



air pollution control district
SANTA BARBARA COUNTY

DRAFT

PERMIT to OPERATE 13725-R4

and

PART 70 OPERATING PERMIT 13725

UNIVERSITY OF CALIFORNIA
At SANTA BARBARA (UCSB)

OWNER/OPERATOR

UNIVERSITY OF CALIFORNIA - SANTA BARBARA

**Santa Barbara County
Air Pollution Control District**

SEPTEMBER 2026

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ABBREVIATIONS/ACRONYMS

AP-42	USEPA's <i>Compilation of Emission Factors</i>
District	Santa Barbara County Air Pollution Control District
ASTM	American Society for Testing Materials
ATC	Authority to Construct
BACT	Best Available Control Technology
Btu	British thermal unit
CAM	compliance assurance monitoring
CARB	California Air Resources Board
CEMs	Continuous Emissions Monitors
CAP	Clean Air Plan
dscf	dry standard cubic foot
°F	degree Fahrenheit
FID	facility identification
FUMP	Fuel Use Monitoring Plan
gal	gallon
gr	grain
HAP	hazardous air pollutant (as defined by CAAA, Section 112(b))
H ₂ S	hydrogen sulfide
I&M	Inspection & Maintenance
ISO	International Standards Organization
k	kilo (thousand)
l	liter
lb	pound
lbs/day	pounds per day
lbs/hr	pounds per hour
M	mega (million)
MACT	Maximum Achievable Control Technology
MM	million
MW	molecular weight
NAR	Nonattainment Review
NEI	net emissions increase
NSR	New Source Review
NSPS	New Source Performance Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants
O ₂	oxygen
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
ppm(vd or w)	parts per million (volume dry or weight)
psia	pounds per square inch absolute
psig	pounds per square inch gauge
PRD/PSV	pressure relief device
PTO	Permit to Operate
RACT	Reasonably Available Control Technology
ROC	reactive organic compounds, same as "VOC" as used in this permit
scf	standard cubic foot
scfd (or scfm)	standard cubic feet per day (or per minute)
SIP	State Implementation Plan
SSID	stationary source identification
STP	standard temperature (60°F) and pressure (29.92 inches of mercury)
THC, TOC	total hydrocarbons, total organic compounds
TVP	true vapor pressure

USEPA	United States Environmental Protection Agency
VE	visible emissions
VRS	vapor recovery system
UCSB	University of California at Santa Barbara
w.c.	water column

1.0 INTRODUCTION

1.1. *Purpose*

General. The Santa Barbara County Air Pollution Control District (“District”) began issuing permits to the University of California at Santa Barbara (UCSB) in the early 1980s for external combustion units (e.g., boilers, water heaters). Due to the loss of rule exemptions and new rules and regulations, an increased number of external combustion units and internal combustion engines have since been issued permits. This Part 70 permit consolidates all active permits associated with the facilities that comprise the UCSB stationary source. There are external combustion units, internal combustion engines, spray booths and gasoline dispensing facilities subject to this Part 70 permit.

Part 70 Permitting. This is the fourth renewal of the Part 70 permit for the UCSB stationary source (SSID = 2795), which is a major source for NO_x and CO, based on a federal potential to emit greater than 100 tons per year of NO_x and CO. The conditions listed in this permit are based on federal, state and local rules and requirements. Sections 9.A, 9.B and 9.C of this permit are enforceable by the District, the United States Environmental Protection Agency (USEPA) and the public since these sections are federally enforceable under Part 70. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit that part of the permit referred to is federally enforceable. Conditions listed in Section 9.D are only enforceable by the District.

Pursuant to the stated aims of Title V of the CAAA (Clean Air Act Amendment) of 1990 (i.e., the Part 70 operating permit program), this permit has been designed to meet two objectives. First, compliance with all conditions in this permit would ensure compliance with all federally-enforceable requirements for the facility. Second, the permit would be a comprehensive document to be used as a reference by the permittee, the regulatory agencies and the public to assess compliance.

1.2. *Stationary Source/Facility Overview*

- 1.2.1 Stationary Source/Facility Overview: This facility consists of a university campus located in Santa Barbara, CA. Natural gas-fired external combustion equipment is used for space heating and diesel-fired internal combustion engines are used for emergency backup power. These are the primary pollutant-emitting sources subject to this permit.
- 1.2.2 Facility New Source Review Overview: A list of the permits that have been incorporated into this Part 70 permit is provided in Attachment 10.9. Those permit actions which are subject to New Source Review are identified in Attachment 10.9.

1.3 Emission Sources

The emission sources associated with this facility consist of the following:

- 48 Internal Combustion Engines (backup generators)
- 90 External Combustion Units (boilers, water heaters)
- Two (2) Gasoline Fueling Stations
- Two (2) Spray booths

Section 4.0 of the permit provides the District's engineering analysis of these emission sources. Section 5.0 of the permit describes the allowable emissions from each permitted emissions unit. A list of all permitted equipment is provided in Attachment 10.1.

1.4 Emission Control Overview

- 1.4.1 Internal Combustion Engines: Emissions from existing diesel-fired emergency-standby IC engines are controlled by limiting the hours of maintenance and testing operations. Newly installed emergency standby IC engines must also be certified to meet current EPA Tier standards. There are no add-on emission controls associated with any of the internal combustion engines.
- 1.4.2 External Combustion Units: The following units are equipped with Low-NO_x burners:
Devices: #114251, #114252, #386140, #386141, #386142, #386143, #386144, #386145, #387629, #388327, #388328, #388329, #388940, #388933, #388935, #388936, #388937, #388938, #388939, #388941, #388948, #393008, #393011, #393012, #393026, #393027, #393029, #393030, #393200, #393266, #393267, #393268, #393269, #393270, #393439, #393440, #393441, #393442, #393443, #393445, #393446, #393447, #393448, #393593, #393594, #393622, #393623, #393624, #393625, #393626, #394764, #394908, #394910, #395683, #395684, #398589, #398590, #398591, and #398592.
- 1.4.3 Gasoline Tank: The aboveground storage tank at the Marine Biotech Lab, building 555 uses a balance type vapor recovery system (VRS) to control ROC vapor emissions. Only Phase I controls are utilized because the tank is only used to fuel marine vessels. The tank is classified as protected per the executive orders found in PTO 15539 by CARB. Protected ASTs are constructed with a primary (inner) tank encased by a secondary (outer) tank, with a layer of insulating material (at least three inches thick) between the primary and secondary walls. UCSB has also installed CARB EVR-certified P/V valves in order to comply with CARB standing loss control vapor recovery requirements for vapor recovery systems used on aboveground gasoline storage tanks.
- 1.4.4 Spray Booths: The spray booths in the paint shop and building 223 are equipped with overspray filters. ROC emissions are controlled by using compliant coatings required by District Rules 330 and 351. Some reduction in particulates is achieved via filters in the spray booths.

1.5 Offsets/Emission Reduction Credit Overview

The UCSB stationary source exceeds the NO_x offset threshold of Regulation VIII. NO_x offsets were required for the four Lochinvar boilers at Building 657 (DIDs 398589 through 398592) permitted under ATC 16116 and ATC-Mod 16116-01 and incorporated through PTO 16116. See Section 7.4, Tables 7.1 and 7.2, and Condition 9.C.9.

1.6 *Part 70 Operating Permit Overview*

- 1.6.1 Federally-Enforceable Requirements: All federally enforceable requirements are listed in 40 CFR Part 70.2 (Definitions) under “applicable requirements.” These include all SIP-approved District Rules, all conditions in District-issued Authority to Construct permits issued pursuant to SIP-approved District Rules, and all conditions applicable to major sources under federally promulgated rules and regulations. All these requirements are enforceable by the public under CAAA. (See Section 3 for a list of the federally enforceable requirements).
- 1.6.2 Insignificant Emissions Units: Insignificant emission units are defined under District Rule 1301 as any regulated air pollutant emitted from the unit, excluding HAPs, that are less than 2 tons per year based on the unit’s potential to emit and any HAP regulated under section 112(g) of the Clean Air Act that does not exceed 0.5 ton per year based on the unit’s potential to emit. Insignificant activities were listed in the Part 70 application with supporting calculations. Applicable requirements may apply to insignificant units.
- 1.6.3 Federal Potential to Emit: The federal potential to emit (PTE) of a stationary source does not include fugitive emissions of any pollutant, unless the source is: (1) subject to a federal NSPS/NESHAP requirement which was in effect as of August 7, 1980, or (2) included in the 29-category source list specified in 40 CFR 51.166 or 52.21. The federal PTE does include all emissions from any insignificant emissions units. See Table 5.10 for the federal PTE for this source.
- 1.6.4 Permit Shield: The operator of a major source may be granted a shield: (a) specifically stipulating any federally-enforceable conditions that are no longer applicable to the source and (b) stating the reasons for such non-applicability. The permit shield must be based on a request from the source and its detailed review by the District. Permit shields cannot be indiscriminately granted with respect to all federal requirements. UCSB has made no requests for a permit shield.
- 1.6.5 Alternate Operating Scenarios: A major source may be permitted to operate under different operating scenarios, if appropriate descriptions of such scenarios are included in its Part 70 permit application and if such operations are allowed under federally-enforceable rules. UCSB has made no requests for alternative operating scenarios.
- 1.6.6 Compliance Certification: Part 70 permit holders must certify compliance with all applicable federally-enforceable requirements including permit conditions. Such certification must accompany each Part 70 permit application and be re-submitted annually before March 1st or on a more frequent schedule specified in the permit. A “responsible official” of the owner/operator company whose name and address is listed prominently in the Part 70 permit signs each certification. (See Section 1.6.10 below)
- 1.6.7 Permit Reopening: Part 70 permits are re-opened and revised if the source becomes subject to a new rule or new permit conditions are necessary to ensure compliance with existing rules. The permits are also re-opened if they contain a material mistake or the emission limitations or other conditions are based on inaccurate permit application data.
- 1.6.8 Hazardous Air Pollutants (HAPs): The requirements of Part 70 permits also regulate emissions of HAPs from major sources through the imposition of maximum achievable control technology (MACT), where applicable. The federal PTE for HAP emissions from a source is computed to determine MACT or any other rule applicability. (See Section 5.4)

1.6.9 Compliance Assurance Monitoring (CAM): The CAM rule became effective on April 22, 1998. This rule affects emission units at the source subject to a federally-enforceable emission limit or standard that uses a control device to comply with the emission standard, and either pre-control or post-control emissions exceed the Part 70 source emission thresholds. Sources subject to CAM Rule must submit a CAM Rule Compliance Plan along with their Part 70 operating permit renewal applications. The District has determined that no emissions unit at this facility is subject to CAM Rule.

1.6.10 Responsible Official: The designated responsible official and his/her mailing address is:

Renée Bahl, Associate Vice Chancellor,
Design, Facilities, and Safety Services
UCSB Office of the Vice Chancellor
University of Santa Barbara, CA 93106

2.0 DESCRIPTION OF PROJECT AND PROCESS DESCRIPTION

2.1 Project Ownership: Regents of the University of California.

2.2 Geographic Location: The University of California at Santa Barbara is located just north of the City of Santa Barbara near Goleta, California on 1,055 acres adjacent to the Pacific Ocean.

2.3 Facility Description: The facility consists of various buildings utilized for student education, research, housing, athletics and administrative services. Utility services include backup emergency power and heating systems. These utilities service sources are the primary equipment included in this permit. See Attachment 10.10 for facility maps.

2.4 Equipment Description: Only equipment that has a potential to emit air contaminants, as determined by the District, is subject to this operating permit. This permit includes emission, operation, monitoring, recordkeeping, and reporting requirements for the equipment subject to this permit. See Attachment 10.1 for a list of equipment.

3.0 REGULATORY REVIEW

All enforceable requirements are listed in this section. These include all District Rules, all conditions in the District-issued Authority to Construct permits and applicable federally promulgated rules and regulations.

3.1 *Permit Exemptions Claimed*

The following equipment, operations and activities are exempt from permit. A list of associated equipment is provided in Attachment 10.12, *Permit Exempt Equipment*.

Table 3.1: Permit Exemptions Claimed

Insignificant Equipment/Emissions Description	Basis for Exemption
Engines used in aircraft, locomotive, marine and motor vehicles as defined in Section 670 of the California Vehicle Code, but not including any engine mounted on such vehicles that would otherwise require a permit under the provisions of SBCAPCD Rules and Regulations	202 F (a), (b), (c)
Spark ignition piston-type internal combustion engines used exclusively for emergency electrical power generation or emergency pumping of water for flood control or firefighting if the engine operates no more than 200 hours per calendar year	202 F (d)
Compression ignition engines with a rated brake horsepower of less than 50 bhp	202 F (e)
Spark ignition piston-type internal combustion engines with a rated brake horsepower of less than 50 bhp	202 F (f)
Combustion equipment with a maximum heat input of less than or equal to two (2) million British thermal units per hour is exempt from permit requirements if fired exclusively with PUC quality natural gas or LPG which meets Gas Processors Association standards.	202. G 1
Abrasive blast equipment	202 H (1), (2), (3)
Coating applications equipment and operations	202 I (1), (2), (3), (4), (5), (6)
Food Processing and preparation equipment	202 K (1), (2), (3), (4), (5), (6), (7)
Glass, ceramic, metallurgical processing and fabrication equipment and operations. Kilns used for firing ceramic ware.	202 M (3)
Laboratory equipment and operations used exclusively for chemical or physical analysis and bench scale laboratory equipment	202 N (1)
Material working and handling equipment and operations used for buffing (except automatic or semi-automatic tire buffers) or polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon or graphite.	202 O (3)
Application of architectural coating in the repair and maintenance of a stationary structure	202 D (14)
Solvent cleaning operations including: solvent cleaning containers less than 1.00 gallon, wipe cleaning operations using less than 55 gallons/year, and solvent cleaning associated with janitorial cleaning, including graffiti removal	202 U (1), (3), (5)

3.2. Compliance with Applicable Federal Rules and Regulations

- 3.2.1 40 CFR Parts 51/52 {New Source Review (Nonattainment Area Review and Prevention of Significant Deterioration)}: UCSB was originally permitted in the 1980s under District Rule 205.C. That rule was superseded by District Regulation VIII (*New Source Review*) in April 1997, which was subsequently revised in August 2016. Compliance with Regulation VIII ensures that this facility will comply with federal NSR requirements.
- 3.2.2 40 CFR Part 60 {New Source Performance Standards}: Subpart IIII applies to owners and operators of stationary compression ignition engines that are constructed, modified, or reconstructed after July 11, 2005. Engines subject to this subpart are required to meet emission standards specific to the model year of the engine. Several engines are subject to this subpart and meet these standards.
- 3.2.3 40 CFR Part 63 Subpart ZZZZ {National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating internal Combustion Engines}: Subpart ZZZZ applies to owners and operators of stationary reciprocating IC engines (RICE). For area sources of HAP emissions, stationary RICE are “existing” if construction or reconstruction commenced before June 12, 2006. Engines that are not categorized as existing are considered “new”. HAP emissions associated with the UCSB stationary source are less than 1.0 tpy therefore it qualifies as an area source. Existing (construction commenced before June 12, 2006) institutional emergency stationary RICE located at UCSB are not subject to Subpart ZZZZ per 40 CFR 63.6585(f)(3). Emergency stationary RICE at UCSB for which construction commenced on or after June 12, 2006 are new affected sources that meet the requirements of Subpart ZZZZ by complying with 40 CFR Part 60 Subpart IIII, and no further requirements apply under Subpart ZZZZ per 40 CFR 63.6590(c)(1).
- 3.2.4 40 CFR Part 63 Subpart HHHHHH: On January 9, 2008, the EPA adopted National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (Subpart HHHHHH). This regulation applies to auto body shops as well as businesses that spray-apply coatings to metal or plastic, or use methylene chloride (MeCl) to do paint stripping. For more information about the regulation, see the District webpage here: <https://www.ourair.org/paint-strip-surface-coat/>
- 3.2.5 40 CFR Part 70 {Operating Permits}: UCSB is a major source for NO_x and CO. Per UCSB’s application, they applied for a Part 70 permit according to the timelines of Rule 1304. UCSB has not requested to become a Rule 370 source.

3.3. Compliance with Applicable State Rules and Regulations

- 3.3.1 Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition (CI) Engines (CCR Section 93115, Title 17): This ATCM applies for all stationary diesel-fueled engines rated 50 brake horsepower (bhp) and greater at this facility. On March 17, 2005, District Rule 202 was revised to remove the compression-ignited engine (e.g. diesel) permit exemption for units rated 50 bhp and greater to allow the District to implement the State’s ATCM for Stationary Compression Ignition Engines.

Owners of in-use stationary diesel internal combustion engines (DICE) for emergency use are subject to the requirements of Table 3 of the ATCM. In-use emergency fire pump engines may operate the number of hours necessary to comply with the testing requirements of the National

Fire Protection Association standards (NFPA-25). By limiting annual maintenance and testing hours, these engines are not required to meet any new emission standards (e.g. engine retrofits are not required). The ATCM does require that the hours of operation be monitored with a non-resettable hour meter, that CARB Diesel Fuel be used (or approved alternative) and that detailed records of use be recorded and reported.

Owners and operators of new stationary DICE engines for emergency use are subject to the emission standards of Table 1 of the ATCM and the operating requirements of Section 93115.6. Owners and operators of new stationary DICE fire pump engines are subject to the emission standards of Table 2 of the ATCM and the operating requirements of Section 93115.6.

3.4. Compliance with Applicable Local Rules and Regulations

Applicability Tables: These tables are based on data available from the District's administrative files and from the UCSB Part 70 Operating Permit application. Table 3.2 lists the federally-enforceable District promulgated rules that are "generic" and apply to the facility. Table 3.3 lists the federally-enforceable District promulgated rules that are "unit-specific". Table 3.4 lists non federally-enforceable District rules.

The District NSR rule which has been approved into the State Implementation Plan (SIP) is Rule 205.C. The current District NSR rule is 802. Rule 802 has been submitted to the EPA, but it has not yet been approved into the SIP. The EPA's guidance in situations such as this, where a rule has been updated but not yet approved into the SIP, is to rely on the current rule as long as it is more stringent than the previous rule. Since Rule 802 is an updated NSR rule that was adopted 18 years after Rule 205.C, the district relies on Rule 802 when issuing permits.

3.4.1 Rules Requiring Further Discussion: This section provides a more detailed discussion regarding the applicability and compliance of certain rules for UCSB:

Rule 201 - Permits Required: This rule applies to any person who builds, erects, alters, replaces, operates or uses any article, machine, equipment, or other contrivance which may cause the issuance of air contaminants. The equipment included in this permit is listed in Attachment 10.1. An Authority to Construct is required to return any de-permitted equipment to service and may be subject to New Source Review.

Rule 210 - Fees: Pursuant to Rule 201.G, District permits are reevaluated every three years. This includes the re-issuance of the underlying PTO. Also included are the PTO fees. The fees for this facility are based on District Rule 210, Fee Schedule A; however Part 70 specific costs are based on cost reimbursement provisions (Rule 210.C). The fee calculations for this permit are included as an attachment to the permit.

Rule 301 - Circumvention. This rule prohibits the concealment of any activity that would otherwise constitute a violation of Division 26 (Air Resources) of the California H&SC and the District rules and regulations. To the best of the District's knowledge, UCSB is operating in compliance with this rule.

Rule 302 - Visible Emissions. This rule prohibits the discharge from any single source any air contaminants for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade than a reading of 1 on the Ringelmann Chart or of such opacity to obscure an observer's view to a degree equal to or greater than a reading of 1 on the Ringelmann

Chart.

Rule 303 - Nuisance. This rule prohibits UCSB from causing a public nuisance due to the discharge of air contaminants. This rule is included in the SIP.

Rule 309 - Specific Contaminants. Under Section "A", no source may discharge sulfur compounds and combustion contaminants in excess of 0.2 percent as SO₂ (by volume) and 0.3 gr/scf (at 12% CO₂) respectively. All diesel powered piston IC engines have the potential to exceed the combustion contaminant limit if not properly maintained.

Rule 311 - Sulfur Content of Fuel. This rule limits the sulfur content of fuels combusted at UCSB to 0.5 percent (by weight) for liquids fuels and 50 gr/100 scf (calculated as H₂S) {or 796 ppmvd} for gaseous fuels. Section B and Section C of this rule limit the sulfur content of gaseous fuels to no more than 239 ppmv as H₂S. The permittee uses CARB certified diesel (total sulfur content of 0.0015 percent by weight) and PUC quality natural gas (total sulfur content of 80 ppmv and H₂S content of 4 ppmv) which comply with this rule.

Rule 321 – Solvent Cleaning Machines and Solvent Cleaning. This Rule applies to any non-janitorial solvent cleaning operations at UCSB not specifically subject to or exempt from District Rules 330, 351 or 353. The Rule sets equipment standards and ROC content limits for various solvent cleaning activities. Compliance with this rule is based on adherence with the requirements of permit condition 9.C.3.

