85 percent reduction NO2 - meets January 2009 limit

This Executive Order is valid provided that installation instructions for MIRATECH® LTR™ DOC/DPF do not recommend tuning the engine to specifications different from those of the engine manufacturer. The product must not be used with any other systems or engine modifications without CARB and manufacturer approval.

The MIRATECH® LTR™ DOC/DPF is a passive diesel exhaust filter system. It consists of a filter housing, DOC, DPF, and monitoring system (backpressure sensor, temperature sensor, and a display unit that provides warnings when the filter becomes clogged or damaged). Changes made to the design or operating conditions of MIRATECH® LTR™ DOC/DPF, as exempted by CARB, which adversely affect the performance of the engine's pollution control system, shall invalidate this Executive Order.

No changes are permitted to the MIRATECH® LTR™ DOC/DPF without CARB evaluation and approval. CARB must be notified in writing of any changes to any part of MIRATECH® LTR™ DOC/DPF. Failure to do so shall invalidate this Executive Order.

No person shall alter, physically disable, disconnect, bypass, or tamper with an installed CARB verified diesel emissions control strategy, as outlined in title 13 CCR section 2711(e). Should CARB become aware that a design feature of a verified device is altered, physically disabled, disconnected, bypassed, or tampered on multiple units by independent persons, Miratech will be responsible to propose a design modification and recall plan to the Executive Officer to minimize existing and potential for future tampering of the verified device.

Marketing of the MIRATECH® LTR™ DOC/DPF using identification other than that shown in the Executive Order or for an application other than that listed in the Executive Order shall be prohibited unless prior approval is obtained from CARB.

As specified in the Diesel Emissions Control Strategy Verification Procedure (CCR, title 13, section 2706 (j)), CARB assigns each Diesel Emissions Control Strategy a family name. The designated family name for the verification as outlined above is:

CA/MES/2014/PM3+/N00/ST/DPF01

This designated family name must be used in reference to this Executive Order as part of the system labeling requirement. Labels attached to the MIRATECH® LTR™ DOC/DPF and the engine must be identical.

Proper engine maintenance is critical for the proper functioning of the diesel emissions control strategy. The owner of the equipment on which the diesel emissions control strategy is installed is strongly advised to adhere to all good engine maintenance practices. Failure to document proper engine maintenance, including keeping records of the engine's oil consumption, may be grounds for denial of a warranty claim.

The terms and conditions of this Executive Order must be satisfied regardless of where the system is sold in order for the system to be considered verified. Systems sold as verified, or which carry a CARB-approved label, must satisfy all the terms and conditions of this Executive Order.

Additionally, as stated in the Diesel Emissions Control Strategy Verification Procedure, Miratech is responsible for honoring the record keeping requirements (CCR, title 13, section 2702), their warranty (CCR, title 13, section 2707), conducting in-use compliance testing (CCR, title 13, section 2709), and complying with the system labeling requirements (CCR, title 13, section 2706 (j)).

In addition, CARB reserves the right in the future to review this Executive Order and verification provided herein to assure that the verified add-on or modified part continues to meet the standards and procedures of CCR, title 13, section 2222, et seq and CCR, title 13, sections 2700 through 2711.

Systems verified under this Executive Order shall conform to all applicable California emissions regulations. This Executive Order does not release Miratech from complying with all other applicable regulations.

Violation of any of the above conditions shall be grounds for revocation of this Executive Order.

Executive Order DE-14-005-06 is hereby superseded and is of no further force and effect.

Executed at Sacramento, California, this 25 day of May 2021.

A handwritten signature in blue ink, appearing to read "Richard Boyd".

Richard Boyd
Assistant Division Chief
Transportation and Toxics Division

APPENDIX C – EMISSION CALCULATIONS

Table C-1 Criteria Pollutant Emissions

Pollutant	Emission Factor (g/bhp-hr)	References	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
VOC	0.20	[1,2]	0.49	0.49	0.49	0.49	0.49	0.49	24.52	0.07
NOx	3.84	[1,2]	9.42	9.42	9.42	9.42	9.42	9.42	470.75	1.32
SOx	0.005	[3]	0.01	0.01	0.01	0.01	0.01	0.01	0.60	0.002
CO	0.16	[1]	0.39	0.39	0.39	0.39	0.39	0.39	19.61	0.05
PM10/PM2.5 (No DPF)	0.02	[1,4]	0.05		0.05		0.05			
PM10/PM2.5 (With DPF)	0.003	[1,4]		0.007		0.007		0.007	0.368	0.001