Rule 323.1 - Architectural Coatings: This rule sets the standards for any architectural coating that is supplied, sold, offered for sale, or manufactured for use within the District.

Rule 330 - Surface Coating of Metal Parts and Products. This rule is applicable to any person who manufactures, applies or specifies the use of surface coatings for metal parts and products. UCSB employs surface coating operations throughout the facility. Compliance with this rule is based on adherence to the requirements of permit condition 9.C.3.

Rule 333 - Control of Emissions from Reciprocating Internal Combustion Engines: This rule applies to all engines with a rated brake horsepower of 50 or greater. Permit exempt engines are not subject to this rule. The emergency standby IC engines at the facility are compression ignition emergency standby engines and are exempt from the provisions of the Rule per Section B.1.d.

Rule 351 - Surface Coating of Wood Products. This rule applies to the application of coating to, and surface preparation of wood products. UCSB employs surface coating operations throughout the facility. Compliance with this rule is based on adherence to the requirements of permit condition 9.C.3.

Rule 352 - Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters. This rule applies to any person who manufactures, supplies, sells, offers for sale, installs, or solicits the installation of any natural gas-fired fan-type central furnaces or water heaters for use within the District.

Rule 353 – Adhesives and Sealants. This Rule is applicable to any person who supplies, sells, offers for sale, distributes, manufactures, solicits the application of, or uses any adhesive product, sealant product, or associated solvent for use within the District. The rule sets ROC limits for various product categories and activities. The rule is not applicable to adhesive or sealant

products that contain less than 20 grams of ROC per liter or sold in containers of 16 fluid ounces or less.

Rule 360 – Boilers, Water Heaters, and Process Heaters (0.075 – 2 MMBtu/hr).

This rule applies to any person who supplies, sells, offers for sale, installs, modifies, or solicits the installation or modification of any boiler, water heater, steam generator or process heater for use within the District with a rated heat input capacity greater than or equal to 75,000 British thermal units per hour up to and including 2,000,000 British thermal units per hour. The units subject to this rule are identified in Attachment 10.2. (*Permitted Equipment Combustion Equipment Requirements*).

Rule 361- Boilers, Steam Generators, and Process Heaters (Between 2 -5 MMBtu/hr).

This rule applies to any boiler, steam generator, or process heater with a rated heat input capacity greater than 2 million British thermal units per hour and less than 5 million British thermal units per hour. The units subject to this rule are identified in Attachment 10.2. (*Permitted Equipment Combustion Equipment Requirements*).

Rule 505 - Breakdown Conditions. This rule describes the procedures that UCSB must follow when a breakdown condition occurs to any emissions unit associated with the UCSB facility. A breakdown condition is defined as an unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment which causes a violation of an emission limitation or restriction prescribed in District Rules and Regulations, or by State law, or (2) any in-stack continuous monitoring equipment, provided such failure or malfunction:

- a. Is not the result of neglect or disregard of any air pollution control law or rule or regulation;
- b. Is not the result of an intentional or negligent act or omission on the part of the owner or operator;
- c. Is not the result of improper maintenance;
- d. Does not constitute a nuisance as defined in Section 41700 of the Health and Safety Code;
- e. Is not a recurrent breakdown of the same equipment.

Rule 603 - Emergency Episode Plans: Section A of this rule requires the submittal of *Stationary Source Curtailment Plan* for all stationary sources that can be expected to emit more than 100 tons per year of hydrocarbons, nitrogen oxides, carbon monoxide or particulate matter. UCSB received approval of its Emergency Episode Plan on August 21, 2015.

Rule 810 - Federal Prevention of Significant Deterioration: This rule was adopted January 20, 2011 to incorporate the federal Prevention of Significant Deterioration rule requirements into the District's rules and regulations. Future projects at the facility will be evaluated to determine whether they constitute a new major stationary source or a major modification.

3.5. Compliance History

This section contains a summary of the compliance history for this facility since the issuance of the prior permit renewal and was obtained from documentation contained in the District's

Administrative files.

3.5.1 *Facility Inspections.* Inspections of UCSB are conducted frequently for compliance with permit conditions and ongoing routine activities. A listing of the inspections of the UCSB for the past three years is too extensive to include in this permit but is available in the District files for this source.

3.5.2 This section contains a summary of all enforcement actions issued to this facility in the last three years. This facility is inspected on a routine basis.

VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION	LOCATION OF VIOLATION
NOV	13549	12/06/2023	Failing to submit Title V Permit Renewal Application 6 months prior to the date of Permit expiration (February 1, 2024)	UCSB Stationary Source
NOV	13832	10/29/2024	Failing to maintain and submit fuel usage records in the 1H24 CVR for Device IDs 114251, 114252, 393447, 393448, 393625, 393626, 395683, 395684	UCSB Stationary Source
NOV	14326	12/23/2025	Failed to maintain and submit Fuel Usage Records for DIDs: 114251, 114252, 395683, 395684 (two meters, 4 boilers)	UCSB Stationary Source
NOV	14358	2/12/2026	A violation of Air Pollution Control District (APCD) Rule 201 for failing to apply for a permit to operate a semiconductor operation that utilizes any amount of fluorinated gases.	UCSB Stationary Source

Table 3.2: Generic Federally Enforceable District Rules

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 101</u> : Compliance by Existing Installations	All emission units	Emission of pollutants	June 1981
<u>RULE 102</u> : Definitions	All emission units	Emission of pollutants	August 25, 2016
<u>RULE 103</u> : Severability	All emission units	Emission of pollutants	October 23, 1978
<u>RULE 105</u> : Applicability	All emission units	Emission of pollutants	July 30, 1991
<u>RULE 201</u> : Permits Required	All emission units	Emission of pollutants	June 19, 2008
<u>RULE 202</u> : Exemptions to Rule 201	Applicable emission units	Insignificant activities/emissions, per size/rating/function	August 25, 2016
<u>RULE 203</u> : Transfer	All emission units	Change of ownership	April 17, 1997
<u>RULE 204</u> : Applications	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>RULE 205</u> : Standards for Granting Permits	All emission units	Emission of pollutants	April 17, 1997
<u>RULE 206</u> : Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules	October 15, 1991
<u>RULE 208</u> : Action on Applications – Time Limits	All emission units. Not applicable to Part 70 permit applications.	Addition of new equipment or modification to existing equipment.	April 17, 1997
<u>RULE 212</u> : Emission Statements	All emission units	Administrative	October 20, 1992
<u>RULE 301</u> : Circumvention	All emission units	Any pollutant emission	October 23, 1978
<u>RULE 302</u> : Visible Emissions	All emission units	Emissions that can injure, damage or offend.	June 1981
<u>RULE 303</u> : Nuisance	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 305</u> : Particulate Matter - Southern Zone	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 307</u> : Particulate Matter Emission Weight Rate - Southern Zone	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 309</u> : Specific Contaminants	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 310</u> : Odorous Organic Sulfides	All emission units	Emissions that can injure, damage or offend.	October 23, 1978

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 311</u> : Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur	October 23, 1978
<u>RULE 315</u> : Gasoline Specifications	Gasoline distributors, and sellers on UCSB	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 316</u> : Storage and Transfer of Gasoline	Gasoline distributors, and sellers on UCSB	Emissions that can injure, damage or offend.	January 31, 2011
<u>RULE 317</u> : Organic Solvents	Materials containing organic solvents	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 318</u> : Vacuum Producing Devices or Systems - Southern Zone	Vacuum Producing Devices or Systems	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 321</u> : Solvent Cleaning Operations	Materials containing organic solvents	Emissions that can injure, damage or offend.	June 21, 2012
<u>RULE 322</u> : Metal Surface Coating Thinner and Reducer	Metal Surface Coating Operations.	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 323</u> : Architectural Coatings	Architectural Coating Operations	Emissions that can injure, damage or offend.	November 15, 2011
<u>RULE 323.1</u> : Architectural Coatings	Architectural Coating Operations	Emissions that can injure, damage or offend.	June 19, 2014
<u>RULE 324</u> : Disposal and Evaporation of Solvents	Materials containing organic solvents	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 370</u> : Potential to Emit - Limitations for Part 70 Sources	All emission units	Emission of pollutants	January 20, 2011
<u>RULE 505</u> : Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
<u>RULE 603</u> : Emergency Episode Plans	Stationary sources with PTE greater than 100 tpy	UCSB Project PTE is greater than 100 tpy.	June 15, 1981
<u>Rule 801</u> : New Source Review – Definitions and General Requirements	All emission units	Emission of pollutants	August 25, 2016
<u>Rule 802</u> : New Source Review	All emission units	Emission of pollutants	August 25, 2016
<u>Rule 804</u> : Emission Offsets	All emission units	Emission of pollutants	August 25, 2016
<u>Rule 805</u> : Air Quality Impact and Modeling	All emission units	Emission of pollutants	August 25, 2016
<u>Rule 806</u> : Emission Reduction Credits	All emission units	Applications to generate ERC Certificates.	August 25, 2016

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>Rule 810</u> : Federal Prevention of Significant Deterioration (PSD)	All emission units	Emission of pollutants	June 20, 2013
<u>Rule 901</u> : New Source Performance Standards (NSPS)	All emission units	New or modified units	September 20, 2010
<u>Rule 1301</u> : General Information	All emission units	UCSB Project is a major source.	August 25, 2016
<u>Regulation XIII (Rules 1302 – 1305)</u> : Part 70 Permitting	All emission units	UCSB Project is a major source.	November 9, 1993

Table 3.3: Unit Specific Federally Enforceable District Rules

Unit-Specific Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 330</u> : Surface Coating of Metal Parts and Products	Miscellaneous Units	Surface Coating of Metal Parts and Products	June 21, 2012
<u>RULE 333</u> : Control of Emissions from Reciprocating Internal Combustion Engines	See Attachment 10.3	ICE with rated brake horsepower greater than 50.	June 19, 2008
<u>RULE 345</u> : Control of Fugitive Dust from Construction and Demolition Activities	Miscellaneous Units	Fugitive Dust Emissions	January 21, 2010
<u>RULE 349</u> : Polyester Resin Operations	Polyester Resin Operations	Polyester Resin Operations	June 21, 2012
<u>RULE 351</u> : Surface Coating of Wood Products	Miscellaneous Units	Surface Coating of Wood Products	August 20, 1998
<u>RULE 352</u> : Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters	Central Furnaces and Small Water Heaters	Central Furnaces and Small Water Heaters	October 20, 2011
<u>RULE 353</u> : Adhesives and Sealants	Miscellaneous Units	Adhesives and Sealants	June 21, 2012
<u>RULE 354</u> : Graphic Arts	Miscellaneous Units	VOC Limitations	June 28, 1994
<u>RULE 360</u> : Boilers, Water Heaters, and Process Heaters (0.075 – 2 MMBtu/hr)	See Attachment 10.2	Units greater than or equal to 0.075 MMBtu/hr and less than or equal to 2.0 MMBtu/hr.	March 15, 2018
<u>RULE 361</u> : Boilers, Steam Generators, and Process Heaters (Between 2 – 5 MMBtu/hr)	See Attachment 10.2	Units greater than 2.00 MMBtu/hr and less than 5.0 MMBtu/hr.	May 16, 2024

Table 3.4: Non-Federally Enforceable District Rules

Requirement	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 210</u> : Fees	All emission units	Administrative	March 17, 2005
<u>RULES 501-504</u> : Variance Rules	All emission units	Administrative	October 23, 1978
<u>RULES 506-519</u> : Variance Rules	All emission units	Administrative	October 23, 1978

4.0 ENGINEERING ANALYSIS

4.1. General

The engineering analyses performed for this permit were limited to the review of:

- Emission factors and calculation methods for each emissions unit
- Emission control equipment
- Emission source testing and sampling
- Process monitors needed to ensure compliance

4.2. Reciprocating Internal Combustion Engines

4.2.1 General: UCSB operates stationary diesel-fired internal combustion engines which provide power for electrical backup power in times of emergencies or fire suppression.

4.2.2 Emission Calculations: Mass emission estimates are based on the maximum allowed hours for maintenance and testing. Emissions are determined by the following equations:

$$E1, \text{ lb/day} = \text{Engine Rating (bhp)} * \text{EF (g/bhp-hr)} * \text{Daily Hours (hr/day)} * (\text{lb}/453.6 \text{ g})$$

$$E2, \text{ tpy} = \text{Engine Rating (bhp)} * \text{EF (g/bhp-hr)} * \text{Annual Hours (hr/yr)} * (\text{lb}/453.6 \text{ g}) * (\text{ton}/2000 \text{ lb})$$

The emission factors (EF) were chosen based on each engine's rating and age. Unless engine specific data was provided, default emission factors are used as documented on the District's webpage at <https://www.ourair.org/dice-atcm/>. Emission factors are listed in Table 5.6 (*Emission Factors*). Additionally, the engines are subject to daily and annual operating hour limits. Operating hour limits are listed in Table 5.5, (*Equipment Operating Description*).

Firewater Pumps. The firewater pump engines identified in this permit must comply with NFPA 25. Since the NFPA 25 does not specify an upper limit on the hours to comply with the maintenance and testing requirements, in-use firewater pumps do not have a defined potential to emit restricting their operation. The ATCM does require that the hours of operation be monitored with a non-resettable hour meter, that CARB Diesel Fuel be used (or approved alternative) and that detailed records of use be recorded and reported.

4.3 External Combustion Units

General: UCSB operates natural gas-fired combustion units (boilers and water heaters) which provide hot water and space heating needs throughout the facility. Daily emissions are calculated using the daily heat input (MMBtu/day) multiplied by the emission factor (lb/MMBtu). Annual emissions are calculated using the annual heat input (MMBtu/yr) times the emission factor (lb/MMBtu) divided by 2000 lb/ton. Emission factors are listed in Table 5.2 (Emission Factors).

4.4 Surface Coating Operations

General: The majority of coatings containing ROCs are applied to metal and wood surfaces in enclosed booths via paint sprayers, rollers and brushes. An automotive type spray booth is located at the paint shop in building 594 and a Paasche spray booth is located at the Theater and Dance West building 223. Filters on each booth provide some particulate matter and nuisance control. Exhaust makeup fans are used to provide airflow through the air booths. The spray booths are equipped with overspray filters. ROC emissions are controlled by using compliant coatings required by District Rules 323, 330 and 351. Some reduction in particulates is achieved via filters in each spray booth.

Emission Calculations: The current permitted emissions are 2.91 lb/day ROC. Daily permitted emissions are based on material data and usage rates originating from the SBCAPCD Engineering Evaluation for the 1989 issuance of PTO 7601. Detailed calculations can be found in Attachment 10.8.

The annual facility potential to emit was calculated by the following:

$$0.38 \text{ TPY} = (2.91 \text{ lb/day}) * (21.7 \text{ days/month}) * (12 \text{ months/year}) * (1 \text{ ton}/2000 \text{ lb})$$

4.5 Gasoline Dispensing Facility

General: This facility stores and dispenses fuel from two above-ground storage tanks (AST). The dispensing facility at building 555 has a 500 gallon above-ground storage tank and fuel dispenser for marine vessels. Vapors (ROCs) are controlled by a balance type vapor recovery system (VRS), Phase I only. A larger dispensing facility is located at building 336 with a 6,000 gallon above-ground storage tank and two fuel dispensers for vehicles. Vapors from this dispensing facility are controlled using Phase I enhanced vapor recovery (EVR) with attached Phase II vapor recovery system (VRS) for the two nozzles and a Standing Loss Control system.

Emission Calculations: Emission calculations are based on gasoline throughput and standard District emission factors for loading, breathing, refueling, and spillage losses. Detailed calculations can be found in Attachment 10.7.

4.6 Process Monitoring

In many instances, ongoing compliance beyond a single snap shot (source test) is assessed by the use of process monitoring systems. Once these process monitors are in place, it is important that they be well maintained and calibrated to ensure that the required accuracy and precision of the devices are within specifications. The only applicable processing requirements are fuel use monitoring and IC engine operational hour meters.

- 4.6.1 *External Combustion Units.* The volume of fuel gas used in the external combustion units is determined by fuel meter or hours of operation (hrs times heat input rating divided by heating value of the fuel). Alternatively, the permittee has the option of using the *Default Method* (the volume of natural gas fuel used is reported as permitted annual heat input limit for the unit). The specific fuel monitoring method for each unit is listed in Attachment 10.2 (*External Combustion Equipment Operational Requirements*).
- 4.6.2 *Internal Combustion Engines.* Non-resettable hour meters are required on each internal combustion engine to monitor operational hours.

4.7 **Best Available Control Technology (BACT)**

- 4.7.1 *External Combustion Units.* Devices subject to BACT requirements are listed in Table 4.1 below. These boilers are equipped with low-NO_x burners certified to meet the required ppmv NO_x at 3% O₂. BACT was required due to UCSB claiming the Rule 802.B.2 offset exemption for the replacement of failed boilers throughout the facility with Devices #393593, #393594, 393008, #393011, #393012, #394908, #394910, #395683, and #395684. The other devices listed are subject to BACT since their project exceeded Rule 802 BACT thresholds. The following BACT measures apply to these boilers:

Table 4.1: External Combustion BACT

Emission Unit/Process	Control Technology	Pollutant	Performance Standard ^a
Device #388933	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388935	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388936	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388937	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388938	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388939	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388940	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂
Device #388941	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 50 ppmvd at 3% O ₂

Device #391529	Low-NO _x Gas Burner	NO _x CO	20 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #393008	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #393011	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #393012	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #393593	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #393594	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #394908	Low-NO _x Gas Burner	NO _x CO	9 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #394910	Low-NO _x Gas Burner	NO _x CO	9 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #395683	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #395684	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #398589	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #398590	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #398591	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂
Device #398592	Low-NO _x Gas Burner	NO _x CO	12 ppmvd at 3% O ₂ 100 ppmvd at 3% O ₂

Table Notes:

- (a) The performance standards vary as BACT standards are different for various boiler sizes and have changed over time. A boiler's BACT standards will remain as they were upon its original issuance.

4.7.2 *Internal Combustion Engines.* Device #388947 at the Bioengineering building #512 is subject to BACT requirements. Emissions are controlled by using a Turbocharged/After-cooled Tier 2 certified engine. The combined emissions from the project, which included installation of this generator and several boilers under ATC 14815 triggered BACT requirements for NO_x.

Table 4.2: Internal Combustion Engine BACT

Emission Unit/Process	Control Technology	Pollutant	Performance Standard
Device #388947	Turbocharged/After-cooled Tier 2 certified engine	NO _x	4.50 g/bhp-hr NO _x emission factor

Table Notes:

- (a) NO_x as NO₂, SO_x as SO₂, lb/day = pounds per day, tpy = tons per year.
- (b) Device ID # from permit equipment list.
- (c) Emission data that round down to 0.00 has been set to a default of 0.01.

4.8 Source Testing/Tuning/Sampling

- 4.8.1 *Source Testing - External Combustion Equipment.* No specific external combustion units are required to be source tested on a regular basis. However, the District may, at its discretion, require any owner or operator of any unit subject to Rule 361 to perform a source test. Table 4.3 below details the pollutants, parameters and methods for testing. UCSB is required to follow the District *Source Test Procedures Manual* (May 24, 1990 and all updates) for all units required to be tested.
- 4.8.2 *VRS Compliance Testing.* Testing of each gasoline tank's vapor recovery system is required on a routine basis as described in permit condition 9.C.4(c). Test procedures are summarized in Attachment 10.4 (*Vapor Recovery System Testing Requirements*).
- 4.8.3 *Rule 361 Tuning Procedures.* External combustion units subject to this rule are subject to the tuning requirements of the rule. Tune-ups must be performed at least twice every 12 months in accordance with the tuning procedures listed in Attachment 1 to Rule 361. Additionally, new *stacked* Rule 360 units that combined exceed the heat input exemption threshold must be tuned once per year. The units that require tuning per this rule are listed in Attachment 10.2 (*External Combustion Equipment Operational Requirements*).
- 4.8.4 *Sampling Requirements.* There are no sampling requirements for the equipment subject to this permit.

Table 4.3: Source Testing Requirements for the External Combustion Units

Emission & Limit Test Points	Pollutants	Parameters	Test Methods ^(a)
External Combustion Unit Stacks (b)(c)(d)(e)	NO _x CO ROC Sampling Point Det. Stack Gas Flow Rate O ₂ , CO ₂ , Dry MW Moisture Content Stack Temperature	ppmv, lb/hr ppmv, lb/hr ppmv, lb/hr °F	EPA Method 7E, ARB 100 EPA Method 10, ARB 100 EPA Method 18 EPA Method 1 EPA Method 2 or 19 EPA Method 3 EPA Method 4 Calibrated Thermocouple
Fuel Gas ^(h)	Fuel Gas Flow Rate Higher Heating Value Total Sulfur Content Gas Composition	Btu/lb ppmw CHONS%, F-factor	Fuel Gas Meter ^(f) ASTM D 1826 or 3588 ASTM D 1072 or 5504 ^(g) ASTM 1945

Notes:

- (a) Alternative methods may be acceptable on a case-by-case basis.
- (b) The emission rates shall be based on EPA Methods 2 and 4, or Method 19 along with the heat input rate.
- (c) For NO_x, CO and ROC and O₂ a minimum of three 40-minute runs shall be obtained during each test.
- (d) See Attachment 10.2 for the emission standards to be measured against during the test. Measured NO_x and CO shall not exceed the limit specified in the applicable Rule (e.g., Rule 361, Rule 342).
- (e) All emission determinations shall be made in the as-found operating condition, at the maximum attainable firing rate to be approved by the source test plan. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer.
- (f) Fuel meter shall meet the calibration requirements prior to testing.
- (g) Total sulfur content fuel samples shall be obtained using EPA Method 18 with Tedlar Bags (or equivalent) equipped with Teflon tubing and fittings. Turnaround time for laboratory analysis of these samples shall be no more than 24 hours from sampling.
- (h) Fuel gas heating value and composition are optional for Rule 361 applicable units. Sulfur content only required for units not run on utility purchased gas. For units rated at 5 MMBtu/hr or greater, heating value is required in all cases, but gas composition not required if Method 2 is used for stack flow.

4.9 ***Part 70 Engineering Review: Hazardous Air Pollutant Emissions***

Hazardous air pollutant (HAP) emissions for UCSB are calculated based on various HAP emission factors and the permitted operational limits and maximum facility design throughputs of this permit. HAP emission factors are shown in Table 5.11. Equipment specific estimated annual HAP emissions, based on the worst-case scenarios listed in Tables 5.1, 5.5, 5.16 and 5.17 of this permit, are shown in Tables 5.12 through 5.14. Total stationary source estimated annual HAP emissions are summarized in Table 5.15. These totals are estimates only, they are not limitations.

4.9.1 Emission Factors for HAP Potential Emissions:

Natural gas fired external combustion units: The HAP emission factors for natural gas fired external combustion equipment (boilers, water heaters, etc.) were obtained from the Ventura County Air Pollution Control District's *AB2588 Combustion Emission Factors* (2001) Natural Gas Fired External Combustion Equipment table for units less than 10 MMBtu/hr, and USEPA's AP-42 Table 1.4-4, *Emission Factors for Metals from Natural Gas Combustion* (1998). Additionally, the lead emission factors were obtained from USEPA's AP-42 Table 1.4-2, *Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion* (1998).

Diesel fired IC engines: The HAP emission factors for diesel fired IC engines were obtained from the Ventura County Air Pollution Control District's *AB2588 Combustion Emission Factors* (2001) Diesel Combustion Factors table for internal combustion. A conservative brake specific fuel consumption of 7,800 Btu/bhp-hr was assumed for all engines.

Gasoline dispensing/storage: The HAP emission factors for gasoline dispensing and storage were obtained from the District's *Gasoline Station Health Risk Assessment Application Form-25T* (2022), Table A2 of Attachment A: ROC and Benzene Emissions.

Coating and solvent usage: HAP emission factors for coating and solvent usage were based on the District's default assumption that the coatings/solvents contain 5% benzene, 5% toluene and 5% xylenes. These HAP emissions will be updated in the next PTO reevaluation after the emission calculations for 2018 are finalized under the AB 2588 program.

5.0 Emissions

Permitted emissions for each emissions unit are based on the equipment's potential-to-emit (as defined by Rule 102). Section 5.1 identifies the pollutants for which each emissions unit was analyzed. Section 5.2 identifies the emission units and emission tables, and section 5.3, greenhouse gas emissions determination methodology. In order to accurately track the emissions from a facility, the District uses a computer database.

5.1. *Permitted Emission Limits - Emission Units*

Each emissions unit associated with the facility was analyzed to determine the potential-to-emit for the following pollutants:

- Nitrogen Oxides (NO_x) ¹
- Reactive Organic Compounds (ROC)
- Carbon Monoxide (CO)
- Sulfur Oxides (SO_x) ²
- Particulate Matter (PM) ³
- Particulate Matter smaller than 10 microns (PM₁₀)
- Particulate Matter smaller than 2.5 microns (PM_{2.5})
- Greenhouse Gases (as CO₂)

5.2. *Permitted Emission Limits - Facility Totals*

Permitted emissions are calculated for both short term (daily) and long term (annual) time periods. Section 4.0 (Engineering Analysis) provides a general discussion of the basic calculation methodologies and emission factors used. The reference documentation for the specific emission calculations, as well as detailed calculation spreadsheets, are provided in Section 4. Tables 5.1 through 5.4 provide the basic operating characteristics, emission factors and emissions for the external combustion equipment. Tables 5.5 through 5.8 provide the basic operating characteristics, emission factors and emissions for the internal combustion engines. Table 5.9 provides the total permitted short-term and permitted long-term emissions.

Daily Scenario:

- Internal Combustion Engines
- External Combustion Equipment
- Gasoline Tanks
- Coating Operations

Annual Scenario:

- Internal Combustion Engines
- External Combustion Equipment
- Gasoline Tanks
- Coating Operations

¹ Calculated and reported as nitrogen dioxide (NO₂)

² Calculated and reported as sulfur dioxide (SO₂)

³ Calculated and reported as all particulate matter smaller than 100 µm

5.3 *Greenhouse Gases*

GHG emissions from combustion sources are calculated using emission factors found in Tables C-1 and C-2 of 40 CFR Part 98 and global warming potentials found in Table A-1 of 40 CFR Part 98. CO₂ equivalent emission factors are calculated for CO₂, CH₄, and N₂O individually, then summed to calculate a total CO₂e emission factor. Annual CO₂e emission totals are presented in short tons.

For IC engines, the emission factor in lb/MMBtu heat input is converted to g/bhp-hr output based on a standard brake-specific fuel consumption.

For natural gas combustion the emission factor is:

$$\begin{aligned}(53.02 \text{ kg CO}_2/\text{MMBtu}) (2.2046 \text{ lb/kg}) &= 116.89 \text{ lb CO}_2/\text{MMBtu} \\(0.001 \text{ kg CH}_4/\text{MMBtu}) (2.2046 \text{ lb/kg})(21 \text{ lb CO}_{2e}/\text{lb CH}_4) &= 0.046 \text{ lb CO}_{2e}/\text{MMBtu} \\(0.0001 \text{ kg N}_2\text{O}/\text{MMBtu}) (2.2046 \text{ lb/kg})(310 \text{ lb CO}_{2e}/\text{lb N}_2\text{O}) &= 0.068 \text{ lb CO}_{2e}/\text{MMBtu} \\ \text{Total CO}_{2e}/\text{MMBtu} &= 116.89 + 0.046 + 0.068 = 117.00 \text{ lb CO}_{2e}/\text{MMBtu}\end{aligned}$$

For diesel fuel combustion the emission factor is:

$$\begin{aligned}(73.96 \text{ kg CO}_2/\text{MMBtu}) (2.2046 \text{ lb/kg}) &= 163.05 \text{ lb CO}_2/\text{MMBtu} \\(0.003 \text{ kg CH}_4/\text{MMBtu}) (2.2046 \text{ lb/kg})(21 \text{ lb CO}_{2e}/\text{lb CH}_4) &= 0.139 \text{ lb CO}_{2e}/\text{MMBtu} \\(0.0006 \text{ kg N}_2\text{O}/\text{MMBtu}) (2.2046 \text{ lb/kg})(310 \text{ lb CO}_{2e}/\text{lb N}_2\text{O}) &= 0.410 \text{ lb CO}_{2e}/\text{MMBtu} \\ \text{Total CO}_{2e}/\text{MMBtu} &= 163.05 + 0.139 + 0.410 = 163.60 \text{ lb CO}_{2e}/\text{MMBtu}\end{aligned}$$

Converted to g/hp-hr:

$$(163.60 \text{ lb CO}_{2e}/\text{MMBtu})(453.6 \text{ g/lb})(7500 \text{ Btu/hp-hr})/1,000,000 = 556.58 \text{ g/hp-hr as CO}_{2e}$$

5.4 *Part 70: HAP Potential to Emit Emission Estimates*

Estimated emissions of hazardous air pollutants are computed for informational purposes only. HAP emission factors are shown in Table 5.11. Equipment specific estimated annual HAP emissions are shown in Tables 5.12, 5.13 and 5.14. Total stationary source estimated annual HAP emissions are summarized in Table 5.15.

Table 5.1: Operating Equipment Description - External Combustion

Building	Operator ID	Device ID	Fuel Type	Rating (MMBtu/hr)	Limit (MMBtu/day)	Limit (MMBtu/qtr)	Limit (MMBtu/yr)	HHV (Btu/scf)	Sulfur (ppmv S)
Bldg. 221	Boiler #B1	114076	NG	2.070	49.680	4,533	18,133	1,050	Bldg. 221
Bldg. 225	Boiler #B1	388327	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 225
Bldg. 225	Boiler #B2	388328	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 225
Bldg. 225	Boiler #B3	388329	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 225
Bldg. 235	Boiler #B1	394764	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 235
Bldg. 235	Boiler B2	393445	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 235
Bldg. 266	Boiler B1	393026	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 266
Bldg. 266	Boiler B2	393027	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 266
Bldg. 266	Boiler #B3	114063	NG	3.250	78.000	7,118	18,980	1,050	Bldg. 266
Bldg. 276	Boiler #B1	114128	NG	2.270	54.480	4,971	19,885	1,050	Bldg. 276
Bldg. 276	Boiler #B2	114129	NG	2.270	54.480	4,971	19,885	1,050	Bldg. 276
Bldg. 503	Boiler #B1	388948	NG	1.460	35.040	3,197	12,790	1,050	Bldg. 503
Bldg. 503	Boiler B2	386140	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 503
Bldg. 503	Boiler B3	386141	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 503
Bldg. 503	Boiler B4	386142	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 503
Bldg. 503	Boiler B5	386143	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 503
Bldg. 503	Boiler B6	386144	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 503
Bldg. 503	Boiler B7	386145	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 503
Bldg. 505	Boiler #B1	393029	NG	1.450	34.800	3,176	12,702	1,050	Bldg. 505
Bldg. 505	Boiler #B2	393030	NG	1.450	34.800	3,176	12,702	1,050	Bldg. 505
Bldg. 512	Boiler #B1	394908	NG	4.000	96.000	8,760	35,040	1,050	Bldg. 512
Bldg. 512	Boiler #B2	394910	NG	4.000	96.000	8,760	35,040	1,050	Bldg. 512
Bldg. 512	Boiler #B6	388933	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B7	388935	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B8	388936	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B9	388937	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B10	388938	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B11	388939	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B12	388940	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 512	Boiler #B13	388941	NG	0.398	9.552	872	3,486	1,050	Bldg. 512
Bldg. 515	Boiler #B1	114092	NG	2.500	60.000	5,475	21,900	1,050	Bldg. 515
Bldg. 515	Boiler #B2	114093	NG	2.500	60.000	5,475	21,900	1,050	Bldg. 515
Bldg. 515	Boiler #B3	114094	NG	2.500	60.000	5,475	21,900	1,050	Bldg. 515
Bldg. 516	Boiler #B5	393622	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 516

Building	Operator ID	Device ID	Fuel Type	Rating (MMBtu/hr)	Limit (MMBtu/day)	Limit (MMBtu/qtr)	Limit (MMBtu/yr)	HHV (Btu/scf)	Sulfur (ppmv S)
Bldg. 516	Boiler #B6	393623	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 516
Bldg. 516	Boiler #B7	393624	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 516
Bldg. 520	Boiler #B1	114084	NG	4.600	110.400	10,074	40,296	1,050	Bldg. 520
Bldg. 521	Boiler #B1	114085	NG	2.970	71.280	6,504	26,017	1,050	Bldg. 521
Bldg. 525	Boiler #B1	393439	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 525
Bldg. 525	Boiler #B2	393440	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 525
Bldg. 526	Boiler #B1	387978	NG	1.410	33.840	3,088	12,352	1,050	Bldg. 526
Bldg. 526	Boiler #B2	387979	NG	1.410	33.840	3,088	12,352	1,050	Bldg. 526
Bldg. 528	Boiler #B1	393266	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 528
Bldg. 528	Boiler #B2	387629	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 528
Bldg. 533	Boiler #B1	387980	NG	1.900	45.600	4,161	16,644	1,050	Bldg. 533
Bldg. 533	Boiler #B2	387981	NG	1.900	45.600	4,161	16,644	1,050	Bldg. 533
Bldg. 533	Boiler #B3	387983	NG	1.900	45.600	4,161	16,644	1,050	Bldg. 533
Bldg. 533	Boiler #B4	387982	NG	1.900	45.600	4,161	16,644	1,050	Bldg. 533
Bldg. 534	Boiler B-1	114710	NG	2.970	71.280	6,504	26,017	1,050	Bldg. 534
Bldg. 534	Boiler #B-2	114711	NG	2.970	71.280	6,504	26,017	1,050	Bldg. 534
Bldg. 534	Boiler B1	393444	NG	2.600	62.400	5,694	22,776	1,050	Bldg. 534
Bldg. 544	Boiler #B1	114079	NG	2.600	62.400	5,694	22,776	1,050	Bldg. 544
Bldg. 544	Boiler #B2	114080	NG	2.600	62.400	5,694	22,776	1,050	Bldg. 544
Bldg. 549	Boiler #B1	393267	NG	2.940	70.560	6,439	25,754	1,050	Bldg. 549
Bldg. 549	Boiler #B2	393268	NG	2.940	70.560	6,439	25,754	1,050	Bldg. 549
Bldg. 551	Boiler B1	393269	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 551
Bldg. 551	Boiler B2	393270	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 551
Bldg. 552	Boiler #B1	393593	NG	1.536	36.864	3,364	13,455	1,050	Bldg. 552
Bldg. 552	Boiler #B2	393594	NG	1.536	36.864	3,364	13,455	1,050	Bldg. 552
Bldg. 553	Boiler #B1	393625	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 553
Bldg. 553	Boiler #B2	393626	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 553
Bldg. 554	Boiler #B1	393442	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 554
Bldg. 554	Boiler #B2	393443	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 554
Bldg. 558	Boiler #B1	393447	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 558
Bldg. 558	Boiler #B2	393448	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 558
Bldg. 560	Boiler #B2	387971	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 560
Bldg. 560	Boiler #B1	393441	NG	3.120	74.880	6,833	27,331	1,050	Bldg. 560
Bldg. 561	Boiler #B1	114131	NG	1.530	36.720	3,351	13,403	1,050	Bldg. 561
Bldg. 561	Boiler #B2	114132	NG	1.530	36.720	3,351	13,403	1,050	Bldg. 561
Bldg. 562	Boiler B3	395683	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 562
Bldg. 562	Boiler B2	395684	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 562

Building	Operator ID	Device ID	Fuel Type	Rating (MMBtu/hr)	Limit (MMBtu/day)	Limit (MMBtu/qtr)	Limit (MMBtu/yr)	HHV (Btu/scf)	Sulfur (ppmv S)
Bldg. 562	Boiler B1	114251	NG	1.680	40.320	3,679	14,717	1,050	Bldg. 562
Bldg. 562	Boiler B2	114252	NG	1.680	40.320	3,679	14,717	1,050	Bldg. 562
Bldg. 563	Boiler #B1	114124	NG	4.600	110.400	10,074	40,296	1,050	Bldg. 563
Bldg. 563	Boiler #B2	114125	NG	4.600	110.400	10,074	40,296	1,050	Bldg. 563
Bldg. 564	Boiler #B1	114110	NG	2.100	50.400	4,599	18,396	1,050	Bldg. 564
Bldg. 571	Boiler #B1	114135	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 571
Bldg. 571	Boiler #B2	114136	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 571
Bldg. 571	Boiler #B3	114137	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 571
Bldg. 571	Boiler #B4	114138	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 571
Bldg. 588	Boiler #B1	114127	NG	2.160	51.840	4,730	18,922	1,050	Bldg. 588
Bldg. 588	Boiler #B2	393200	NG	2.000	48.000	4,380	17,520	1,050	Bldg. 588
Bldg. 615	Boiler #B1	393446	NG	2.500	60.000	5,475	21,900	1,050	Bldg. 615
Bldg. 657	Boiler B-2	398589	NG	1.999	47.976	4,378	17,511	1,050	Bldg. 657
Bldg. 657	Boiler B-3	398590	NG	1.999	47.976	4,378	17,511	1,050	Bldg. 657
Bldg. 657	Boiler B-4	398591	NG	1.999	47.976	4,378	17,511	1,050	Bldg. 657
Bldg. 657	Boiler B-5	398592	NG	1.999	47.976	4,378	17,511	1,050	Bldg. 657
Bldg. 860	Boiler B-1	393008	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 860
Bldg. 860	Boiler B-2	393011	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 860
Bldg. 860	Boiler B-3	393012	NG	1.500	36.000	3,285	13,140	1,050	Bldg. 860

Table 5.2: Emission Factors - External Combustion

Building	Operator ID	Device ID	Nox (lb/MMBtu)	ROC (lb/MMBtu)	CO (lb/MMBtu)	Sox (lb/MMBtu)	PM (lb/MMBtu)	PM10 (lb/MMBtu)	PM2.5 (lb/MMBtu)	GHG (lb/MMBtu)
Bldg. 221	Boiler #B1	114076	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 225	Boiler #B1	388327	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 225	Boiler #B2	388328	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 225	Boiler #B3	388329	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 235	Boiler #B1	394764	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 235	Boiler B2	393445	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 266	Boiler B1	393026	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 266	Boiler B2	393027	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 266	Boiler #B3	114063	0.1035	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 276	Boiler #B1	114128	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 276	Boiler #B2	114129	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler #B1	388948	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler B2	386140	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler B3	386141	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler B4	386142	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler B5	386143	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler B6	386144	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 503	Boiler B7	386145	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 505	Boiler #B1	393029	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 505	Boiler #B2	393030	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B1	394908	0.011	0.0054	0.074	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B2	394910	0.011	0.0054	0.074	0.0136	0.0075	0.0075	0.0075	117.00

Building	Operator ID	Device ID	Nox (lb/MMBtu)	ROC (lb/MMBtu)	CO (lb/MMBtu)	Sox (lb/MMBtu)	PM (lb/MMBtu)	PM10 (lb/MMBtu)	PM2.5 (lb/MMBtu)	GHG (lb/MMBtu)
Bldg. 512	Boiler #B6	388933	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B7	388935	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B8	388936	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B9	388937	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B10	388938	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B11	388939	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B12	388940	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 512	Boiler #B13	388941	0.024	0.0054	0.037	0.0136	0.0075	0.0075	0.0075	117.00
Bldg. 515	Boiler #B1	114092	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 515	Boiler #B2	114093	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 515	Boiler #B3	114094	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 516	Boiler #B5	393622	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 516	Boiler #B6	393623	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 516	Boiler #B7	393624	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 520	Boiler #B1	114084	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 521	Boiler #B1	114085	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 525	Boiler #B1	393439	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 525	Boiler #B2	393440	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 526	Boiler #B1	387978	0.098	0.0054	0.082	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 526	Boiler #B2	387979	0.098	0.0054	0.082	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 528	Boiler #B1	393266	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 528	Boiler #B2	387629	0.098	0.0054	0.082	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 533	Boiler #B1	387980	0.098	0.0054	0.082	0.0137	0.0075	0.0075	0.0075	117.00

Building	Operator ID	Device ID	Nox (lb/MMBtu)	ROC (lb/MMBtu)	CO (lb/MMBtu)	Sox (lb/MMBtu)	PM (lb/MMBtu)	PM10 (lb/MMBtu)	PM2.5 (lb/MMBtu)	GHG (lb/MMBtu)
Bldg. 533	Boiler #B2	387981	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 533	Boiler #B3	387983	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 533	Boiler #B4	387982	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 534	Boiler B-1	114710	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 534	Boiler #B-2	114711	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 534	Boiler B1	393444	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 544	Boiler #B1	114079	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 544	Boiler #B2	114080	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 549	Boiler #B1	393267	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 549	Boiler #B2	393268	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 551	Boiler B1	393269	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 551	Boiler B2	393270	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 552	Boiler #B1	393593	0.014	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 552	Boiler #B2	393594	0.014	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 553	Boiler #B1	393625	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 553	Boiler #B2	393626	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 554	Boiler #B1	393442	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 554	Boiler #B2	393443	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 558	Boiler #B1	393447	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 558	Boiler #B2	393448	0.024	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 560	Boiler #B2	387971	0.098	0.0054	0.082	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 560	Boiler #B1	393441	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 561	Boiler #B1	114131	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00