Table C-2 Toxic Air Contaminant Emissions

Pollutant	CAS Number	Emission Factor (g/bhp-hr)	References	MHC (lb/hr)	MAC (lb/year)
Diesel PM	9901	0.02	[1,4]	0.007	0.37

Table C-3 GHG Emissions

Pollutant	Emissions (kg/yr)	Emissions (mt/yr)	Emissions (tpy)	GWP ^a	Emissions of CO ₂ e (tpy)
CO ₂	27,710.6	27.7	30.5	1	30.5
CH ₄	1.1	0.0011	0.0012	25	0.03
N ₂ O	0.2	0.0002	0.0002	298	0.07
					30.65

Equipment and Operating Parameters

Value	Units
Operating schedule	50 hr/yr
Operating schedule	1 hr/day
Operating Schedule	4.2 hr/mo
Engine rating	1112 hp
Fuel use	401 lb/hr
Fuel use	54.3 gal/hr
Max Annual Fuel Use	2,715 gal/yr

Other Factors and Constants

Value	References
453.5 g/lb	Constant
7000 BTU/hp-hr	[5]
137,000 BTU/gal diesel	[6]
7.05 lb/gal diesel	[6]
64 lb/lb mol SO ₂	Constant
32 lb/lb mol S	Constant
15 ppmw S in USLD	[7]
95% %NO _x	[2]
5% %NMHC	[2]
4.04 g NMHC-NO _x /bhp-hr	[1]
0.16 g CO/bhp-hr	[1]
0.02 g PM/bhp-hr	[1]
85% DPF PM Filtration Efficiency	[8]
0.138 Diesel No. 2b MMBtu/gal	[b]
73.96 CO ₂ EF for Diesel kg/MMBtu	[b]
0.003 CH ₄ EF for Diesel kg/MMBtu	[b]
0.0006 N ₂ O EF for Diesel kg/MMBtu	[b]
1.10231 Metric tons (mt) to Short tons (st/mt)	[c]

References

- [1] PM, NMHC+NO_x, CO per "STATEMENT OF EXHAUST EMISSIONS 2022 Perkins Diesel Fueled Generator" document.
 [2] 95% of NMHC+NO_x as NO_x and 5% as NMHC (VOC/ROC) per 2005 Carl Moyer Guidelines Table B-22 (NO_x and MHC Fraction Default Values for All Engines except TRUs)
 [3] SO_x EF based on mass balance of 15 ppmw sulfur content in diesel fuel and engine fuel consumption rate
 [4] Assume 100% diesel PM is <2.5 microns ("80%-95% of the mass of particles in DE is in the size range from 0.05-1.0" per EPA Health Assessment for Diesel Engine Exhaust - May 2002)
 [5] Default Brake-Specific Fuel Capacity (BSFC) per AP-42 Table 3.3-1 (10/96)
 [6] Defaults for diesel/distillate fuel oil per AP-42 Appendix A (09/85)
 [7] CA diesel limited to 15 ppm sulfur for sale or supply (CCR §2281(a)(2) - Sulfur Content of Diesel Fuel)
 [8] Miratech DPF Spec Sheet PDF, 85% PM reduction.
 (a) Source: 40 CFR 98 Subpart A, Table A-1, [78 FR 71948, Nov. 29, 2013] effective Jan. 1, 2014.
 (b) Source: 40 CFR 98 Subpart C, Tables C-1 and C-2.
 (c) Source: 40 CFR 98 Subpart A, Table A-2.