Building	Operator ID	Device ID	Nox (lb/MMBtu)	ROC (lb/MMBtu)	CO (lb/MMBtu)	Sox (lb/MMBtu)	PM (lb/MMBtu)	PM10 (lb/MMBtu)	PM2.5 (lb/MMBtu)	GHG (lb/MMBtu)
Bldg. 561	Boiler #B2	114132	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 562	Boiler B3	395683	0.0146	0.0054	0.0741	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 562	Boiler B2	395684	0.0146	0.0054	0.0741	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 562	Boiler B1	114251	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 562	Boiler B2	114252	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 563	Boiler #B1	114124	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 563	Boiler #B2	114125	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 564	Boiler #B1	114110	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 571	Boiler #B1	114135	0.024	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 571	Boiler #B2	114136	0.024	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 571	Boiler #B3	114137	0.024	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 571	Boiler #B4	114138	0.024	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 588	Boiler #B1	114127	0.098	0.0054	0.0824	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 588	Boiler #B2	393200	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 615	Boiler #B1	393446	0.036	0.0054	0.297	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 657	Boiler B-2	398589	0.0146	0.0054	0.0741	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 657	Boiler B-3	398590	0.0146	0.0054	0.0741	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 657	Boiler B-4	398591	0.0146	0.0054	0.0741	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 657	Boiler B-5	398592	0.0146	0.0054	0.0741	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 860	Boiler B-1	393008	0.014	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 860	Boiler B-2	393011	0.014	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00
Bldg. 860	Boiler B-3	393012	0.014	0.0054	0.074	0.0137	0.0075	0.0075	0.0075	117.00

Table 5.3: Short Term Potential to Emit - External Combustion

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 221	Boiler #B1	114076	0.20	0.01	0.17	0.03	0.02	0.02	0.02	242.19	4.87	0.27	4.09	0.68	0.37	0.37	0.37	5812.56
Bldg. 225	Boiler #B1	388327	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 225	Boiler #B2	388328	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 225	Boiler #B3	388329	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 235	Boiler #B1	394764	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 235	Boiler B2	393445	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 266	Boiler B1	393026	0.07	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.73	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 266	Boiler B2	393027	0.07	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.73	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 266	Boiler #B3	114063	0.34	0.02	0.27	0.04	0.02	0.02	0.02	380.25	8.07	0.42	6.43	1.07	0.59	0.59	0.59	9126.00
Bldg. 276	Boiler #B1	114128	0.08	0.01	0.67	0.03	0.02	0.02	0.02	265.59	1.96	0.29	16.18	0.75	0.41	0.41	0.41	6374.16
Bldg. 276	Boiler #B2	114129	0.08	0.01	0.67	0.03	0.02	0.02	0.02	265.59	1.96	0.29	16.18	0.75	0.41	0.41	0.41	6374.16
Bldg. 503	Boiler #B1	388948	0.04	0.01	0.43	0.02	0.01	0.01	0.01	170.82	0.84	0.19	10.41	0.48	0.26	0.26	0.26	4099.68
Bldg. 503	Boiler B2	386140	0.04	0.01	0.45	0.02	0.01	0.01	0.01	175.50	0.86	0.19	10.69	0.49	0.27	0.27	0.27	4212.00
Bldg. 503	Boiler B3	386141	0.04	0.01	0.45	0.02	0.01	0.01	0.01	175.50	0.86	0.19	10.69	0.49	0.27	0.27	0.27	4212.00
Bldg. 503	Boiler B4	386142	0.04	0.01	0.45	0.02	0.01	0.01	0.01	175.50	0.86	0.19	10.69	0.49	0.27	0.27	0.27	4212.00
Bldg. 503	Boiler B5	386143	0.04	0.01	0.45	0.02	0.01	0.01	0.01	175.50	0.86	0.19	10.69	0.49	0.27	0.27	0.27	4212.00
Bldg. 503	Boiler B6	386144	0.04	0.01	0.45	0.02	0.01	0.01	0.01	175.50	0.86	0.19	10.69	0.49	0.27	0.27	0.27	4212.00
Bldg. 503	Boiler B7	386145	0.04	0.01	0.45	0.02	0.01	0.01	0.01	175.50	0.86	0.19	10.69	0.49	0.27	0.27	0.27	4212.00
Bldg. 505	Boiler #B1	393029	0.03	0.01	0.43	0.02	0.01	0.01	0.01	169.65	0.84	0.19	10.34	0.48	0.26	0.26	0.26	4071.60
Bldg. 505	Boiler #B2	393030	0.03	0.01	0.43	0.02	0.01	0.01	0.01	169.65	0.84	0.19	10.34	0.48	0.26	0.26	0.26	4071.60

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 512	Boiler #B1	394908	0.04	0.02	0.30	0.05	0.03	0.03	0.03	468.00	1.06	0.52	7.10	1.31	0.72	0.72	0.72	11232.00
Bldg. 512	Boiler #B2	394910	0.04	0.02	0.30	0.05	0.03	0.03	0.03	468.00	1.06	0.52	7.10	1.31	0.72	0.72	0.72	11232.00
Bldg. 512	Boiler #B6	388933	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B7	388935	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B8	388936	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B9	388937	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B10	388938	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B11	388939	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B12	388940	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 512	Boiler #B13	388941	0.01	0.00	0.01	0.01	0.00	0.00	0.00	46.57	0.23	0.05	0.35	0.13	0.07	0.07	0.07	1117.58
Bldg. 515	Boiler #B1	114092	0.25	0.01	0.21	0.03	0.02	0.02	0.02	292.50	5.88	0.32	4.94	0.82	0.45	0.45	0.45	7020.00
Bldg. 515	Boiler #B2	114093	0.25	0.01	0.21	0.03	0.02	0.02	0.02	292.50	5.88	0.32	4.94	0.82	0.45	0.45	0.45	7020.00
Bldg. 515	Boiler #B3	114094	0.25	0.01	0.21	0.03	0.02	0.02	0.02	292.50	5.88	0.32	4.94	0.82	0.45	0.45	0.45	7020.00
Bldg. 516	Boiler #B5	393622	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 516	Boiler #B6	393623	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 516	Boiler #B7	393624	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 520	Boiler #B1	114084	0.17	0.02	1.37	0.06	0.03	0.03	0.03	538.20	3.97	0.60	32.79	1.51	0.83	0.83	0.83	12916.80
Bldg. 521	Boiler #B1	114085	0.11	0.02	0.88	0.04	0.02	0.02	0.02	347.49	2.57	0.38	21.17	0.98	0.53	0.53	0.53	8339.76
Bldg. 525	Boiler #B1	393439	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 525	Boiler #B2	393440	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 526	Boiler #B1	387978	0.14	0.01	0.12	0.02	0.01	0.01	0.01	164.97	3.32	0.18	2.77	0.46	0.25	0.25	0.25	3959.28
Bldg. 526	Boiler #B2	387979	0.14	0.01	0.12	0.02	0.01	0.01	0.01	164.97	3.32	0.18	2.77	0.46	0.25	0.25	0.25	3959.28
Bldg. 528	Boiler #B1	393266	0.07	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.73	0.26	14.26	0.66	0.36	0.36	0.36	5616.00

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 528	Boiler #B2	387629	0.15	0.01	0.12	0.02	0.01	0.01	0.01	175.50	3.53	0.19	2.95	0.49	0.27	0.27	0.27	4212.00
Bldg. 533	Boiler #B1	387980	0.19	0.01	0.16	0.03	0.01	0.01	0.01	222.30	4.47	0.25	3.74	0.62	0.34	0.34	0.34	5335.20
Bldg. 533	Boiler #B2	387981	0.19	0.01	0.16	0.03	0.01	0.01	0.01	222.30	4.47	0.25	3.76	0.62	0.34	0.34	0.34	5335.20
Bldg. 533	Boiler #B3	387983	0.19	0.01	0.16	0.03	0.01	0.01	0.01	222.30	4.47	0.25	3.76	0.62	0.34	0.34	0.34	5335.20
Bldg. 533	Boiler #B4	387982	0.19	0.01	0.16	0.03	0.01	0.01	0.01	222.30	4.47	0.25	3.76	0.62	0.34	0.34	0.34	5335.20
Bldg. 534	Boiler B-1	114710	0.11	0.02	0.88	0.04	0.02	0.02	0.02	347.49	2.57	0.38	21.17	0.98	0.53	0.53	0.53	8339.76
Bldg. 534	Boiler #B-2	114711	0.11	0.02	0.88	0.04	0.02	0.02	0.02	347.49	2.57	0.38	21.17	0.98	0.53	0.53	0.53	8339.76
Bldg. 534	Boiler B1	393444	0.09	0.01	0.77	0.04	0.02	0.02	0.02	304.20	2.25	0.34	18.53	0.85	0.47	0.47	0.47	7300.80
Bldg. 544	Boiler #B1	114079	0.09	0.01	0.77	0.04	0.02	0.02	0.02	304.20	2.25	0.34	18.53	0.85	0.47	0.47	0.47	7300.80
Bldg. 544	Boiler #B2	114080	0.09	0.01	0.77	0.04	0.02	0.02	0.02	304.20	2.25	0.34	18.53	0.85	0.47	0.47	0.47	7300.80
Bldg. 549	Boiler #B1	393267	0.11	0.02	0.87	0.04	0.02	0.02	0.02	343.98	2.54	0.38	20.96	0.97	0.53	0.53	0.53	8255.52
Bldg. 549	Boiler #B2	393268	0.11	0.02	0.87	0.04	0.02	0.02	0.02	343.98	2.54	0.38	20.96	0.97	0.53	0.53	0.53	8255.52
Bldg. 551	Boiler B1	393269	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 551	Boiler B2	393270	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 552	Boiler #B1	393593	0.02	0.01	0.11	0.02	0.01	0.01	0.01	179.71	0.52	0.20	2.73	0.51	0.28	0.28	0.28	4313.09
Bldg. 552	Boiler #B2	393594	0.02	0.01	0.11	0.02	0.01	0.01	0.01	179.71	0.52	0.20	2.73	0.51	0.28	0.28	0.28	4313.09
Bldg. 553	Boiler #B1	393625	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 553	Boiler #B2	393626	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 554	Boiler #B1	393442	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 554	Boiler #B2	393443	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 558	Boiler #B1	393447	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 558	Boiler #B2	393448	0.05	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.15	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 560	Boiler #B2	387971	0.15	0.01	0.12	0.02	0.01	0.01	0.01	175.50	3.53	0.19	2.95	0.49	0.27	0.27	0.27	4212.00

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 560	Boiler #B1	393441	0.11	0.02	0.93	0.04	0.02	0.02	0.02	365.04	2.70	0.40	22.24	1.03	0.56	0.56	0.56	8760.96
Bldg. 561	Boiler #B1	114131	0.06	0.01	0.45	0.02	0.01	0.01	0.01	179.01	1.32	0.20	10.91	0.50	0.28	0.28	0.28	4296.24
Bldg. 561	Boiler #B2	114132	0.06	0.01	0.45	0.02	0.01	0.01	0.01	179.01	1.32	0.20	10.91	0.50	0.28	0.28	0.28	4296.24
Bldg. 562	Boiler B3	395683	0.02	0.01	0.11	0.02	0.01	0.01	0.01	175.50	0.53	0.19	2.67	0.49	0.27	0.27	0.27	4212.00
Bldg. 562	Boiler B2	395684	0.02	0.01	0.11	0.02	0.01	0.01	0.01	175.50	0.53	0.19	2.67	0.49	0.27	0.27	0.27	4212.00
Bldg. 562	Boiler B1	114251	0.06	0.01	0.50	0.02	0.01	0.01	0.01	196.56	1.45	0.22	11.98	0.55	0.30	0.30	0.30	4717.44
Bldg. 562	Boiler B2	114252	0.06	0.01	0.50	0.02	0.01	0.01	0.01	196.56	1.45	0.22	11.98	0.55	0.30	0.30	0.30	4717.44
Bldg. 563	Boiler #B1	114124	0.45	0.02	0.38	0.06	0.03	0.03	0.03	538.20	10.82	0.60	9.10	1.51	0.83	0.83	0.83	12916.80
Bldg. 563	Boiler #B2	114125	0.45	0.02	0.38	0.06	0.03	0.03	0.03	538.20	10.82	0.60	9.10	1.51	0.83	0.83	0.83	12916.80
Bldg. 564	Boiler #B1	114110	0.21	0.01	0.17	0.03	0.02	0.02	0.02	245.70	4.94	0.27	4.15	0.69	0.38	0.38	0.38	5896.80
Bldg. 571	Boiler #B1	114135	0.05	0.01	0.15	0.03	0.02	0.02	0.02	234.00	1.15	0.26	3.55	0.66	0.36	0.36	0.36	5616.00
Bldg. 571	Boiler #B2	114136	0.05	0.01	0.15	0.03	0.02	0.02	0.02	234.00	1.15	0.26	3.55	0.66	0.36	0.36	0.36	5616.00
Bldg. 571	Boiler #B3	114137	0.05	0.01	0.15	0.03	0.02	0.02	0.02	234.00	1.15	0.26	3.55	0.66	0.36	0.36	0.36	5616.00
Bldg. 571	Boiler #B4	114138	0.05	0.01	0.15	0.03	0.02	0.02	0.02	234.00	1.15	0.26	3.55	0.66	0.36	0.36	0.36	5616.00
Bldg. 588	Boiler #B1	114127	0.21	0.01	0.18	0.03	0.02	0.02	0.02	252.72	5.08	0.28	4.27	0.71	0.39	0.39	0.39	6065.28
Bldg. 588	Boiler #B2	393200	0.07	0.01	0.59	0.03	0.02	0.02	0.02	234.00	1.73	0.26	14.26	0.66	0.36	0.36	0.36	5616.00
Bldg. 615	Boiler #B1	393446	0.09	0.01	0.74	0.03	0.02	0.02	0.02	292.50	2.16	0.32	17.82	0.82	0.45	0.45	0.45	7020.00
Bldg. 657	Boiler B-2	398589	0.03	0.01	0.15	0.03	0.01	0.01	0.01	233.88	0.70	0.26	3.56	0.66	0.36	0.36	0.36	5613.19
Bldg. 657	Boiler B-3	398590	0.03	0.01	0.15	0.03	0.01	0.01	0.01	233.88	0.70	0.26	3.56	0.66	0.36	0.36	0.36	5613.19
Bldg. 657	Boiler B-4	398591	0.03	0.01	0.15	0.03	0.01	0.01	0.01	233.88	0.70	0.26	3.56	0.66	0.36	0.36	0.36	5613.19
Bldg. 657	Boiler B-5	398592	0.03	0.01	0.15	0.03	0.01	0.01	0.01	233.88	0.70	0.26	3.56	0.66	0.36	0.36	0.36	5613.19
Bldg. 860	Boiler B-1	393008	0.02	0.01	0.11	0.02	0.01	0.01	0.01	175.50	0.50	0.19	2.66	0.49	0.27	0.27	0.27	4212.00
Bldg. 860	Boiler B-2	393011	0.02	0.01	0.11	0.02	0.01	0.01	0.01	175.50	0.50	0.19	2.66	0.49	0.27	0.27	0.27	4212.00

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 860	Boiler B-3	393012	0.02	0.01	0.11	0.02	0.01	0.01	0.01	175.50	0.50	0.19	2.66	0.49	0.27	0.27	0.27	4212.00
Total			7.58	0.96	35.98	2.45	1.34	1.34	1.34	20894.09	181.92	23.14	863.54	58.69	32.14	32.14	32.14	501458.26

Table 5.4: Long Term Potential to Emit - External Combustion

Bldg	Operator ID	Device ID	NOx (ton/ qtr)	ROC (ton/ qtr)	CO (ton/ qtr)	SOx (ton/ qtr)	PM (ton/ qtr)	PM10 (ton/ qtr)	PM2.5 (ton/ qtr)	GHG (ton/ qtr)	NOx (ton/ yr)	ROC (ton/ yr)	CO (ton/ yr)	SOx (ton/ yr)	PM (ton/ yr)	PM10 (ton/ yr)	PM2.5 (ton/ yr)	GHG (ton/ yr)
Bldg. 221	Boiler #B1	114076	0.22	0.01	0.19	0.03	0.02	0.02	0.02	265.20	0.89	0.05	0.75	0.12	0.07	0.07	0.07	1060.79
Bldg. 225	Boiler #B1	388327	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 225	Boiler #B2	388328	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 225	Boiler #B3	388329	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 235	Boiler #B1	394764	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 235	Boiler B2	393445	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 266	Boiler B1	393026	0.08	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.32	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 266	Boiler B2	393027	0.08	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.32	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 266	Boiler #B3	114063	0.37	0.02	0.29	0.05	0.03	0.03	0.03	416.37	0.98	0.05	0.78	0.13	0.07	0.07	0.07	1110.33
Bldg. 276	Boiler #B1	114128	0.09	0.01	0.74	0.03	0.02	0.02	0.02	290.82	0.36	0.05	2.95	0.14	0.07	0.07	0.07	1163.28
Bldg. 276	Boiler #B2	114129	0.09	0.01	0.74	0.03	0.02	0.02	0.02	290.82	0.36	0.05	2.95	0.14	0.07	0.07	0.07	1163.28
Bldg. 503	Boiler #B1	388948	0.04	0.01	0.47	0.02	0.01	0.01	0.01	187.05	0.15	0.03	1.90	0.09	0.05	0.05	0.05	748.19
Bldg. 503	Boiler B2	386140	0.04	0.01	0.49	0.02	0.01	0.01	0.01	192.17	0.16	0.04	1.95	0.09	0.05	0.05	0.05	768.69
Bldg. 503	Boiler B3	386141	0.04	0.01	0.49	0.02	0.01	0.01	0.01	192.17	0.16	0.04	1.95	0.09	0.05	0.05	0.05	768.69
Bldg. 503	Boiler B4	386142	0.04	0.01	0.49	0.02	0.01	0.01	0.01	192.17	0.16	0.04	1.95	0.09	0.05	0.05	0.05	768.69
Bldg. 503	Boiler B5	386143	0.04	0.01	0.49	0.02	0.01	0.01	0.01	192.17	0.16	0.04	1.95	0.09	0.05	0.05	0.05	768.69
Bldg. 503	Boiler B6	386144	0.04	0.01	0.49	0.02	0.01	0.01	0.01	192.17	0.16	0.04	1.95	0.09	0.05	0.05	0.05	768.69
Bldg. 503	Boiler B7	386145	0.04	0.01	0.49	0.02	0.01	0.01	0.01	192.17	0.16	0.04	1.95	0.09	0.05	0.05	0.05	768.69
Bldg. 505	Boiler #B1	393029	0.04	0.01	0.47	0.02	0.01	0.01	0.01	185.77	0.15	0.03	1.89	0.09	0.05	0.05	0.05	743.07
Bldg. 505	Boiler #B2	393030	0.04	0.01	0.47	0.02	0.01	0.01	0.01	185.77	0.15	0.03	1.89	0.09	0.05	0.05	0.05	743.07

Bldg	Operator ID	Device ID	NOx (ton/qtr)	ROC (ton/qtr)	CO (ton/qtr)	SOx (ton/qtr)	PM (ton/qtr)	PM10 (ton/qtr)	PM2.5 (ton/qtr)	GHG (ton/qtr)	NOx (ton/yr)	ROC (ton/yr)	CO (ton/yr)	SOx (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	GHG (ton/yr)
Bldg. 512	Boiler #B1	394908	0.05	0.02	0.32	0.06	0.03	0.03	0.03	512.46	0.19	0.09	1.30	0.24	0.13	0.13	0.13	2049.84
Bldg. 512	Boiler #B2	394910	0.05	0.02	0.32	0.06	0.03	0.03	0.03	512.46	0.19	0.09	1.30	0.24	0.13	0.13	0.13	2049.84
Bldg. 512	Boiler #B6	388933	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B7	388935	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B8	388936	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B9	388937	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B10	388938	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B11	388939	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B12	388940	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 512	Boiler #B13	388941	0.01	0.00	0.02	0.01	0.00	0.00	0.00	50.99	0.04	0.01	0.06	0.02	0.01	0.01	0.01	203.96
Bldg. 515	Boiler #B1	114092	0.27	0.01	0.23	0.04	0.02	0.02	0.02	320.29	1.07	0.06	0.90	0.15	0.08	0.08	0.08	1281.15
Bldg. 515	Boiler #B2	114093	0.27	0.01	0.23	0.04	0.02	0.02	0.02	320.29	1.07	0.06	0.90	0.15	0.08	0.08	0.08	1281.15
Bldg. 515	Boiler #B3	114094	0.27	0.01	0.23	0.04	0.02	0.02	0.02	320.29	1.07	0.06	0.90	0.15	0.08	0.08	0.08	1281.15
Bldg. 516	Boiler #B5	393622	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 516	Boiler #B6	393623	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 516	Boiler #B7	393624	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 520	Boiler #B1	114084	0.18	0.03	1.50	0.07	0.04	0.04	0.04	589.33	0.73	0.11	5.98	0.28	0.15	0.15	0.15	2357.32
Bldg. 521	Boiler #B1	114085	0.12	0.02	0.97	0.04	0.02	0.02	0.02	380.50	0.47	0.07	3.86	0.18	0.10	0.10	0.10	1522.01
Bldg. 525	Boiler #B1	393439	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 525	Boiler #B2	393440	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 526	Boiler #B1	387978	0.15	0.01	0.13	0.02	0.01	0.01	0.01	180.64	0.61	0.03	0.51	0.08	0.05	0.05	0.05	722.57
Bldg. 526	Boiler #B2	387979	0.15	0.01	0.13	0.02	0.01	0.01	0.01	180.64	0.61	0.03	0.51	0.08	0.05	0.05	0.05	722.57
Bldg. 528	Boiler #B1	393266	0.08	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.32	0.05	2.60	0.12	0.07	0.07	0.07	1024.92

Bldg	Operator ID	Device ID	NOx (ton/qtr)	ROC (ton/qtr)	CO (ton/qtr)	SOx (ton/qtr)	PM (ton/qtr)	PM10 (ton/qtr)	PM2.5 (ton/qtr)	GHG (ton/qtr)	NOx (ton/yr)	ROC (ton/yr)	CO (ton/yr)	SOx (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	GHG (ton/yr)
Bldg. 528	Boiler #B2	387629	0.16	0.01	0.13	0.02	0.01	0.01	0.01	192.17	0.64	0.04	0.54	0.09	0.05	0.05	0.05	768.69
Bldg. 533	Boiler #B1	387980	0.20	0.01	0.17	0.03	0.02	0.02	0.02	243.42	0.82	0.04	0.68	0.11	0.06	0.06	0.06	973.67
Bldg. 533	Boiler #B2	387981	0.20	0.01	0.17	0.03	0.02	0.02	0.02	243.42	0.82	0.04	0.69	0.11	0.06	0.06	0.06	973.67
Bldg. 533	Boiler #B3	387983	0.20	0.01	0.17	0.03	0.02	0.02	0.02	243.42	0.82	0.04	0.69	0.11	0.06	0.06	0.06	973.67
Bldg. 533	Boiler #B4	387982	0.20	0.01	0.17	0.03	0.02	0.02	0.02	243.42	0.82	0.04	0.69	0.11	0.06	0.06	0.06	973.67
Bldg. 534	Boiler B-1	114710	0.12	0.02	0.97	0.04	0.02	0.02	0.02	380.50	0.47	0.07	3.86	0.18	0.10	0.10	0.10	1522.01
Bldg. 534	Boiler #B-2	114711	0.12	0.02	0.97	0.04	0.02	0.02	0.02	380.50	0.47	0.07	3.86	0.18	0.10	0.10	0.10	1522.01
Bldg. 534	Boiler B1	393444	0.10	0.02	0.85	0.04	0.02	0.02	0.02	333.10	0.41	0.06	3.38	0.16	0.09	0.09	0.09	1332.40
Bldg. 544	Boiler #B1	114079	0.10	0.02	0.85	0.04	0.02	0.02	0.02	333.10	0.41	0.06	3.38	0.16	0.09	0.09	0.09	1332.40
Bldg. 544	Boiler #B2	114080	0.10	0.02	0.85	0.04	0.02	0.02	0.02	333.10	0.41	0.06	3.38	0.16	0.09	0.09	0.09	1332.40
Bldg. 549	Boiler #B1	393267	0.12	0.02	0.96	0.04	0.02	0.02	0.02	376.66	0.46	0.07	3.82	0.18	0.10	0.10	0.10	1506.63
Bldg. 549	Boiler #B2	393268	0.12	0.02	0.96	0.04	0.02	0.02	0.02	376.66	0.46	0.07	3.82	0.18	0.10	0.10	0.10	1506.63
Bldg. 551	Boiler B1	393269	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 551	Boiler B2	393270	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 552	Boiler #B1	393593	0.02	0.01	0.12	0.02	0.01	0.01	0.01	196.78	0.09	0.04	0.50	0.09	0.05	0.05	0.05	787.14
Bldg. 552	Boiler #B2	393594	0.02	0.01	0.12	0.02	0.01	0.01	0.01	196.78	0.09	0.04	0.50	0.09	0.05	0.05	0.05	787.14
Bldg. 553	Boiler #B1	393625	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 553	Boiler #B2	393626	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 554	Boiler #B1	393442	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 554	Boiler #B2	393443	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 558	Boiler #B1	393447	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 558	Boiler #B2	393448	0.05	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.21	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 560	Boiler #B2	387971	0.16	0.01	0.13	0.02	0.01	0.01	0.01	192.17	0.64	0.04	0.54	0.09	0.05	0.05	0.05	768.69

Bldg	Operator ID	Device ID	NOx (ton/qtr)	ROC (ton/qtr)	CO (ton/qtr)	SOx (ton/qtr)	PM (ton/qtr)	PM10 (ton/qtr)	PM2.5 (ton/qtr)	GHG (ton/qtr)	NOx (ton/yr)	ROC (ton/yr)	CO (ton/yr)	SOx (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	GHG (ton/yr)
Bldg. 560	Boiler #B1	393441	0.12	0.02	1.01	0.05	0.03	0.03	0.03	399.72	0.49	0.07	4.06	0.19	0.10	0.10	0.10	1598.88
Bldg. 561	Boiler #B1	114131	0.06	0.01	0.50	0.02	0.01	0.01	0.01	196.02	0.24	0.04	1.99	0.09	0.05	0.05	0.05	784.06
Bldg. 561	Boiler #B2	114132	0.06	0.01	0.50	0.02	0.01	0.01	0.01	196.02	0.24	0.04	1.99	0.09	0.05	0.05	0.05	784.06
Bldg. 562	Boiler B3	395683	0.02	0.01	0.12	0.02	0.01	0.01	0.01	192.17	0.10	0.04	0.49	0.09	0.05	0.05	0.05	768.69
Bldg. 562	Boiler B2	395684	0.02	0.01	0.12	0.02	0.01	0.01	0.01	192.17	0.10	0.04	0.49	0.09	0.05	0.05	0.05	768.69
Bldg. 562	Boiler B1	114251	0.07	0.01	0.55	0.03	0.01	0.01	0.01	215.23	0.26	0.04	2.19	0.10	0.06	0.06	0.06	860.93
Bldg. 562	Boiler B2	114252	0.07	0.01	0.55	0.03	0.01	0.01	0.01	215.23	0.26	0.04	2.19	0.10	0.06	0.06	0.06	860.93
Bldg. 563	Boiler #B1	114124	0.49	0.03	0.42	0.07	0.04	0.04	0.04	589.33	1.97	0.11	1.66	0.28	0.15	0.15	0.15	2357.32
Bldg. 563	Boiler #B2	114125	0.49	0.03	0.42	0.07	0.04	0.04	0.04	589.33	1.97	0.11	1.66	0.28	0.15	0.15	0.15	2357.32
Bldg. 564	Boiler #B1	114110	0.23	0.01	0.19	0.03	0.02	0.02	0.02	269.04	0.90	0.05	0.76	0.13	0.07	0.07	0.07	1076.17
Bldg. 571	Boiler #B1	114135	0.05	0.01	0.16	0.03	0.02	0.02	0.02	256.23	0.21	0.05	0.65	0.12	0.07	0.07	0.07	1024.92
Bldg. 571	Boiler #B2	114136	0.05	0.01	0.16	0.03	0.02	0.02	0.02	256.23	0.21	0.05	0.65	0.12	0.07	0.07	0.07	1024.92
Bldg. 571	Boiler #B3	114137	0.05	0.01	0.16	0.03	0.02	0.02	0.02	256.23	0.21	0.05	0.65	0.12	0.07	0.07	0.07	1024.92
Bldg. 571	Boiler #B4	114138	0.05	0.01	0.16	0.03	0.02	0.02	0.02	256.23	0.21	0.05	0.65	0.12	0.07	0.07	0.07	1024.92
Bldg. 588	Boiler #B1	114127	0.23	0.01	0.19	0.03	0.02	0.02	0.02	276.73	0.93	0.05	0.78	0.13	0.07	0.07	0.07	1106.91
Bldg. 588	Boiler #B2	393200	0.08	0.01	0.65	0.03	0.02	0.02	0.02	256.23	0.32	0.05	2.60	0.12	0.07	0.07	0.07	1024.92
Bldg. 615	Boiler #B1	393446	0.10	0.01	0.81	0.04	0.02	0.02	0.02	320.29	0.39	0.06	3.25	0.15	0.08	0.08	0.08	1281.15
Bldg. 657	Boiler B-2	398589	0.03	0.01	0.16	0.03	0.02	0.02	0.02	256.10	0.13	0.05	0.65	0.12	0.07	0.07	0.07	1024.41
Bldg. 657	Boiler B-3	398590	0.03	0.01	0.16	0.03	0.02	0.02	0.02	256.10	0.13	0.05	0.65	0.12	0.07	0.07	0.07	1024.41
Bldg. 657	Boiler B-4	398591	0.03	0.01	0.16	0.03	0.02	0.02	0.02	256.10	0.13	0.05	0.65	0.12	0.07	0.07	0.07	1024.41
Bldg. 657	Boiler B-5	398592	0.03	0.01	0.16	0.03	0.02	0.02	0.02	256.10	0.13	0.05	0.65	0.12	0.07	0.07	0.07	1024.41
Bldg. 860	Boiler B-1	393008	0.02	0.01	0.12	0.02	0.01	0.01	0.01	192.17	0.09	0.04	0.49	0.09	0.05	0.05	0.05	768.69
Bldg. 860	Boiler B-2	393011	0.02	0.01	0.12	0.02	0.01	0.01	0.01	192.17	0.09	0.04	0.49	0.09	0.05	0.05	0.05	768.69

Bldg	Operator ID	Device ID	NOx (ton/ qtr)	ROC (ton/ qtr)	CO (ton/ qtr)	SOx (ton/ qtr)	PM (ton/ qtr)	PM10 (ton/ qtr)	PM2.5 (ton/ qtr)	GHG (ton/ qtr)	NOx (ton/ yr)	ROC (ton/ yr)	CO (ton/ yr)	SOx (ton/ yr)	PM (ton/ yr)	PM10 (ton/ yr)	PM2.5 (ton/ yr)	GHG (ton/ yr)
Bldg. 860	Boiler B-3	393012	0.02	0.01	0.12	0.02	0.01	0.01	0.01	192.17	0.09	0.04	0.49	0.09	0.05	0.05	0.05	768.69
Total			8.30	1.06	39.40	2.68	1.47	1.47	1.47	22879.03	32.71	4.20	157.20	10.65	5.83	5.83	5.83	90960.97

Table 5.5: Operating Equipment Description - Reciprocating Internal Combustion

Building	Operator ID	Device ID	Fuel Type	Make	Model	Rating (bhp)	Engine Use	Hrs/Day	Hrs/Yr
Bldg. 205	Emer. Generator	114058	Diesel	Caterpillar	3208	299	Emer. Gen.	2	20
Bldg. 221	Emer. Generator	114030	Diesel	Cummins	QSM11-G2	470	Emer. Gen.	2	50
Bldg. 225	Emer. Generator	114057	Diesel	Cummins	06T30-G5-NR1	1490	Emer. Gen.	2	20
Bldg. 226	Emer. Generator	393553	Diesel	Caterpillar	C7.1	281	Emer. Gen.	2	50
Bldg. 235	Emer. Generator	114056	Diesel	Volvo	TAD1631GE	768	Emer. Gen.	2	20
Bldg. 250	Emer. Generator	114055	Diesel	John Deere	6059TF002	152	Emer. Gen.	2	20
Bldg. 266	Emer. Generator	114054	Diesel	Caterpillar	3512	2172	Emer. Gen.	2	20
Bldg. 276	Emer. Generator	114071	Diesel	Caterpillar	C9	398	Emer. Gen.	2	50
Bldg. 503	Emer. Generator	114134	Diesel	Caterpillar	c15	798	Emer. Gen.	2	50
Bldg. 506	Emer. Generator	395544	Diesel	Caterpillar	C4.4	161	Emer. Gen.	2	40
Bldg. 511	Emer. Generator	114052	Diesel	Cummins	6BTA5.9-G4	170	Emer. Gen.	2	20
Bldg. 512	Emer. Generator	388947	Diesel	Mitsubishi	S12R-Y2PTAW-1	1881	Emer. Gen.	2	50
Bldg. 515	Emer. Generator	114051	Diesel	Det. Diesel	12V71TA	750	Emer. Gen.	2	20
Bldg. 516	Emer. Generator	114050	Diesel	Cummins	4B3.9-G	68	Emer. Gen.	2	20
Bldg. 520	Emer. Generator	114049	Diesel	Cummins	QSX15-G9	755	Emer. Gen.	2	20
Bldg. 521	Emer. Generator	114048	Diesel	Cummins	NTA-855-G3	535	Emer. Gen.	2	20
Bldg. 525	Emer. Generator	386852	Diesel	Caterpillar	C15	762	Emer. Gen.	2	50
Bldg. 526	Emer. Generator	393041	Diesel	Caterpillar	C4.4	96	Emer. Gen.	2	50
Bldg. 529	Emer. Generator	393551	Diesel	Cummins	QSB7	324	Emer. Gen.	2	50
Bldg. 529	Emer. Generator	393552	Diesel	Cummins	QSB7	324	Emer. Gen.	2	50
Bldg. 531	Emer. Generator	394710	Diesel	Cummins	4BT3.3-G5	69	Emer. Gen.	2	50
Bldg. 535	Emer. Generator	114139	Diesel	Cummins	QSX15-G9 NR2	755	Emer. Gen.	2	50
Bldg. 544	Emer. Generator	114047	Diesel	Caterpillar	3306	382	Emer. Gen.	2	20
Bldg. 549	Emer. Generator	114046	Diesel	Mitsubishi	OD5703	292	Emer. Gen.	2	20
Bldg. 551	Emer. Generator	114045	Diesel	Caterpillar	3208	263	Emer. Gen.	2	20
Bldg. 553	Emer. Generator	114064	Diesel	John Deere	5030TF270	64	Emer. Gen.	2	50
Bldg. 554	Emer. Generator	394712	Diesel	Cummins	4BT3.3-G5	69	Emer. Gen.	2	50
Bldg. 555	Emer. Generator	114033	Diesel	Cummins	NT-855-G2	355	Emer. Gen.	2	20
Bldg. 556	Emer. Generator	114044	Diesel	Cummins	6CTA-8.3-G	277	Emer. Gen.	2	20
Bldg. 557	Emer. Generator	114043	Diesel	Caterpillar	3406	519	Emer. Gen.	2	20
Bldg. 558	Emer. Generator	114130	Diesel	Perkins	C4.4 ACERT 3362/1800	157	Emer. Gen.	2	50
Bldg. 561	Emer. Generator	114070	Diesel	John Deere	5030TF270 / SD040	64	Emer. Gen.	2	50
Bldg. 562	Emer. Generator	114038	Diesel	Caterpillar	92461	207	Emer. Gen.	2	20
Bldg. 565	Emer. Generator	114042	Diesel	Cummins	NT-855-G4	375	Emer. Gen.	2	20

Building	Operator ID	Device ID	Fuel Type	Make	Model	Rating (bhp)	Engine Use	Hrs/Day	Hrs/Yr
Bldg. 568	Emer. Generator	114041	Diesel	Caterpillar	3056	166	Emer. Gen.	2	20
Bldg. 571	Emer. Generator	114040	Diesel	Caterpillar	3412	749	Emer. Gen.	2	20
Bldg. 572	Emer. Generator	114039	Diesel	Cummins	Q5X15-G9	755	Emer. Gen.	2	20
Bldg. 574	Emer. Generator	394714	Diesel	Cummins	4BT3.3-G5	69	Emer. Gen.	2	50
Bldg. 574	Emer. Generator	114037	Diesel	Caterpillar	3208	299	Emer. Gen.	2	20
Bldg. 585	Emer. Generator	114036	Diesel	Caterpillar	3412	742	Emer. Gen.	2	20
Bldg. 588	Emer. Generator	388960	Diesel	Caterpillar	D200-2	315	Emer. Gen.	2	50
Bldg. 615	Emer. Generator	114035	Diesel	Cummins	LTA10G1	380	Emer. Gen.	2	20
Bldg. 657	Emer. Generator	114034	Diesel	Caterpillar	3412DI	890	Emer. Gen.	2	20
Bldg. 860	Emer. F/W Pump	114029	Diesel	Cummins	6BTA5.9-F2	130	F/W Pump	NA	NA
Bldg. 860	Emer. Generator	114060	Diesel	Mitsubishi	W31066D240PT-GN01(000)	367	Emer. Gen.	2	20
Bldg. 1861	Emer. Generator	388928	Diesel	John Deere	6068HFG82	284	Emer. Gen.	2	50
Portable	Emer. Water Pump	388929	Diesel	John Deere	4045TF275	113	Emer. Pump	2	30
Portable	Emer. Generator	398878	Diesel	Caterpillar	3456	546	Emer. Gen.	2	20

Table 5.6: Emission Factors – Reciprocating Internal Combustion

Building	Operator ID	Device ID	NOx (g/hp-hr)	ROC (g/hp-hr)	CO (g/hp-hr)	SOx (g/hp-hr)	PM (g/hp-hr)	PM10 (g/hp-hr)	PM2.5 (g/hp-hr)	GHG (g/hp-hr)
Bldg. 205	Emer. Generator	114058	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 221	Emer. Generator	114030	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 225	Emer. Generator	114057	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 226	Emer. Generator	393553	2.8	0.2	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 235	Emer. Generator	114056	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 250	Emer. Generator	114055	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 266	Emer. Generator	114054	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 276	Emer. Generator	114071	2.8	0.2	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 503	Emer. Generator	114134	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 506	Emer. Generator	395544	2.8	0.2	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 511	Emer. Generator	114052	4.5	0.4	3.7	0.006	0.22	0.22	0.22	556.58
Bldg. 512	Emer. Generator	388947	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 515	Emer. Generator	114051	14.1	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 516	Emer. Generator	114050	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 520	Emer. Generator	114049	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 521	Emer. Generator	114048	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 525	Emer. Generator	386852	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 526	Emer. Generator	393041	3.3	0.2	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 529	Emer. Generator	393551	2.8	0.2	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 529	Emer. Generator	393552	2.8	0.2	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 531	Emer. Generator	394710	3.3	0.2	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 535	Emer. Generator	114139	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 544	Emer. Generator	114047	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 549	Emer. Generator	114046	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 551	Emer. Generator	114045	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 553	Emer. Generator	114064	5.2	0.4	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 554	Emer. Generator	394712	3.3	0.2	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 555	Emer. Generator	114033	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 556	Emer. Generator	114044	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 557	Emer. Generator	114043	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 558	Emer. Generator	114130	2.8	0.2	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 561	Emer. Generator	114070	5.2	0.4	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 562	Emer. Generator	114038	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58

Building	Operator ID	Device ID	NOx (g/hp-hr)	ROC (g/hp-hr)	CO (g/hp-hr)	SOx (g/hp-hr)	PM (g/hp-hr)	PM10 (g/hp-hr)	PM2.5 (g/hp-hr)	GHG (g/hp-hr)
Bldg. 565	Emer. Generator	114042	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 568	Emer. Generator	114041	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 571	Emer. Generator	114040	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 572	Emer. Generator	114039	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 574	Emer. Generator	394714	3.3	0.2	3.7	0.006	0.15	0.15	0.15	556.58
Bldg. 574	Emer. Generator	114037	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 585	Emer. Generator	114036	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 588	Emer. Generator	388960	2.8	0.2	2.6	0.006	0.15	0.15	0.15	556.58
Bldg. 615	Emer. Generator	114035	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 657	Emer. Generator	114034	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 860	Emer. F/W Pump	114029	14.06	1.12	3.03	0.006	0.98	0.98	0.98	556.58
Bldg. 860	Emer. Generator	114060	6.9	1	8.5	0.006	0.4	0.4	0.4	556.58
Bldg. 1861	Emer. Generator	388928	2.8	0.2	2.6	0.006	0.15	0.15	0.15	556.58
Portable	Emer. Water Pump	388929	4.5	0.4	3.7	0.006	0.22	0.22	0.22	556.58
Portable	Emer. Generator	398878	4.5	0.3	2.6	0.006	0.15	0.15	0.15	556.58