APPENDIX D – RULE 1401 TIER II SCREENING RISK ASSESSMENT

EMISSIONS ARE ENTERED ON THE EMISSIONS WORKSHEET OR ON ONE OF EQUIPMENT WORKSHEETS

INPUT PARAMETERS ENTERED ON THE EMISSIONS SHEET ARE USED FOR TIERS 1 AND TIER 2 ANALYSES

TIER 2 SCREENING RISK ASSESSMENT REPORT

(Procedure Version 8.1 & Package N, September 1, 2017) - Risk Tool V1.103

A/N: West

Fac: AES Alamitos, LLC

Application deemed complete date: 4/30/2022

1. Stack Data

Equipment Type Diesel ICE Engine Horse Power: 1112 BHP
 Engine Year Built: 2022
 Generator Engine? YES
 Combustion Eff 0.85 Engine Emission Factor: 0.02 g/bhp-hr
No T-BACT

Operation Schedule 1 hrs/day
1 days/week
50 weeks/year

Stack Height 15.33 ft

Distance to Residential 383.1 m
 Distance to Commercial 329.2 m
 Meteorological Station Long Beach Airport

2. Tier 2 Data

Dispersion Factors tables	Point Source
For Chronic X/Q	Table 10
For Acute X/Q max	Table 10.6

Dilution Factors

Receptor	X/Q ($\mu\text{g}/\text{m}^3$)/(tons/yr)	X/Qmax ($\mu\text{g}/\text{m}^3$)(lbs/hr)
Residential	0.10	4.31
Commercial - Worker	0.12	3.52

Intake and Adjustment Factors

	Residential	Worker
Year of Exposure	30	
Combined Exposure Factor (CEF) - Table 4	677.40	55.86
Worker Adjustment Factor (WAF) - Table 5	1	4.20

A/N: West

Application deemed complete date: 04/30/22

3. Rule 1401 Compound Data

[illegible]

A/N: West

Application deemed complete date: 04/30/22

4. Emission Calculations

[illegible]

TIER 2 RESULTS

A/N: West

Application deemed complete date: 04/30/22

5a. MICR

$$\text{MICR Resident} = \text{CP (mg/(kg-day))}^{-1} * \text{Q (ton/yr)} * (\text{X/Q})_{\text{Resident}} * \text{CEF Resident} * \text{MP Resident} * 1\text{e-6} * \text{MwAF}$$
$$\text{MICR Worker} = \text{CP (mg/(kg-day))}^{-1} * \text{Q (ton/yr)} * (\text{X/Q}) \text{ Worker} * \text{CEF Worker} * \text{MP Worker} * \text{WAF Worker} * 1\text{e-6} * \text{M WAF}$$

Compound	Residential	Commercial
Particulate Emissions from Diesel-Fueled Engines	1.32E-08	5.61E-09
Total	1.32E-08	5.61E-09
	PASS	PASS

5b. Is Cancer Burden Calculation Needed (MICR >1E-6)?

NO

New X/Q at which MICR_{70yr} is one-in-a-million $[(\mu\text{g}/\text{m}^3)/(\text{tons}/\text{yr})]$:

New Distance, interpolated from X/Q table using New X/Q (meter):

Zone Impact Area (km²):

Zone of Impact Population (7000 person/km²):

Cancer Burden:

6. Hazard Index Summary

HIA = [Q(lb/hr) * (X/Q)max * MWAF] / Acute REL

HIC = [Q(ton/yr) * (X/Q) * MP * MWAF] / Chronic REL

HIC 8-hr = [Q(ton/yr) * (X/Q) * WAF * MWAF] / 8-hr Chronic REL

A/N: West

Application deemed complete date: 04/30/22

Target Organs	Acute	Chronic	8-hr Chronic	Acute Pass/Fail	Chronic Pass/Fail	8-hr Chronic Pass/Fail
Alimentary system (liver) - AL			N/A	Pass	Pass	Pass
Bones and teeth - BN			N/A	Pass	Pass	Pass
Cardiovascular system - CV			N/A	Pass	Pass	Pass
Developmental - DEV			N/A	Pass	Pass	Pass
Endocrine system - END			N/A	Pass	Pass	Pass
Eye			N/A	Pass	Pass	Pass
Hematopoietic system - HEM			N/A	Pass	Pass	Pass
Immune system - IMM			N/A	Pass	Pass	Pass
Kidney - KID			N/A	Pass	Pass	Pass
Nervous system - NS			N/A	Pass	Pass	Pass
Reproductive system - REP			N/A	Pass	Pass	Pass
Respiratory system - RESP		4.35E-06	N/A	Pass	Pass	Pass
Skin			N/A	Pass	Pass	Pass

Application deemed complete date: 04/30/22

$$\text{HIA} = [\text{Q(lb/hr)} * (\text{X/Q})_{\text{max resident}} * \text{MWAFL}] / \text{Acute REL}$$
[illegible]

6a. Hazard Index Acute - Worker

A/N: West

Application deemed complete date: 04/30/22

$$\text{HIA} = [\text{Q(lb/hr)} * (\text{X/Q})_{\text{max Worker}} * \text{MWAf}] / \text{Acute REL}$$
[illegible]

A/N: West

Application deemed complete date: 04/30/22

6b. Hazard Index Chronic - Resident

$$\text{HIC} = [\text{Q}(\text{ton/yr}) * (\text{X/Q}) \text{ Resident} * \text{MP Chronic Resident} * \text{MWAF}] / \text{Chronic REL}$$
[illegible]

A/N: West

Application deemed complete date: 04/30/22

6b. Hazard Index Chronic - Worker

$$\text{HIC} = [\text{Q}(\text{ton/yr}) * (\text{X}/\text{Q}) * \text{MP Chronic Worker} * \text{MWAFF}] / \text{Chronic REL}$$
[illegible]

6c. 8-hour Hazard Index Chronic - Resident

A/N: West

Application deemed complete date: 04/30/22

$$\text{HIC 8-hr} = [\text{Q}(\text{ton/yr}) * (\text{X/Q}) \text{ Resident} * \text{WAF Resident} * \text{MWAF}] / \text{8-hr Chronic REL}$$
[illegible]

A/N: West

Application deemed complete date: 04/30/22

6c. 8-hour Hazard Index Chronic - Worker

$$\text{HIC 8-hr} = [\text{Q(ton/yr)} * (\text{X/Q}) \text{ Worker} * \text{WAF Worker} * \text{MWAF}] / \text{8-hr Chronic REL}$$
[illegible]

EMISSIONS ARE ENTERED ON THE EMISSIONS WORKSHEET OR ON ONE OF EQUIPMENT WORKSHEETS

INPUT PARAMETERS ENTERED ON THE EMISSIONS SHEET ARE USED FOR TIERS 1 AND TIER 2 ANALYSES

TIER 2 SCREENING RISK ASSESSMENT REPORT

(Procedure Version 8.1 & Package N, September 1, 2017) - Risk Tool V1.103

A/N: East

Fac: AES Alamitos, LLC

Application deemed complete date: 4/30/2022

1. Stack Data

Equipment Type Diesel ICE Engine Horse Power: 1112 BHP
 Engine Year Built: 2022
 Generator Engine? YES
 Combustion Eff 0.85 Engine Emission Factor: 0.02 g/bhp-hr
No T-BACT

Operation Schedule 1 hrs/day
1 days/week
50 weeks/year

Stack Height 15.33 ft

Distance to Residential 457.2 m
 Distance to Commercial 250 m
 Meteorological Station Long Beach Airport

2. Tier 2 Data

Dispersion Factors tables	Point Source
For Chronic X/Q	Table 10
For Acute X/Q max	Table 10.6

Dilution Factors

Receptor	X/Q ($\mu\text{g}/\text{m}^3$)/(tons/yr)	X/Qmax ($\mu\text{g}/\text{m}^3$)(lbs/hr)
Residential	0.07	3.37
Commercial - Worker	0.20	4.82

Intake and Adjustment Factors

	Residential	Worker
Year of Exposure	30	
Combined Exposure Factor (CEF) - Table 4	677.40	55.86
Worker Adjustment Factor (WAF) - Table 5	1	4.20

A/N: East

Application deemed complete date: 04/30/22

3. Rule 1401 Compound Data

[illegible]

A/N: East

Application deemed complete date: 04/30/22

4. Emission Calculations

[illegible]

TIER 2 RESULTS

A/N: East

Application deemed complete date: 04/30/22

5a. MICR

$$\text{MICR Resident} = \text{CP (mg/(kg-day))}^{-1} * \text{Q (ton/yr)} * (\text{X/Q})_{\text{Resident}} * \text{CEF Resident} * \text{MP Resident} * 1\text{e-6} * \text{MWAf}$$
$$\text{MICR Worker} = \text{CP (mg/(kg-day))}^{-1} * \text{Q (ton/yr)} * (\text{X/Q})_{\text{Worker}} * \text{CEF Worker} * \text{MP Worker} * \text{WAF Worker} * 1\text{e-6} * \text{MWAF}$$

Compound	Residential	Commercial
Particulate Emissions from Diesel-Fueled Engines	9.19E-09	9.48E-09
Total	9.19E-09	9.48E-09
	PASS	PASS

5b. Is Cancer Burden Calculation Needed (MICR >1E-6)?