USEPA Emission Standards for Tier 1 - 3 engines

Table 5.7: Short Term Potential to Emit – Reciprocating Internal Combustion

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 205	Emer. Generator	114058	4.55	0.66	5.60	0.00	0.26	0.26	0.26	366.88	9.10	1.32	11.21	0.01	0.53	0.53	0.53	733.76
Bldg. 221	Emer. Generator	114030	4.66	0.31	2.69	0.01	0.16	0.16	0.16	576.70	9.33	0.62	5.39	0.01	0.31	0.31	0.31	1153.41
Bldg. 225	Emer. Generator	114057	22.67	3.28	27.92	0.02	1.31	1.31	1.31	1828.27	45.33	6.57	55.84	0.04	2.63	2.63	2.63	3656.54
Bldg. 226	Emer. Generator	393553	1.73	0.12	1.61	0.00	0.09	0.09	0.09	344.79	3.47	0.25	3.22	0.01	0.19	0.19	0.19	689.59
Bldg. 235	Emer. Generator	114056	11.68	1.69	14.39	0.01	0.68	0.68	0.68	942.36	23.37	3.39	28.78	0.02	1.35	1.35	1.35	1884.72
Bldg. 250	Emer. Generator	114055	2.31	0.34	2.85	0.00	0.13	0.13	0.13	186.51	4.62	0.67	5.70	0.00	0.27	0.27	0.27	373.02
Bldg. 266	Emer. Generator	114054	33.04	4.79	40.70	0.03	1.92	1.92	1.92	2665.11	66.08	9.58	81.40	0.06	3.83	3.83	3.83	5330.21
Bldg. 276	Emer. Generator	114071	2.46	0.18	2.28	0.01	0.13	0.13	0.13	488.36	4.91	0.35	4.56	0.01	0.26	0.26	0.26	976.71
Bldg. 503	Emer. Generator	114134	7.92	0.53	4.57	0.01	0.26	0.26	0.26	979.17	15.83	1.06	9.15	0.02	0.53	0.53	0.53	1958.34
Bldg. 506	Emer. Generator	395544	0.99	0.07	1.31	0.00	0.05	0.05	0.05	197.55	1.99	0.14	2.63	0.00	0.11	0.11	0.11	395.10
Bldg. 511	Emer. Generator	114052	1.69	0.15	1.39	0.00	0.08	0.08	0.08	208.59	3.37	0.30	2.77	0.00	0.16	0.16	0.16	417.19
Bldg. 512	Emer. Generator	388947	18.66	1.24	10.78	0.02	0.62	0.62	0.62	2308.04	37.32	2.49	21.56	0.05	1.24	1.24	1.24	4616.08
Bldg. 515	Emer. Generator	114051	23.31	1.85	5.01	0.01	1.62	1.62	1.62	920.27	46.63	3.70	10.02	0.02	3.24	3.24	3.24	1840.54
Bldg. 516	Emer. Generator	114050	2.11	0.17	0.45	0.00	0.15	0.15	0.15	83.44	4.22	0.34	0.91	0.00	0.29	0.29	0.29	166.88
Bldg. 520	Emer. Generator	114049	11.48	1.66	14.15	0.01	0.67	0.67	0.67	926.41	22.97	3.33	28.30	0.02	1.33	1.33	1.33	1852.81
Bldg. 521	Emer. Generator	114048	5.31	0.35	3.07	0.01	0.18	0.18	0.18	656.46	10.62	0.71	6.13	0.01	0.35	0.35	0.35	1312.92
Bldg. 525	Emer. Generator	386852	7.56	0.50	4.37	0.01	0.25	0.25	0.25	935.00	15.12	1.01	8.74	0.02	0.50	0.50	0.50	1869.99

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 526	Emer. Generator	393041	0.70	0.04	0.78	0.00	0.03	0.03	0.03	117.79	1.40	0.08	1.57	0.00	0.06	0.06	0.06	235.59
Bldg. 529	Emer. Generator	393551	2.00	0.14	1.86	0.00	0.11	0.11	0.11	397.56	4.00	0.29	3.71	0.01	0.21	0.21	0.21	795.11
Bldg. 529	Emer. Generator	393552	2.00	0.14	1.86	0.00	0.11	0.11	0.11	397.56	4.00	0.29	3.71	0.01	0.21	0.21	0.21	795.11
Bldg. 531	Emer. Generator	394710	0.50	0.03	0.56	0.00	0.02	0.02	0.02	84.66	1.00	0.06	1.13	0.00	0.05	0.05	0.05	169.33
Bldg. 535	Emer. Generator	114139	7.49	0.50	4.33	0.01	0.25	0.25	0.25	926.41	14.98	1.00	8.66	0.02	0.50	0.50	0.50	1852.81
Bldg. 544	Emer. Generator	114047	3.79	0.25	2.19	0.01	0.13	0.13	0.13	468.72	7.58	0.51	4.38	0.01	0.25	0.25	0.25	937.45
Bldg. 549	Emer. Generator	114046	2.90	0.19	1.67	0.00	0.10	0.10	0.10	358.29	5.79	0.39	3.35	0.01	0.19	0.19	0.19	716.58
Bldg. 551	Emer. Generator	114045	8.15	0.65	1.76	0.00	0.57	0.57	0.57	322.71	16.30	1.30	3.51	0.01	1.14	1.14	1.14	645.42
Bldg. 553	Emer. Generator	114064	0.73	0.06	0.52	0.00	0.02	0.02	0.02	78.53	1.47	0.11	1.04	0.00	0.04	0.04	0.04	157.06
Bldg. 554	Emer. Generator	394712	0.50	0.03	0.56	0.00	0.02	0.02	0.02	84.66	1.00	0.06	1.13	0.00	0.05	0.05	0.05	169.33
Bldg. 555	Emer. Generator	114033	11.00	0.88	2.37	0.00	0.77	0.77	0.77	435.60	22.01	1.75	4.74	0.01	1.53	1.53	1.53	871.19
Bldg. 556	Emer. Generator	114044	8.59	0.68	1.85	0.00	0.60	0.60	0.60	339.89	17.17	1.37	3.70	0.01	1.20	1.20	1.20	679.77
Bldg. 557	Emer. Generator	114043	7.89	1.14	9.73	0.01	0.46	0.46	0.46	636.83	15.79	2.29	19.45	0.01	0.92	0.92	0.92	1273.66
Bldg. 558	Emer. Generator	114130	0.97	0.07	1.28	0.00	0.05	0.05	0.05	192.64	1.94	0.14	2.56	0.00	0.10	0.10	0.10	385.29
Bldg. 561	Emer. Generator	114070	0.73	0.06	0.52	0.00	0.02	0.02	0.02	78.53	1.47	0.11	1.04	0.00	0.04	0.04	0.04	157.06
Bldg. 562	Emer. Generator	114038	3.15	0.46	3.88	0.00	0.18	0.18	0.18	253.99	6.30	0.91	7.76	0.01	0.37	0.37	0.37	507.99
Bldg. 565	Emer. Generator	114042	11.62	0.93	2.50	0.00	0.81	0.81	0.81	460.14	23.25	1.85	5.01	0.01	1.62	1.62	1.62	920.27
Bldg. 568	Emer. Generator	114041	5.15	0.41	1.11	0.00	0.36	0.36	0.36	203.69	10.29	0.82	2.22	0.00	0.72	0.72	0.72	407.37

Building	Operator ID	Device ID	NOx (lb/hr)	ROC (lb/hr)	CO (lb/hr)	SOx (lb/hr)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	GHG (lb/hr)	NOx (lb/day)	ROC (lb/day)	CO (lb/day)	SOx (lb/day)	PM (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	GHG (lb/day)
Bldg. 571	Emer. Generator	114040	11.39	1.65	14.04	0.01	0.66	0.66	0.66	919.04	22.79	3.30	28.07	0.02	1.32	1.32	1.32	1838.09
Bldg. 572	Emer. Generator	114039	11.48	1.66	14.15	0.01	0.67	0.67	0.67	926.41	22.97	3.33	28.30	0.02	1.33	1.33	1.33	1852.81
Bldg. 574	Emer. Generator	394714	0.50	0.03	0.56	0.00	0.02	0.02	0.02	84.66	1.00	0.06	1.13	0.00	0.05	0.05	0.05	169.33
Bldg. 574	Emer. Generator	114037	9.27	0.74	2.00	0.00	0.65	0.65	0.65	366.88	18.54	1.48	3.99	0.01	1.29	1.29	1.29	733.76
Bldg. 585	Emer. Generator	114036	23.00	1.83	4.96	0.01	1.60	1.60	1.60	910.45	46.00	3.66	9.91	0.02	3.21	3.21	3.21	1820.91
Bldg. 588	Emer. Generator	388960	1.94	0.14	1.81	0.00	0.10	0.10	0.10	386.51	3.89	0.28	3.61	0.01	0.21	0.21	0.21	773.03
Bldg. 615	Emer. Generator	114035	5.78	0.84	7.12	0.01	0.34	0.34	0.34	466.27	11.56	1.68	14.24	0.01	0.67	0.67	0.67	932.54
Bldg. 657	Emer. Generator	114034	27.59	2.20	5.95	0.01	1.92	1.92	1.92	1092.06	55.17	4.40	11.89	0.02	3.85	3.85	3.85	2184.11
Bldg. 860	Emer. F/W Pump	114029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 860	Emer. Generator	114060	5.58	0.81	6.88	0.00	0.32	0.32	0.32	450.32	11.17	1.62	13.75	0.01	0.65	0.65	0.65	900.64
Bldg. 1861	Emer. Generator	388928	1.75	0.13	1.63	0.00	0.09	0.09	0.09	348.48	3.51	0.25	3.26	0.01	0.19	0.19	0.19	696.95
Portable	Emer. Water Pump	388929	1.12	0.10	0.92	0.00	0.05	0.05	0.05	138.65	2.24	0.20	1.84	0.00	0.11	0.11	0.11	277.31
Portable	Emer. Generator	398878	5.42	0.36	3.13	0.01	0.18	0.18	0.18	669.96	10.83	0.72	6.26	0.01	0.36	0.36	0.36	1339.91
Total			344.84	35.05	245.62	0.29	19.78	19.78	19.78	27211.80	689.67	70.11	491.23	0.59	39.56	39.56	39.56	54423.61

Note – Device 114029 is an emergency fire/water pump diesel engine and does not have hourly or annual emission limits.

Table 5.8: Long Term Potential to Emit – Reciprocating Internal Combustion

Bldg	Operator ID	Device ID	NOx (ton/ qtr)	ROC (ton/ qtr)	CO (ton/ qtr)	SOx (ton/ qtr)	PM (ton/ qtr)	PM10 (ton/ qtr)	PM2.5 (ton/ qtr)	GHG (ton/ qtr)	NOx (ton/ yr)	ROC (ton/ yr)	CO (ton/ yr)	SOx (ton/ yr)	PM (ton/ yr)	PM10 (ton/ yr)	PM2.5 (ton/ yr)	GHG (ton/ year)
Bldg. 205	Emer. Generator	114058	0.05	0.01	0.06	0.00	0.00	0.00	0.00	3.67	0.05	0.01	0.06	0.00	0.00	0.00	0.00	3.67
Bldg. 221	Emer. Generator	114030	0.12	0.01	0.07	0.00	0.00	0.00	0.00	14.42	0.12	0.01	0.07	0.00	0.00	0.00	0.00	14.42
Bldg. 225	Emer. Generator	114057	0.23	0.03	0.28	0.00	0.01	0.01	0.01	18.28	0.23	0.03	0.28	0.00	0.01	0.01	0.01	18.28
Bldg. 226	Emer. Generator	393553	0.04	0.00	0.04	0.00	0.00	0.00	0.00	8.62	0.04	0.00	0.04	0.00	0.00	0.00	0.00	8.62
Bldg. 235	Emer. Generator	114056	0.12	0.02	0.14	0.00	0.01	0.01	0.01	9.42	0.12	0.02	0.14	0.00	0.01	0.01	0.01	9.42
Bldg. 250	Emer. Generator	114055	0.02	0.00	0.03	0.00	0.00	0.00	0.00	1.87	0.02	0.00	0.03	0.00	0.00	0.00	0.00	1.87
Bldg. 266	Emer. Generator	114054	0.33	0.05	0.41	0.00	0.02	0.02	0.02	26.65	0.33	0.05	0.41	0.00	0.02	0.02	0.02	26.65
Bldg. 276	Emer. Generator	114071	0.06	0.00	0.06	0.00	0.00	0.00	0.00	12.21	0.06	0.00	0.06	0.00	0.00	0.00	0.00	12.21
Bldg. 503	Emer. Generator	114134	0.20	0.01	0.11	0.00	0.01	0.01	0.01	24.48	0.20	0.01	0.11	0.00	0.01	0.01	0.01	24.48
Bldg. 506	Emer. Generator	395544	0.02	0.00	0.03	0.00	0.00	0.00	0.00	3.95	0.02	0.00	0.03	0.00	0.00	0.00	0.00	3.95
Bldg. 511	Emer. Generator	114052	0.02	0.00	0.01	0.00	0.00	0.00	0.00	2.09	0.02	0.00	0.01	0.00	0.00	0.00	0.00	2.09
Bldg. 512	Emer. Generator	388947	0.47	0.03	0.27	0.00	0.02	0.02	0.02	57.70	0.47	0.03	0.27	0.00	0.02	0.02	0.02	57.70
Bldg. 515	Emer. Generator	114051	0.23	0.02	0.05	0.00	0.02	0.02	0.02	9.20	0.23	0.02	0.05	0.00	0.02	0.02	0.02	9.20
Bldg. 516	Emer. Generator	114050	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Bldg. 520	Emer. Generator	114049	0.11	0.02	0.14	0.00	0.01	0.01	0.01	9.26	0.11	0.02	0.14	0.00	0.01	0.01	0.01	9.26

Bldg	Operator ID	Device ID	NOx (ton/qtr)	ROC (ton/qtr)	CO (ton/qtr)	SOx (ton/qtr)	PM (ton/qtr)	PM10 (ton/qtr)	PM2.5 (ton/qtr)	GHG (ton/qtr)	NOx (ton/yr)	ROC (ton/yr)	CO (ton/yr)	SOx (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	GHG (ton/year)
Bldg. 521	Emer. Generator	114048	0.05	0.00	0.03	0.00	0.00	0.00	0.00	6.56	0.05	0.00	0.03	0.00	0.00	0.00	0.00	6.56
Bldg. 525	Emer. Generator	386852	0.19	0.01	0.11	0.00	0.01	0.01	0.01	23.37	0.19	0.01	0.11	0.00	0.01	0.01	0.01	23.37
Bldg. 526	Emer. Generator	393041	0.02	0.00	0.02	0.00	0.00	0.00	0.00	2.94	0.02	0.00	0.02	0.00	0.00	0.00	0.00	2.94
Bldg. 529	Emer. Generator	393551	0.05	0.00	0.05	0.00	0.00	0.00	0.00	9.94	0.05	0.00	0.05	0.00	0.00	0.00	0.00	9.94
Bldg. 529	Emer. Generator	393552	0.05	0.00	0.05	0.00	0.00	0.00	0.00	9.94	0.05	0.00	0.05	0.00	0.00	0.00	0.00	9.94
Bldg. 531	Emer. Generator	394710	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.12	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.12
Bldg. 535	Emer. Generator	114139	0.19	0.01	0.11	0.00	0.01	0.01	0.01	23.16	0.19	0.01	0.11	0.00	0.01	0.01	0.01	23.16
Bldg. 544	Emer. Generator	114047	0.04	0.00	0.02	0.00	0.00	0.00	0.00	4.69	0.04	0.00	0.02	0.00	0.00	0.00	0.00	4.69
Bldg. 549	Emer. Generator	114046	0.03	0.00	0.02	0.00	0.00	0.00	0.00	3.58	0.03	0.00	0.02	0.00	0.00	0.00	0.00	3.58
Bldg. 551	Emer. Generator	114045	0.08	0.01	0.02	0.00	0.01	0.01	0.01	3.23	0.08	0.01	0.02	0.00	0.01	0.01	0.01	3.23
Bldg. 553	Emer. Generator	114064	0.02	0.00	0.01	0.00	0.00	0.00	0.00	1.96	0.02	0.00	0.01	0.00	0.00	0.00	0.00	1.96
Bldg. 554	Emer. Generator	394712	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.12	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.12
Bldg. 555	Emer. Generator	114033	0.11	0.01	0.02	0.00	0.01	0.01	0.01	4.36	0.11	0.01	0.02	0.00	0.01	0.01	0.01	4.36
Bldg. 556	Emer. Generator	114044	0.09	0.01	0.02	0.00	0.01	0.01	0.01	3.40	0.09	0.01	0.02	0.00	0.01	0.01	0.01	3.40
Bldg. 557	Emer. Generator	114043	0.08	0.01	0.10	0.00	0.00	0.00	0.00	6.37	0.08	0.01	0.10	0.00	0.00	0.00	0.00	6.37
Bldg. 558	Emer. Generator	114130	0.02	0.00	0.03	0.00	0.00	0.00	0.00	4.82	0.02	0.00	0.03	0.00	0.00	0.00	0.00	4.82
Bldg. 561	Emer. Generator	114070	0.02	0.00	0.01	0.00	0.00	0.00	0.00	1.96	0.02	0.00	0.01	0.00	0.00	0.00	0.00	1.96
Bldg. 562	Emer. Generator	114038	0.03	0.00	0.04	0.00	0.00	0.00	0.00	2.54	0.03	0.00	0.04	0.00	0.00	0.00	0.00	2.54

Bldg	Operator ID	Device ID	NOx (ton/qtr)	ROC (ton/qtr)	CO (ton/qtr)	SOx (ton/qtr)	PM (ton/qtr)	PM10 (ton/qtr)	PM2.5 (ton/qtr)	GHG (ton/qtr)	NOx (ton/yr)	ROC (ton/yr)	CO (ton/yr)	SOx (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	GHG (ton/year)
Bldg. 565	Emer. Generator	114042	0.12	0.01	0.03	0.00	0.01	0.01	0.01	4.60	0.12	0.01	0.03	0.00	0.01	0.01	0.01	4.60
Bldg. 568	Emer. Generator	114041	0.05	0.00	0.01	0.00	0.00	0.00	0.00	2.04	0.05	0.00	0.01	0.00	0.00	0.00	0.00	2.04
Bldg. 571	Emer. Generator	114040	0.11	0.02	0.14	0.00	0.01	0.01	0.01	9.19	0.11	0.02	0.14	0.00	0.01	0.01	0.01	9.19
Bldg. 572	Emer. Generator	114039	0.11	0.02	0.14	0.00	0.01	0.01	0.01	9.26	0.11	0.02	0.14	0.00	0.01	0.01	0.01	9.26
Bldg. 574	Emer. Generator	394714	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.12	0.01	0.00	0.01	0.00	0.00	0.00	0.00	2.12
Bldg. 574	Emer. Generator	114037	0.09	0.01	0.02	0.00	0.01	0.01	0.01	3.67	0.09	0.01	0.02	0.00	0.01	0.01	0.01	3.67
Bldg. 585	Emer. Generator	114036	0.23	0.02	0.05	0.00	0.02	0.02	0.02	9.10	0.23	0.02	0.05	0.00	0.02	0.02	0.02	9.10
Bldg. 588	Emer. Generator	388960	0.05	0.00	0.05	0.00	0.00	0.00	0.00	9.66	0.05	0.00	0.05	0.00	0.00	0.00	0.00	9.66
Bldg. 615	Emer. Generator	114035	0.06	0.01	0.07	0.00	0.00	0.00	0.00	4.66	0.06	0.01	0.07	0.00	0.00	0.00	0.00	4.66
Bldg. 657	Emer. Generator	114034	0.28	0.02	0.06	0.00	0.02	0.02	0.02	10.92	0.28	0.02	0.06	0.00	0.02	0.02	0.02	10.92
Bldg. 860	Emer. F/W Pump	114029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 860	Emer. Generator	114060	0.06	0.01	0.07	0.00	0.00	0.00	0.00	4.50	0.06	0.01	0.07	0.00	0.00	0.00	0.00	4.50
Bldg. 1861	Emer. Generator	388928	0.04	0.00	0.04	0.00	0.00	0.00	0.00	8.71	0.04	0.00	0.04	0.00	0.00	0.00	0.00	8.71
Portable	Emer. Water Pump	388929	0.02	0.00	0.01	0.00	0.00	0.00	0.00	2.08	0.02	0.00	0.01	0.00	0.00	0.00	0.00	2.08
Portable	Emer. Generator	398878	0.05	0.00	0.03	0.00	0.00	0.00	0.00	6.70	0.05	0.00	0.03	0.00	0.00	0.00	0.00	6.70
Total			4.41	0.42	3.11	0.00	0.23	0.23	0.23	406.94	4.41	0.42	3.11	0.00	0.23	0.23	0.23	406.94

Note – Device 114029 is an emergency fire/water pump diesel engine and does not have hourly or annual emission limits

Table 5.9: Facility Permitted Emissions

A. Daily - lbs

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM10	PM2.5	GHG
External Combustion	181.92	23.14	863.54	58.69	32.14	32.14	32.14	501,458.26
Internal Combustion	689.67	70.11	491.23	0.59	39.56	39.56	39.56	54,423.61
Coatings	--	2.91	--	--	--	--	--	--
Storage Tanks	--	0.58	--	--	--	--	--	--
Dispensing Facilities	--	1.05	--	--	--	--	--	--
Totals (lb/day)	871.59	97.79	1,354.77	59.28	71.71	71.71	71.71	555,881.87

B. Annual - tons

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM10	PM2.5	GHG
External Combustion	32.71	4.20	157.20	10.65	5.83	5.83	5.83	90,960.97
Internal Combustion	4.41	0.42	3.11	0.00	0.23	0.23	0.23	406.94
Coatings	--	0.38	--	--	--	--	--	--
Storage Tank	--	0.11	--	--	--	--	--	--
Dispensing Facilities	--	0.19	--	--	--	--	--	--
Totals (TPY)¹	37.11	5.29	160.32	10.65	6.07	6.07	6.07	91,367.90

¹ Tons are reported as short tons.