NO

New X/Q at which MICR_{70yr} is one-in-a-million [(μg/m³)/(tons/yr)]:

New Distance, interpolated from X/Q table using New X/Q (meter):

Zone Impact Area (km²):

Zone of Impact Population (7000 person/km²):

Cancer Burden:

6. Hazard Index Summary

HIA = [Q(lb/hr) * (X/Q)max * MWAF] / Acute REL

HIC = [Q(ton/yr) * (X/Q) * MP * MWAF] / Chronic REL

HIC 8-hr = [Q(ton/yr) * (X/Q) * WAF * MWAF] / 8-hr Chronic REL

A/N: East

Application deemed complete date: 04/30/22

Target Organs	Acute	Chronic	8-hr Chronic	Acute Pass/Fail	Chronic Pass/Fail	8-hr Chronic Pass/Fail
Alimentary system (liver) - AL			N/A	Pass	Pass	Pass
Bones and teeth - BN			N/A	Pass	Pass	Pass
Cardiovascular system - CV			N/A	Pass	Pass	Pass
Developmental - DEV			N/A	Pass	Pass	Pass
Endocrine system - END			N/A	Pass	Pass	Pass
Eye			N/A	Pass	Pass	Pass
Hematopoietic system - HEM			N/A	Pass	Pass	Pass
Immune system - IMM			N/A	Pass	Pass	Pass
Kidney - KID			N/A	Pass	Pass	Pass
Nervous system - NS			N/A	Pass	Pass	Pass
Reproductive system - REP			N/A	Pass	Pass	Pass
Respiratory system - RESP		7.35E-06	N/A	Pass	Pass	Pass
Skin			N/A	Pass	Pass	Pass

A/N: East

Application deemed complete date: 04/30/22

6a. Hazard Index Acute - Resident

$$HIA = [Q(\text{lb/hr}) * (X/Q)_{\text{max resident}} * MWA_{\text{F}}] / \text{Acute REL}$$
[illegible]

6a. Hazard Index Acute - Worker

A/N: East

Application deemed complete date: 04/30/22

$$\text{HIA} = [\text{Q(lb/hr)} * (\text{X/Q})_{\text{max Worker}} * \text{MWAf}] / \text{Acute REL}$$
[illegible]

A/N: East

Application deemed complete date: 04/30/22

6b. Hazard Index Chronic - Resident

$$\text{HIC} = [\text{Q}(\text{ton/yr}) * (\text{X/Q}) \text{ Resident} * \text{MP Chronic Resident} * \text{MWAF}] / \text{Chronic REL}$$
[illegible]

A/N: East

Application deemed complete date: 04/30/22

6b. Hazard Index Chronic - Worker

$$\text{HIC} = [\text{Q}(\text{ton/yr}) * (\text{X}/\text{Q}) * \text{MP Chronic Worker} * \text{MWAf}] / \text{Chronic REL}$$
[illegible]

6c. 8-hour Hazard Index Chronic - Resident

A/N: East

Application deemed complete date: 04/30/22

$$\text{HIC 8-hr} = [\text{Q}(\text{ton/yr}) * (\text{X/Q}) \text{ Resident} * \text{WAF Resident} * \text{MWAF}] / \text{8-hr Chronic REL}$$
[illegible]

A/N: East

Application deemed complete date: 04/30/22

6c. 8-hour Hazard Index Chronic - Worker

$$\text{HIC 8-hr} = [\text{Q(ton/yr)} * (\text{X/Q}) \text{ Worker} * \text{WAF Worker} * \text{MWAF}] / \text{8-hr Chronic REL}$$
[illegible]

Attachment 3.2

ICE Generator PTC/PTO Conditions





South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

August 10, 2022

Ms. Charlene He
Environmental Manager
AES Alamos
690 N. Studebaker Rd.
Long Beach, CA 90803

Subject: Title V Significant Permit Revision, AES Alamos, ID 115394, Rev. 40

Dear Ms. He:

Please find attached the revised Title Page, Table of contents, and Section D of the Title V/RECLAIM facility permit for the equipment located at 690 N. Studebaker Rd. Long Beach, CA 90803. The revised section reflects the approval of the two identical diesel emergency engines to be constructed/operated. The corresponding application numbers and their device IDs are summarized in the table below:

Appl. No.	Equipment	Section	Device ID
636578	Diesel Emergency Engine, 1112 BHP	D	D213
636579	Diesel Emergency Engine, 1112 BHP	D	D214

South Coast AQMD submitted a proposed draft permit and associated documents to EPA Region IX for a 45-day review period on June 17, 2022 and no comments were received. The draft permit was also made available for at least a 30 day public comment period on or about June 21, 2022 and no comments were received from the public.

Please review the attached sections carefully. Insert the enclosed sections into your Title V/RECLAIM Facility Permit and discard the earlier versions. If you determine there are administrative errors or if you have questions concerning changes to your permit, please contact Mr. Jaebn Ju at (909) 396-2642 or by email at jjju@aqmd.gov within 30 days of the receipt of your permit.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Angela Shibata', with a long horizontal line extending to the right.

Angela Shibata
Senior Air Quality Engineering Manager
Engineering and Permitting

AIS:LC:JJ

Enclosures: Title V/RECLAIM facility permit revision

cc with enclosure
Mr. Gerardo Rios, EPA Region IX
Title V Central file
A/N 636580 (TV Significant Revision)



FACILITY PERMIT TO OPERATE

**AES ALAMITOS, LLC
690 N STUDEBAKER RD
LONG BEACH, CA 90803**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Wayne Nastri
Executive Officer

By 
Jason Aspell
Deputy Executive Officer
Engineering and Permitting



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 14: INTERNAL COMBUSTION - EMERGENCY POWER					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, PERKINS, MODEL 2806C-E18TTAG7, WITH WITH A DIESEL PARTICULATE FILTER, MIRATECH, MODEL LTRV24-20-10-R1, 1112 BHP A/N: 636578	D213			CO: 2.6 GRAM/BHP-HR DIESEL (8) [40CFR 60 Subpart IIII, 6-29-2021]; CO: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 10-1-2021]; NOX: 469 LBS/1000 GAL DIESEL (1) ; NOX + ROG: 4.8 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 10-1-2021]; NOX + ROG: 4.8 GRAM/BHP-HR DIESEL (8) [40CFR 60 Subpart IIII, 6-29-2021]; PM: (9) ; PM: 0.15 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 10-1-2021]; PM: 0.15 GRAM/BHP-HR DIESEL (8) [40CFR 60 Subpart IIII, 6-29-2021]	B61.2, C1.8, C1.9, D12.18, E74.1, E116.1, E193.17, E193.18, H23.9, K67.9

* (1) (1A) (1B) Denotes RECLAIM emission factor

(3) Denotes RECLAIM concentration limit

(5) (5A) (5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

(9) See App B for Emission Limits

(2) (2A) (2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)

(10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 14: INTERNAL COMBUSTION - EMERGENCY POWER					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, PERKINS, MODEL 2806C-E18TTAG7, WITH A DIESEL PARTICULATE FILTER, MIRATECH, MODEL LTRV24-20-10-R1, 1112 BHP A/N: 636579	D214			CO: 2.6 GRAM/BHP-HR DIESEL (8) [40CFR 60 Subpart IIII, 6-29-2021]; CO: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 10-1-2021]; NOX: 469 LBS/1000 GAL DIESEL (1); NOX + ROG: 4.8 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 10-1-2021]; NOX + ROG: 4.8 GRAM/BHP-HR DIESEL (8) [40CFR 60 Subpart IIII, 6-29-2021]; PM: (9); PM: 0.15 GRAM/BHP-HR DIESEL (4); PM: 0.15 GRAM/BHP-HR DIESEL (8) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1470, 10-1-2021; 40CFR 60 Subpart IIII, 6-29-2021]	B61.2, C1.8, C1.9, D12.18, E74.1, E116.1, E193.17, E193.18, H23.9, K67.9

- * (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : D45, D48, D51]

B61.1 The operator shall not use natural gas containing the following specified compounds:

Compound	Range	grain per 100 scf
H2S	greater than	0.25

This concentration limit is an annual average based on monthly samples of natural gas composition or gas supplier documentation. Gaseous fuel samples shall be tested using South Coast AQMD Method 307-91 for total sulfur calculated as H2S.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D165, D173]

B61.2 The operator shall only use fuel oil containing the following specified compounds:

Compound	ppm by weight
Sulfur less than or equal to	15.0

[RULE 1470, 10-1-2021; RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000; 40CFR 60 Subpart IIII, 6-29-2021]

[Devices subject to this condition : D213, D214]

C. Throughput or Operating Parameter Limits

C1.3 The operator shall limit the number of start-ups to no more than 62 in any one calendar month.



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The number of cold startups shall not exceed 2 in any calendar month, the number of warm startups shall not exceed 4 in any calendar month, and the number of hot starts shall not exceed 4 in any calendar month, with no more than 1 startup in any one day.

The number of cold startups shall not exceed 24 in any calendar year, the number of warm startups shall not exceed 48 in any calendar year, and the number of hot startups shall not exceed 48 in any calendar year.

For the purposes of this condition, a cold startup is defined as a startup which occurs after the auxiliary boiler has been shut down for 48 hours or more. A cold startup shall not exceed 170 minutes. The NO_x emissions from a cold startup shall not exceed 4.22 lbs.

For the purposes of this condition, a warm startup is defined as a startup which occurs after the auxiliary boiler has been shut down 10 hours or more but less than 48 hours. A warm startup shall not exceed 85 minutes. The NO_x emissions from a warm startup shall not exceed 2.11 lbs.

For the purposes of this condition, a hot startup is defined as a startup which occurs after the auxiliary boiler has been shut down for less than 10 hours. A hot startup shall not exceed 25 minutes. The NO_x emissions from a hot startup shall not exceed 0.62 lbs.

The operator shall maintain records in a manner approved by the South Coast AQMD, to demonstrate compliance with this condition and the records shall be made available to South Coast AQMD personnel upon request.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]

[Devices subject to this condition : D181]

C1.8 The operator shall limit the operating time to no more than 200 hour(s) in any one year.



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The 200 hours per year shall include no more than 50 hours in any one year for maintenance and testing purposes..

The operation of the engine beyond the 50 hr/yr allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the grid operator or electric utility has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage..

Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect..

[RULE 1110.2, 2-1-2008; RULE 1110.2, 11-1-2019; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1304(c)-Offset Exemption, 6-14-1996; RULE 1470, 10-1-2021]

[Devices subject to this condition : D213, D214]

C1.9 The operator shall limit the maintenance testing to no more than 5 hour(s) in any one month.

[RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1304(c)-Offset Exemption, 6-14-1996]

[Devices subject to this condition : D213, D214]

C157.1 The operator shall install and maintain a pressure relief valve set at 50 psig.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The operator shall also install and maintain a device to continuously record the parameter being measured. Continuously record shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The pressure differential shall not exceed 2.0 inches water column.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]**

[Devices subject to this condition : C183]

D12.18 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

[**RULE 1110.2, 2-1-2008; RULE 1110.2, 11-1-2019; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1304(c)-Offset Exemption, 6-14-1996; 40CFR 60 Subpart III, 6-29-2021]**

[Devices subject to this condition : D213, D214]

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : C53]

- E74.1** Notwithstanding the requirements of Section E conditions, this permit to construct shall expire if construction to this equipment is not complete within one year from the date of issuance of this permit, unless an extension is granted in writing by the South Coast AQMD.

[RULE 205, 1-5-1990]

[Devices subject to this condition : D213, D214]

- E116.1** This engine shall not be used as part of a demand response program using interruptible service contract in which a facility receives a payment or reduced rates in return for reducing its electric load on the grid when requested to do so by the utility or the grid operator.

[RULE 1470, 10-1-2021]

[Devices subject to this condition : D213, D214]

- E144.1** The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D19, D151, D152, D153, D163]

- E179.3** For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

Condition Number 12-6



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The operator shall record the total net power generated in a calendar month in megawatt-hours.

The operator shall calculate and record greenhouse gas emissions for each calendar month using the following formula:

$$\text{GHG} = 61.41 * \text{FF}$$

Where GHG is the greenhouse gas emissions in tons of CO₂ and FF is the monthly fuel usage in millions standard cubic feet.