Table 5.10: Federal Potential To Emit**A. Daily - lbs**

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
External Combustion	181.92	23.14	863.54	58.69	32.14	32.14	32.14	501,458.26
Internal Combustion	689.67	70.11	491.23	0.59	39.56	39.56	39.56	54,423.61
Coatings	--	2.91	--	--	--	--	--	--
Storage Tanks	--	0.58	--	--	--	--	--	--
Dispensing Facilities	--	1.05	--	--	--	--	--	--
Totals (lb/day)	871.59	97.79	1,354.77	59.28	71.71	71.71	71.71	555,881.87

B. Annual - tons

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
External Combustion	32.71	4.20	157.20	10.65	5.83	5.83	5.83	90,192.28
Internal Combustion	4.41	0.42	3.11	0.00	0.23	0.23	0.23	406.94
Coatings	--	0.38	--	--	--	--	--	--
Storage Tank	--	0.11	--	--	--	--	--	--
Dispensing Facilities	--	0.19	--	--	--	--	--	--
Exempt Emissions	70.07	6.81	71.84	10.55	5.95	5.95	5.95	90,087.79
Totals (TPY)¹	107.18	12.10	232.15	21.20	12.01	12.01	12.01	180,687.01

¹ Tons are reported as short tons.

Table 5.11: HAP Emission Factors

Equipment Category	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	Chlorobenzene	Ethyl Benzene	Formaldehyde	Hexane	Hydrochloric Acid	PAHs	Toluene	Xylenes	Units	References
NG Boilers/Heaters <10 MMBtu	0.0002	0.0000	0.0011	0.0014	0.0001	0.0005	0.0004	0.0003	0.0021	0.0000	0.0043	0.0027	0.0080	--	--	0.0095	0.0170	0.0063	--	0.0004	0.0366	0.0272	lb/MMcf	A
Stationary Diesel IC Engines	0.0016	--	0.0015	0.0006	--	0.0083	0.0031	0.0020	0.0039	0.0022	0.7833	0.0339	0.1863	0.2174	0.0002	0.0109	1.7261	0.0269	0.1863	0.0559	0.1054	0.0424	lb/kgal	B
Gasoline Dispensing/Storage																								
Liquid	--	--	--	--	--	--	--	--	--	--	--	--	0.010	--	--	--	--	--	--	--	--	--	lb/lb-ROC	C
Vapor	--	--	--	--	--	--	--	--	--	--	--	--	0.003	--	--	--	--	--	--	--	--	--	lb/lb-ROC	C
Coating/Solvent Usage	--	--	--	--	--	--	--	--	--	--	--	--	0.05	--	--	--	--	--	--	--	0.05	0.05	lb/lb-ROC	D

References:

A1 - VCAPCD, AB 2588 Combustion Emission Factors (2001) - Natural Gas Fired External Combustion Equipment (<10 MMBTU/h)
A2 - USEPA, AP-42 Chapter 1.4 (1998) - Table 1.4-4. Emission Factors for Metals from Natural Gas Combustion
A3 - USEPA, AP-42 Chapter 1.4 (1998) - Table 1.4-2. Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion
B1 - VCAPCD, AB 2588 Combustion Emission Factors (2001) - Diesel Combustion Factors Table - Internal combustion
B2 - SCAQMD, Reporting Procedures for AB2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory (2016) - Table B-2: Default EF for Diesel/Distillate Oil Fuel Combustion
C - SBCAPCD, Gasoline Station Health Risk Assessment Application Form-25T (2020) - Attachment B: ROC and Benzene Emissions
D - APCD: Solvents assumed to contain 5% benzene, 5% toluene, 5% xylenes

Notes:

1. HAP emissions from coating/solvent usage will be updated in the next PTO reevaluation after the emission calculations for 2018 are finalized under the AB 2588 program.

Table 5.12: Boiler HAP Emissions (TPY)

Building	Operator ID	Device ID	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Acetaldehyde	Acrolein	Benzene	Ethyl Benzene	Formaldehyde	Hexane	PAHs	Toluene	Xylenes	Total
Bldg. 221	Boiler #B1	114076	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 225	Boiler #B1	388327	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 225	Boiler #B2	388328	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 225	Boiler #B3	388329	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 235	Boiler #B1	394764	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 235	Boiler B2	393445	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 266	Boiler B1	393026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 266	Boiler B2	393027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 266	Boiler #B3	114063	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 276	Boiler #B1	114128	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 276	Boiler #B2	114129	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler #B1	388948	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler B2	386140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler B3	386141	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler B4	386142	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler B5	386143	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler B6	386144	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 503	Boiler B7	386145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 505	Boiler #B1	393029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 505	Boiler #B2	393030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B1	394908	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B2	394910	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B6	388933	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B7	388935	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B8	388936	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B9	388937	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B10	388938	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B11	388939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B12	388940	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 512	Boiler #B13	388941	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 515	Boiler #B1	114092	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 515	Boiler #B2	114093	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 515	Boiler #B3	114094	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 516	Boiler #B5	393622	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 516	Boiler #B6	393623	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 516	Boiler #B7	393624	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 520	Boiler #B1	114084	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 521	Boiler #B1	114085	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 525	Boiler #B1	393439	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 5.13: Engine HAP Emissions (TPY)

Bldg. 525	Boiler #B2	393440	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 526	Boiler #B1	387978	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 526	Boiler #B2	387979	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 528	Boiler #B1	393266	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 528	Boiler #B2	387629	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 533	Boiler #B1	387980	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 533	Boiler #B2	387981	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 533	Boiler #B3	387983	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 533	Boiler #B4	387982	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 534	Boiler B-1	114710	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 534	Boiler #B-2	114711	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 534	Boiler B1	393444	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 544	Boiler #B1	114079	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 544	Boiler #B2	114080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 549	Boiler #B1	393267	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 549	Boiler #B2	393268	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 551	Boiler B1	393269	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 551	Boiler B2	393270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 552	Boiler #B1	393593	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 552	Boiler #B2	393594	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 553	Boiler #B1	393625	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 553	Boiler #B2	393626	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 554	Boiler #B1	393442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 554	Boiler #B2	393443	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 558	Boiler #B1	393447	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 558	Boiler #B2	393448	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 560	Boiler #B2	387971	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 560	Boiler #B1	393441	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 561	Boiler #B1	114131	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 561	Boiler #B2	114132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 562	Boiler B3	395683	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 562	Boiler B2	395684	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 562	Boiler B1	114251	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 562	Boiler B2	114252	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 563	Boiler #B1	114124	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 563	Boiler #B2	114125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 564	Boiler #B1	114110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 571	Boiler #B1	114135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 571	Boiler #B2	114136	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 571	Boiler #B3	114137	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 571	Boiler #B4	114138	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 588	Boiler #B1	114127	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 588	Boiler #B2	393200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 615	Boiler #B1	393446	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 657	Boiler B-2	398589	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 657	Boiler B-3	398590	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 657	Boiler B-4	398591	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 657	Boiler B-5	398592	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 860	Boiler B-1	393008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 860	Boiler B-2	393011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bldg. 860	Boiler B-3	393012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals:			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.03	0.02	0.09

Notes:

1. These are estimates only, and are not intended to represent emission limits.
2. Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.
3. Natural gas emission calculations are based on a heating value of 1050 BTU/scf.

Table 5.14: Other HAP Emissions (TPY)

Equipment Category	Benzene	Toluene	Xylenes	Total
Gasoline Dispensing/Storage				
Liquid	0.00	--	--	0.00
Vapor	0.00	--	--	0.00
Gasoline Dispensing/Storage Totals:	0.00	0.00	0.00	0.00
Coating/Solvent Usage Totals:	0.02	0.02	0.02	0.06

Notes:

1. These are estimates only, and are not intended to represent emission limits.
2. Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

Table 5.15: Total HAP Emissions (TPY)

Equipment Category	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	Chlorobenzene	Ethyl Benzene	Formaldehyde	Hexane	Hydrochloric Acid	PAHs	Toluene	Xylenes	Total
Boilers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.03	0.02	0.09
Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.06
Gasoline Dispensing/Refueling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating/Solvent Usage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.06
Total for each HAP:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.03	0.00	0.00	0.01	0.04	0.01	0.00	0.00	0.05	0.04	0.21

Notes:

1. These are estimates only, and are not intended to represent emission limits.
2. Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

Table 5.16: Coatings Operating Limits

Operating Limits								
Coatings	Location	Device ID				hours/day	hours/qrt	hours/year
Benchtop Spray Booth	Bldg. 223	390201		--	--	24	2190	8760
Coating Operations	Various	387790		--	--	24	2190	8760

Table 5.17: Fueling Station Operating Limits

Operating Limits								
Gasoline Tank	Location	Device ID	VRS	CARB Executive Order	gal/hr	gal/day	gal/qrt	gal/year
Gasoline Dispenser	Bldg. 555	399834	Phase II	G-70-102-A	390	--	--	20000
Storage Tank	Bldg. 555	114067	Phase I	None		--	--	20000
Emission Limits								
Coatings	Location	Device #		ROC lb/day		ROC TPY		
Coating Operations ¹	Various	387790		2.91		0.38		
Gasoline Tank				ROC lb/day		ROC TPY		
Gasoline Dispenser	Bldg. 555	399834		0.50	--	0.09	--	
Storage Tank	Bldg. 555	114067		0.14	--	0.03	--	
note								

¹ Emission limits permitted under coating operations include all non-exempt coating operations at the UCSB Stationary Source regardless of the location of coating operation

Table 5.18: Exempt Boiler Emissions

Heat input total (MMBtu/hr) for uncontrolled units (.075-.4 MMBtu/hr)	Emission Factors (lb/MMBtu) ¹						short term emissions					
	NOx	ROC	CO	SOX	PM	GHG	NOx lb/day	ROC lb/day	CO lb/day	Sox lb/day	Pm lb/day	GHG
15.258	0.092	0.0054	0.039	0.0137	0.0075	117	33.69	1.98	14.28	5.02	2.75	42844.46

Heat input total (MMBtu/hr) for Rule 360 units (.075-.4 MMBtu/hr)	Emission Factors (lb/MMBtu) ²						short term emissions					
	NOx	ROC	CO	SOX	PM	GHG	NOx lb/day	ROC lb/day	CO lb/day	Sox lb/day	Pm lb/day	GHG
12.275	0.066	0.0054	0.039	0.0137	0.0075	117	19.44	1.59	11.49	4.04	2.21	34468.20

Heat input total (MMBtu/hr) for uncontrolled units (.4-2 MMBtu/hr)	Emission Factors (lb/MMBtu) ³						short term emissions					
	NOx	ROC	CO	SOX	PM	GHG	NOx lb/day	ROC lb/day	CO lb/day	Sox lb/day	Pm lb/day	GHG
54.229	0.098	0.0054	0.082	0.0137	0.0075	117	127.55	7.03	106.72	17.83	9.76	152275.03

Heat input total (MMBtu/hr) for Rule 360 units (.4-2 MMBtu/hr)	Emission Factors (lb/MMBtu) ⁴						short term emissions					
	NOx	ROC	CO	SOX	PM	GHG	NOx lb/day	ROC lb/day	CO lb/day	Sox lb/day	Pm lb/day	GHG
23.545	0.036	0.0054	0.297	0.0137	0.0075	117	20.34	3.05	167.83	7.74	4.24	66114.36

Equipment split into four groups with specific emission factors from AP42 and Rule 360

Notes
¹ Units rated less than or equal to .4 MMBtu/hr with a manufacture year of 2003 or earlier used AP42 uncontrolled EF's for units rated between 0.075 - 0.40 MMBtu/hr
² Units rated less than or equal to .4 MMBtu/hr with a manufacture year of 2004 or greater used Rule 360 EF's for units rated between 0.075 - 0.40 MMBtu/hr
³ Units rated greater than .4MMBtu/hr with a manufacture year of 2003 or earlier used AP42 uncontrolled EF's for units rated between 0.4 - 2.0 MMBtu/hr
⁴ Units rated greater than .4 MMBtu/hr with a manufacture year of 2004 or greater used Rule 360 EF's for units rated between 0.4 - 2.0 MMBtu/hr

Total Long Term Emissions (TPY)					
NOx	ROC	CO	SOx	PM	GHG
36.69	2.49	54.81	6.32	3.46	53965.63

Table 5.19: Exempt Furnace Emissions

Emission Factors (lb/MMBtu)					
NOx	ROC	CO	SOx	PM	GHG
0.092	0.0054	0.039	0.0137	0.0075	117
EF based on AP42 emission factor estimates for furnaces with heat input < 0.3 MMBtu/hr					
assuming operation 24hrs per day 365 hrs per year					
total heat input (MMBtu/hr):	11.681				

short term emissions (lb/day)					
NOx	ROC	CO	SOx	PM	GHG
25.79	1.51	10.93	3.84	2.10	32800.25

Long Term Emissions (TPY)					
NOx	ROC	CO	Sox	PM	GHG
4.71	0.28	2.00	0.70	0.38	5986.05

Table 5.20: Exempt Residential Water Heater Emissions

Heat input total (mmbtu/hr)	uncontrolled emission factors (lb/MMBtu)					
	NOx	ROC	CO	SOx	PM	GHG
51.071	0.092	0.0054	0.039	0.0137	0.0075	117

Note* Assuming operation 24hr per day, 365 days per year
emission factors are AP42 uncontrolled factors for boilers rated between .075-.4 MMBtu/hr

short term emissions (lb/day)					
Nox	ROC	CO	SOx	PM	GHG
112.76	6.62	47.80	16.79	9.19	143407.37
Long Term Emissions (TPY)					
NOx	ROC	CO	SOx	PM	GHG
20.58	1.21	8.72	3.06	1.68	26171.84

Table 5.21: Exempt Kiln Emissions

Heat input total (mmbtu/hr)	uncontrolled emission factors (lb/MMBtu) ¹					
	NOx	ROC	CO	SOX	PM	GHG
1.420	0.092	0.0054	0.039	0.0137	0.0075	117

short term emissions (lb/day)					
Nox	ROC	CO	Sox	PM	GHG
3.14	0.18	1.33	0.47	0.26	3987.36

Long Term Emissions (TPY)					
Nox	ROC	CO	Sox	PM	GHG
0.57	0.03	0.24	0.09	0.05	727.69

¹ Emissions are based on AP42 uncontrolled EF's for small boiler units rated between 0.075 - 0.40 MMBtu/hr

Table 5.22: Exempt Generator Emissions

HP total for Diesel fired Engines	² Emission Factors (g/bhp-hr)					
	NOx	ROC	CO	SOX	PM	GHG
317.700	14.1	1.12	3	0.183	1	557

HP total for Natural Gas fired Engines	³ Emission Factors (g/bhp-hr)					
	NOx	ROC	CO	SOX	PM	GHG
465.000	10.52	1.71	17.72	0.0028	0.045	557

Long Term Emissions (TPY)					
Nox	ROC	CO	Sox	PM	GHG
2.47	0.20	0.53	0.03	0.18	97.53

Long Term Emissions (TPY)					
Nox	ROC	CO	Sox	PM	GHG
2.70	0.44	4.54	0.00	0.01	142.75

Total Long Term Emissions (TPY)					
Nox	ROC	CO	Sox	PM	GHG
5.16	0.63	5.07	0.03	0.19	240.28

Notes

¹ Engine HP estimated using generator rating and estimated efficiency

² Emission Factors for Diesel Engines are from AP42 Table 3.3-1 and 3.3-2 default factors

³ Estimated natural gas emission factors based on BSFC for naturally aspirating spark ignition engines of 10,500 BTU/bhp-hr and AP42 factors for uncontrolled 4 stroke rich burn natural gas-fired reciprocating engines. (AP 42 - 3.2).

GHG emissions based on mass balance and calculations from section 5.3 in PT70 PTO 13725

Assuming operation of 500 hrs per yr

Table 5.23: Exempt Kitchen Equipment Emissions

Total Heat Input (MMBtu/hr)	5.847				
Emission Factors (lb/MMBtu)					
NOx	ROC	CO	SOX	PM	GHG
0.09	0.01	0.04	0.01	0.01	117.00
short term emissions (lb/day)					
NOx	ROC	CO	SOx	PM	GHG
12.91	0.76	5.47	1.92	1.05	16418.10
Long Term Emissions (TPY)					
NOx	ROC	CO	Sox	PM	GHG
2.36	0.14	1.00	0.35	0.19	2996.30

EF based on AP42 emission factor estimates for furnaces with heat input < 0.3 MMBtu/hr
assuming operation 24hrs per day 365 hrs per year

Table 5.24: Exempt Laboratory Emissions

PolName	Pol	SumOfAnn PTE (Tons/Yr)	SumOfQuart PTE (Tons/Qtr)	SumOfDaily PTE (lbs/day)	SumOfHourly PTE (lbs/Hr)
Reactive Organic Gas	16113	2.027130243	0.506782561	49.08470636	2.045196098

Emissions are based on reported PTE for exempt equipment found in UCSB's title 5 application

6.0 AIR QUALITY IMPACT ANALYSES

6.1 Modeling

An air quality impact analysis has not been required for this stationary source.

6.2 Increments

An air quality increment analysis has not been required for this stationary source.

6.3 Monitoring

Air quality monitoring is not required for this stationary source.

6.4 Health Risk Assessment

The UCSB stationary source is subject to the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588). The facility’s risk was last assessed for the 2018 inventory year. These results are documented in the District’s January 22, 2026 memorandum addendum, *Corrected AB 2588 HRA Results for UCSB Inventory Year 2018*. The District revised the acute non-cancer analysis and documented the revisions in its May 18, 2026 memorandum, *Corrected AB 2588 HRA Results for UCSB Inventory Year 2018 Updated Acute Non-Cancer Risk – Replacement of Devereux Gasoline Engine*; the values below are the corrected results. The calculated risks and the District’s Board-approved significance thresholds are listed below, with significant risks shown in **bold**.

	<u>UCSB Max Risks</u>	<u>Significance Threshold</u>
Cancer risk:	9.8/million	≥10/million
Chronic non-cancer risk:	0.6	>1
8-Hour Chronic non-cancer risk:	0.1	>1
Acute non-cancer risk:	12.9	>1
Acute Non-Cancer Risk*:	1.0	> 1

* After implementation of the approved Risk Reduction Audit and Plan (RRAP).

Based on these results, the operations at UCSB in 2018 did not present a significant cancer or chronic non-cancer risk to the surrounding community. However, there was a significant onsite and offsite acute non-cancer risk.

As required by the AB 2588 regulation, on December 9, 2025, UCSB submitted a risk reduction audit and plan (RRAP) to reduce the acute non-cancer risk. The District conditionally approved the RRAP on February 24, 2026. The risk reduction measures included: 1) installing Phase II emission controls and limiting the hourly dispensing rate of gasoline at the Marine Biotechnology Laboratory gasoline dispensing facility (Source 436), the risk driving device for the acute non-cancer risk, completed on August 18, 2026; and 2) updating the acute non-cancer risk modeling with the Alternative Refined Acute Method (ARAM) described in Appendix H of the District’s [Form-15i](#). The updated modeling also reflects the removal of emitting devices no longer operating at UCSB: Source 387 (80 hp natural gas generator at the Facilities Management Yard), Source 388 (13 hp natural gas generator at the Geology building), Source 395 (74 hp natural gas generator at Cheadle Hall), Source 396 (20 hp natural gas generator at Snidecor Hall), Source 402 (20.8 hp gasoline generator at the Devereux Lift Station), and Source 435 (GDF at the Facilities

Management Yard). Together, these measures reduced the acute non-cancer risk to 1.0, which does not exceed the District's significance threshold; UCSB therefore no longer presents a significant acute non-cancer risk. Furthermore, as required by AB 2588, the District conducted a public notification for UCSB from July 15 through September 15, 2026. Because there were no residences or businesses within the significant risk isopleth, the notification was conducted online in lieu of the traditional mailing. No comments were submitted during this time period.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1 General

Santa Barbara County has not attained the state ozone ambient air quality standards. The County also does not meet the state PM₁₀ ambient air quality standards. Therefore, emissions from all emission units at the stationary source and its constituent facilities must be consistent with the provisions of the USEPA and State approved Clean Air Plans (CAP) and must not interfere with progress toward attainment of state ambient air quality standards. Under District regulations, any modifications at the source that result in an emissions increase of any nonattainment pollutant exceeding 25 lbs/day must apply BACT Non-Attainment Review (NAR). Increases above offset thresholds will trigger offsets at the source or elsewhere so that there is a net air quality benefit for Santa Barbara County. These offset threshold levels are 240 lbs/day for all attainment pollutants and precursors (except carbon monoxide and PM_{2.5}) and 25 tons/year for all nonattainment pollutants and precursors (except carbon monoxide and PM_{2.5}).

7.2 Clean Air Plan

The 2007 Clean Air Plan, adopted by the District Board on August 16, 2007, addressed both federal and state requirements, serving as the maintenance plan for the federal eight-hour ozone standard and as the state triennial update required by the Health and Safety Code to demonstrate how the District will expedite attainment of the state eight-hour ozone standard. The plan was developed for Santa Barbara County as required by both the 1998 California Clean Air Act and the 1990 Federal Clean Air Act Amendments.