The operator shall calculate and record the CO₂ emissions in pounds per net megawatt-hour based on a 12-month rolling average. The CO₂ emissions from this equipment shall not exceed 861,119 tons per year per turbine on a 12-month rolling average basis. The calendar annual average CO₂ emissions shall not exceed 916.01 lbs per gross megawatt-hours (inclusive of equipment degradation).

The operator shall maintain records to demonstrate compliance with this condition and shall make such records available to the Executive Officer upon request. The records shall be maintained for a minimum of 5 years in a manner approved by South Coast AQMD.

[RULE 1714, 12-10-2012; RULE 1714, 3-1-2019]

[Devices subject to this condition : D165, D173]

E193.17 The operator shall operate and maintain this equipment according to the following requirements:



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The operator shall comply with the emission standards specified in 40 CFR 60.4205(b) by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission related specifications.

The operator shall operate and maintain the engine and control device according to the manufacturer's written emission-related instructions (or procedures developed by the operator that are approved by the engine manufacturer), change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR 1068, as they apply.

[40CFR 60 Subpart IIII, 6-29-2021]

[Devices subject to this condition : D213, D214]

E193.18 The operator shall operate and maintain this equipment according to the following requirements:



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

This engine shall not be operated unless its exhaust is vented to the diesel exhaust after-treatment system which is in full operation and in good operating condition at all times.

The equipment shall comply with the CARB Executive Order DE-14-005-07.

Removal of the diesel particulate filter's filter media for cleaning may only occur under the following conditions:

- A. The internal combustion engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed; and
- B. The diesel particulate filter media shall be returned and re-installed within 10 working days from the date of removal; and
- C. The owner or operator shall maintain records indicating the date(s) the diesel particulate filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained for a minimum period of three years.

[RULE 1470, 10-1-2021; **RULE 2005, 12-4-2015**; RULE 2005, 11-5-2021]

[Devices subject to this condition : D213, D214]

E448.1 The operator shall comply with the following requirements:



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

H23.7 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
CO	District Rule	1146
NOX	District Rule	1146
NOX	District Rule	1100

[RULE 1100, 1-10-2020; **RULE 1146, 11-1-2013**; RULE 1146, 12-4-2020]

[Devices subject to this condition : D181]

H23.8 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1415
Refrigerants	40CFR82, SUBPART	F

[RULE 1415, 12-3-2010; **40CFR 82 Subpart F, 12-27-2017**]

[Devices subject to this condition : E212]

H23.9 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Sulfur compounds	District Rule	431.2
PM	District Rule	1470



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[RULE 1470, 10-1-2021; **RULE 431.2, 5-4-1990**; RULE 431.2, 9-15-2000]

[Devices subject to this condition : D213, D214]

K. Record Keeping/Reporting

K40.2 The operator shall provide to the District a source test report in accordance with the following specifications:

Emission data shall be expressed in terms of lbs/MM cubic feet.

All moisture concentration shall be expressed in terms of percent corrected to 3 percent oxygen.

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

Source test results shall also include fuel flow rate (CFH) and generator output (MW) under which the test was conducted.

Emission data shall be expressed in terms of concentration (ppmv), corrected to 3 percent oxygen, dry basis.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.



FACILITY PERMIT TO OPERATE AES ALAMITOS, LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

- K67.8 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

the total hourly amount of injected ammonia(NH₃)

[RULE 2012, 5-6-2005]

[Devices subject to this condition : C53]

- K67.9 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The operator shall keep records of any corrective action taken after the backpressure monitor has notified the operator that the backpressure limit of the engine is approached.

An engine operating log listing on a monthly basis the emergency use hours of operation, maintenance and testing hours of operation, and any other hours of use with a description of the reason for operation. Additionally, each time the engine is started manually, the log shall include the date of operation and the timer reading in hours at the beginning and end of operation.

The log shall be kept for a minimum of five calendar years prior to the current year and made available to District personnel upon request. The total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January of each year.

[RULE 1110.2, 2-1-2008; RULE 1110.2, 11-1-2019; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1304(c)-Offset Exemption, 6-14-1996; 40CFR 60 Subpart IIII, 6-29-2021]

[Devices subject to this condition : D213, D214]