In December 2019 the District Board adopted the 2019 Ozone Plan. The 2019 Plan provides a three-year update to the Clean Air Plan. The 2019 Clean Air Plan therefore satisfies all state triennial planning requirements.

7.3 Emission Reduction Credits (ERCs)

UCSB does not generate Emission Reduction Credits. The ERCs surrendered by UCSB to mitigate the NO_x offset liability of ATC 16116 and ATC-Mod 16116-01 (ERC Certificates 570 and 696) are listed in Table 7.2.

7.4 Offset Requirements

Emission offsets are required when a facility is permitting a project with emissions in excess of District offset thresholds, as defined in Regulation VIII. During initial project permitting the provisions of this Regulation did not apply because the source was previously exempt from the District permit provisions, and permits were required specifically due to a loss of a permit exemption and new rules and regulations. Offsets were first required under ATC 16116, which installed four Lochinvar 1.999 MMBtu/hr boilers (DIDs 398589 through 398592) at Building 657. DIDs 398590, 398591 and 398592 were subject to offsets under ATC 16116 (0.384 TPY NO_x). ATC-Mod 16116-01, incorporated into PTO 16116, removed the Rule 802.B.2 offset exemption for DID 398589 (0.128 TPY NO_x). The total NO_x offset liability of 0.512 TPY (Table 7.1) is mitigated by 0.665 TPY of NO_x ERCs from ERC Certificates 570 and 696 at a 1.3:1 ratio (Table 7.2), and Condition 9.C.9 requires these offsets for the life of the project.

Table 7.1 - Offset Liabilities for UCSB Stationary Source
Updated: September 28, 2026

Item	Permit	Facility	Issue Date	ERC Returned?	Project	Offset Liability --- tons/year ---					ERC Source	Notes
						NO _x	ROC	SO _x	PM	PM ₁₀		
1	ATC 16116	UCSB	02/07/24	n/a	Install new R360 boilers at building 657.	0.384	0.000	0.000	0.000	0.000	ERC 570	(d)
2	ATC-Mod 16116-01	UCSB	01/29/25	n/a	Loss of BACT offset exemption under ATC 16116	0.128	0.000	0.000	0.000	0.000	ERC 696	(d)
TOTALS (tpy) =						0.512	0.000	0.000	0.000	0.000		

Notes

- (a) See Table 7.2 for ERCs required to mitigate the offset liability. ERC Source denotes the ERC Certificate # used by the ATC permit.
 (b) Permits with zero emission increases not shown in this table.
 (c) ERCs used after August 26, 2016 may be returned to the Source Register. This line item reflects such a return. It is entered as a negative entry to balance this ledger. Original entry is not revised.
 (d) ATC 16116 was for the installation of 4 new R360 boilers and depermitting an existing R360 boiler. 1 boiler qualified for the Rule 802.B.2 offset exemption, the 3 remaining boilers were subject to offsets. Permit was later modified under ATC-Mod 16116-01 to provide offsets for the offset exempt boiler in order to allow the reinstallation of the boiler previously removed under the BACT offset exemption.

\\FS01\Groups\ENGR\WP\UCSB\Offsets\Post 2016 NSR Rule Change Offset-ERC Table - 1-13-2025.xlsx\REVSIONS

Table 7.2 - Emission Reduction Credits for UCSB Stationary Source
Updated: September 28, 2026

Item	Permit	Facility	Surrender Date	ERC Returned?	Emission Reduction Credits --- tons/year ---					Offset Ratio	ERC Source	NOTES
					NO _x	ROC	SO _x	PM	PM ₁₀			
1	ATC 16116	UCSB	02/07/24	n/a	0.499	0.000	0.000	0.000	0.000	1.3	ERC 570	
2	ATC-Mod 16116-01	UCSB	01/29/25	n/a	0.166	0.000	0.000	0.000	0.000	1.3	ERC 696	
TOTALS (tpy) =					0.666	0.000	0.000	0.000	0.000			

Notes

- (c) **Brown text** cells require data entry. Do not enter data in Black text cells

\\FS01\Groups\ENGR\WP\UCSB\Offsets\Post 2016 NSR Rule Change Offset-ERC Table - 1-13-2025.xlsx\REVSIONS

8.0 LEAD AGENCY PERMIT CONSISTENCY

To the best of the District's knowledge, no other governmental agency's permit requires air quality mitigation.

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9.0 PERMIT CONDITIONS

This section lists the applicable permit conditions for the UCSB facility. Section 9 contains the permit's enforceable requirements.

9.A Standard Administrative Conditions

- A1. **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and the District's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit. [Ref: Rule 206]
- A2. **Compliance.** Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments. [Ref: Rule 1303]
- A3. **Severability.** In the event that any condition herein is determined to be invalid, all other conditions shall remain in force. [Ref: Rule 1303]
- A4. **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein. [Ref: Rule 1303]
- A5. **Reimbursement of Costs.** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for all activities that follow the issuance of this permit, including but not limited to permit condition implementation, annual compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by UCSB as required by Rule 210. This includes any activities related to District review and approval of required plans and reports pursuant to Rule 210.A.4.i (e.g. FUMP plan review and approval). [Ref: Rule 210]
- A6. **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A. [Ref: Rule 1303]
- A7. **Emission Factor Revisions.** The District may update the emission factors for any calculation based on USEPA AP-42 or District emission factors at the next permit modification or permit reevaluation to account for USEPA and/or District revisions to the underlying emission factors. [Ref: Rule 1303]
- A8. **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.* [Ref: Rule 1303]

A9. Compliance with Permit Conditions.

- (a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.
- (b) This permit does not convey property rights or exclusive privilege of any sort.
- (c) Any permit noncompliance with sections 9.A, 9.B, or 9.C constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- (d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.
- (f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
 - (i) compliance with the permit, or
 - (ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.
- (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible.

[Ref: 40 CFR Part 70.6.(a)(6), District Rule 1303]

A10. Emergency Provisions. Revoked.

A11. Compliance Plan.

- (a) The permittee shall comply with all federally-enforceable requirements that become applicable during the permit term in a timely manner.
- (b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards.

[Ref: District Rule 1302]

A12. Right of Entry. The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:

- (a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
- (b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;
- (c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. Monitoring of emissions can include source testing.

[Ref: District Rule 1303]

- A13. Permit Life.** The Part 70 permit shall become invalid by December 1, 2029 unless a timely and complete renewal application is submitted to the District. Any operation of the source to which this Part 70 permit is issued beyond the expiration date of this Part 70 permit and without a valid Part 70 operating permit (or a complete Part 70 permit renewal application) shall be a violation of the CAAA, § 502(a) and 503(d) and of the District rules.

The permittee shall submit an application for renewal of the Part 70 permit not later than 6 months before the date of the permit expiration. Upon submittal of a timely and complete renewal application, the Part 70 permit shall remain in effect until the Control Officer issues or denies the renewal application. [Ref: District Rule 1304]

- A14. Payment of Fees.** The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to section 502(a) of the Clean Air Act. [Ref: District Rules 1303 and 1304, 40 CFR 70.6(a)(7)]
- A15. Deviation from Permit Requirements.** The permittee shall submit a written report to the District documenting each and every deviation from the federally enforceable requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than six months after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to District in accordance with Rule 505. *Breakdown Conditions.* [Ref: District Rule 1303, 40 CFR 70.6(a)(3)]
- A16. Reporting Requirements/Compliance Certification.** The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. These reports shall be submitted on District forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations (excluding emergency upsets) from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1 and March 1, respectively, each year. Supporting monitoring data shall be submitted in accordance with the “Semi-Annual Compliance Verification Report” condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [Ref: District Rules 1303 and 1302]
- A17. Federally-enforceable Conditions.** Each federally-enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally enforceable or subject to the public/USEPA review [Ref: CAAA, § 502(b)(6), 40 CFR 70.6(b)]
- A18. Recordkeeping Requirements.** The permittee shall maintain records of required monitoring information that include the following:

- (a) The date, place as defined in the permit, and time of sampling or measurements;
- (b) The date(s) analyses were performed;

- (c) The company or entity that performed the analyses;
- (d) The analytical techniques or methods used;
- (e) The results of such analyses; and
- (f) The operating conditions as existing at the time of sampling or measurement;

The records, as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the District upon request.

[Ref: District Rule 1303, 40 CFR 70.6(a)(3)(ii)(A)]

A19. Conditions for Permit Reopening. The permit shall be reopened and revised for cause under any of the following circumstances:

- (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.
- (b) Inaccurate Permit Provisions: If the District or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- (c) Applicable Requirement: If the District or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally-enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which causes to reopen exist. If the permit is reopened, and revised, it will be reissued with the expiration date that was listed in the permit before the re-opening. [Ref: 40 CFR 70.7(f), 40 CFR 70.6(a)]

9.B Generic Conditions

- B.1 **Equipment Identification.** Identifying tag(s) or name plate(s) shall be displayed on the equipment to show manufacturer, model number, and serial number. The tag(s) or plate(s) shall be issued by the manufacturer or UCSB and shall be affixed to the equipment in a permanent and conspicuous position. [Ref: Rule 206]
- B.2 **Equipment Maintenance.** The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer's maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site. [Ref: Rule 206]
- B.3 **Solvent Cleaning Operations (Rule 321).** The Permittee shall comply with the operating requirement, equipment requirements and emission control requirements for all solvent cleaning and solvent cleaning machines subject to this Rule. Compliance with this condition shall be based on facility inspections. [Ref: Rule 321]
- B.4 **Architectural Coatings (Rule 323).** The Permittee shall comply with the emission standards listed in Section D of Rule 323.1. Compliance with this condition shall be based on facility inspections. [Ref: Rule 323.1]
- B.5 **Adhesives and Sealants (Rule 353).** The permittee shall only use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, that meet the ROC requirements of Rule 353, unless they otherwise qualify for exemption per Section B of the rule. [Ref: Rule 353]

9.C Requirements and Equipment Specific Conditions

C.1 **External Combustion Equipment.** The external combustion equipment listed in Attachment 10.2 are included in this emissions unit category.

The following conditions shall apply:

- (a) Emission Limits: The following emission limits shall apply. Compliance shall be based on the operational, monitoring, recordkeeping, and reporting conditions of this permit:
 - (i) *Mass Emission Limits.* Mass emissions from the external combustion units subject to this permit shall not exceed the limits listed in Table 5.3 and Table 5.4. These limits are only federally-enforceable for the units which are subject to NSR, as indicated in Attachment 10.9. [Ref: Rule 802]
 - (ii) *Emission Standards.* Each external combustion unit shall not exceed the exhaust concentration limits specified in Attachment 10.2. [Ref: 360, or 361 as applicable]
- (b) Operational Requirements: The equipment permitted herein is subject to the operational requirements listed in Attachment 10.2. The following additional requirements apply:
 - (i) *Heat Input Limits.* The hourly, daily and annual heat input limits to each unit shall not exceed the values listed in Table 5.1. These limits are based on the design rating of the unit and the annual heat input value as listed in the permit application. The fuel heat content listed in Table 5.1 shall be used for determining compliance. [Ref: Rule 802]
 - (ii) *Public Utility Natural Gas Fuel Sulfur Limit.* The total sulfur and hydrogen sulfide (H₂S) content (calculated as H₂S at standard conditions, 60°F and 14.7 psia) of the public utility natural gas fuel shall not exceed 80 ppmv and 4 ppmv respectively. Compliance with this condition shall be based on billing records or other data showing that the fuel gas is obtained from a public utility gas company. [Ref: Rule 802]
 - (iii) *Rule 360 Compliance.* Any boiler or hot water heater rated at or less than 2.000 MMBtu/hr and manufactured after October 17, 2003 shall be certified per the provisions of Rule 360. An ATC/PTO permit shall be obtained prior to installation of any grouping of Rule 360 applicable boilers or hot water heaters whose combined system design heat input rating exceeds 2.000 MMBtu/hr. [Ref: Rule 360]

(c) Monitoring: The equipment permitted herein is subject to the following monitoring requirements:

(i) *Fuel Usage Metering*. The volume of fuel gas used in these units shall be determined by one of the methods listed below. Attachment 10.2 identifies which method is approved for each unit. Except for changing to the Default Rating Method, written District approval is required to change to an alternate method.

1. Fuel Use Meter. The volume of fuel gas (scf) used shall be measured through the use of a dedicated District-approved fuel meter. The meter shall be temperature and pressure corrected. The fuel meter shall be accurate to within five percent (5%) of the full scale reading. The meter shall be calibrated according to manufacturer's specifications and the calibration records shall be made available to the District upon request.
2. Hour Meter. The volume of fuel gas (scf) used in the units shall be determined through the use of a dedicated District-approved hour meter or District-approved electronic management system that is capable of tracking and logging the unit's time on/off. Fuel usage shall be calculated based on the actual hours of operation (hours/year) times the heat input rating of the unit (Btu/hr) divided by the District-approved heating value of the fuel (Btu/scf).
3. Default Rating Method. The volume of fuel gas (scf) used shall be reported as permitted annual heat input limit for the unit (Btu/year) divided by the District-approved heating value of the fuel (Btu/scf).
[Ref: Rule 1303, 360, or 361 as applicable]

(ii) *Compliance Determinations*. The following compliance determinations shall apply:

1. Units Rated at 2.000 MMBtu/hr or Below. Units in this heat input range shall be tuned-up following the manufacturer's recommended tuning procedure or an alternative tuning procedure approved by the District. Attachment 10.2 defines the required tuning frequency.
2. Units Rated at 2.0 MMBtu/hr or Below – Subject to BACT. Any unit rated below 2.0 MMBtu/hr or below and subject to BACT requirements shall be tuned once every 12 months following the requirements of Section G of Rule 361 or by an alternative tuning procedure approved in-writing by the District.
3. Source Testing Units Rated greater than 2.000 MMBtu/hr. Source testing shall be performed at the frequency specified in Attachment 10.2 and conducted in accordance with the *Source Testing* permit condition. The District may, at its discretion, require UCSB to perform a source test on units subject to Rule 361.

4. Existing Units Rated Between 2.0 - 5.0 MMBtu/hr – Fired on Utility Natural Gas. As of June 20, 2019, any owner or operator of any existing unit fired exclusively on utility natural gas shall be tuned-up pursuant to the requirements of Section G of Rule 361. The District may, at its discretion, require any owner or operator of any unit subject to this rule to perform a source test per the test methods listed in Section H. An owner or operator may choose to comply with this section by performing District-approved source testing in lieu of tune-ups. Such source testing shall comply with the requirements of Section H.
5. Rule 361 Non-Operational Test Firing. No tune-up is required during a calendar year for any unit subject to Rule 361 that is not operated during that calendar year. This unit may be test fired to verify availability of the unit for its intended use but once test firing is completed it shall be shutdown. If test firing exceeds 24 hours per year, then within thirty (30) days of exceeding the 24 hour per year limit, a tune-up shall be conducted pursuant to Section G of Rule 361. [Ref: Rule 360, or 361 as applicable]

(d) Recordkeeping: The permittee shall maintain hardcopy records of the following:

- (i) *Fuel Use.* The volume of fuel gas used each year (scf) as determined by the fuel use monitoring option as listed in Attachment 10.2. Units that use a fuel meter shall measure and record volume of gas used each month (scf) and record the number of days in each month the unit is operated. Units that track fuel use using the Default Rating Method are not required to record the fuel usage. Units subject to the Rule 361.D.2 low use exemption shall record fuel use on a monthly and annual basis for each fuel type. [Ref: Rule 1303, 360, or 361 as applicable]
- (ii) *Tuning Records.* For units subject to Rule 361 tuning requirements, maintain copies of all *Rule 361 Tune-Up Reports* as specified in Step 12 of Procedure A and/or Step 6 of Procedure B of the tuning Attachment to Rule 361. For units subject to Rule 360, maintain documentation verifying the required tune-ups, including a complete copy of each tune-up report. [Ref: Rule 1303, 360, or 361 as applicable]
- (iii) *Non-Operational Test Firing.* A log that documents the date and number of hours that the unit was test fired in accordance with Rule 361.G.3. [Ref: Rule 361]
- (iv) *Source Test Reports.* Source test reports for all District-required source tests. [Ref: 361 as applicable]
- (v) *Fuel Use Meter Calibration Records.* Calibration records of District-approved fuel use meters. [Ref: Rule 1303, 361 as applicable]
- (vi) *Maintenance Logs.* Maintenance logs for the boilers, emission control systems and fuel flow meters (as applicable). [Ref: Rule 1303, 361 as applicable]

- (e) Reporting Requirements. On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by permit condition 9.C.6 (Semi-Annual Compliance Verification Reports) of this permit. [Ref: Rule 1303]

C.2 Stationary Emergency Standby Internal Combustion Engines. The equipment listed in Table 5.5 are included in this emissions unit category. The following conditions shall apply:

- (a) Emission Limits: The mass emissions from the equipment permitted herein shall not exceed the values listed in Table 5.7 and Table 5.8. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit. These limits are only federally-enforceable for the units which are subject to NSR, as indicated in Attachment 10.9. [Ref: Rule 802]
- (b) Operational Restrictions: The internal combustion engines are subject to the operational hour restrictions listed in Attachment 10.3. The following additional requirements listed below also apply. Emergency use operations, as defined in the ATCM¹, have no operational hour limitations. These limits are only federally-enforceable for the units which are subject to NSR, as indicated in Attachment 10.9. [Ref: Rule 802]
- (i) Maintenance & Testing Use Limit: The stationary emergency standby diesel-fueled compression ignition (CI) engine(s) subject to this permit, except for firewater pump engines, shall limit maintenance and testing² operations to no more than the hours listed in Attachment 10.3.
- (ii) Impending Rotating Outage Use: The stationary emergency standby diesel-fueled CI engine(s) subject to this permit may be operated in response to the notification of an impending rotating outage if all the conditions cited in the ATCM are met, as applicable.
- (iii) Fuel and Fuel Additive Requirements: The permittee may only add fuel and/or fuel additives to the engine, or any fuel tank directly attached to the engine that comply with the ATCM, as applicable.
- (iv) At-School and Near-School Provisions: The stationary emergency standby diesel-fueled engine at the Portola Dining Commons (Device #388928) and the diesel-fueled fire water pump engine at the Santa Catalina Residence Hall (Device #114029) may not be operated for non-emergency use, including maintenance and testing, whenever there is a school sponsored activity between 7:30 a.m. and 3:30 p.m. on days when school is in session.

¹ As used in the permit, "ATCM" means Section 93115, Title 17, California Code of Regulations. Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines

² "maintenance and testing" is defined in of the ATCM and may also be found on the District webpage at https://www.ourair.org/wp-content/uploads/ES_MT_DICE_Definitions.pdf

- (v) Operation Near Schools: The diesel-fueled 113 hp portable emergency water pump engine (Device #388929), and the diesel-fueled 546 bhp portable emergency standby diesel engine (DID# 398878) shall not be operated within 1,000 feet of Isla Vista Elementary school at any time.
[Ref: Rule 802]
- (vi) Non-Emergency Use Location Restriction: Operation of the portable emergency standby diesel engine (DID# 398878) for all non-emergency purposes shall only occur at the parking lot near Buildings 220, 222, and 224.
- (c) Monitoring: The equipment permitted herein is subject to the following monitoring requirements.
 - (i) Non-Resettable Hour Meter: Each stationary emergency standby diesel-fueled CI engine(s) subject to this permit shall have installed a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District has determined (in writing) that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [Ref: Rule 1303, 333, NSPS IIII, NSPS JJJJ as applicable]
 - (d) Recordkeeping. The permittee shall record and maintain the information listed below. Log entries shall be retained for a minimum five (5) from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 60 months from most recent entry shall be made available to District staff within 5 working days from request. District Form ENF-92 (*Diesel-Fired Emergency Standby Engine Recordkeeping Form*) can be used for this requirement.
 - (i) Emergency use hours of operation. [Ref: Rule 1303, 205.C, 333, Rule 333, NSPS IIII, NESHAP JJJJ as applicable];
 - (ii) Maintenance and testing hours of operation. [Ref: Rule 1303, 205.C, 333, Rule 333, NSPS IIII, NESHAP JJJJ as applicable];
 - (iii) Hours of operation for emission testing to show compliance with the ATCM (if specifically allowed for under this permit). [Ref: Rule 1303, 205.C, 333, Rule 333, NSPS IIII, NESHAP JJJJ as applicable];
 - (iv) Hours of operation to comply with the requirements of NFPA 25/100 {if applicable}. [Ref: Rule 1303, 205.C, 333, NSPS IIII, NESHAP JJJJ as applicable];
 - (v) Hours of operation for all uses other than those specified in items (i) - (iv) above along with a description of what those hours were for. [Ref: Rule 1303, 205.C, 333, NSPS IIII, NESHAP JJJJ as applicable];

(vi) The owner or operator shall document fuel use through the retention of fuel purchase records that demonstrate that the only fuel purchased and added to an emergency standby engine or engines, or to any fuel tank directly attached to an emergency standby engine or engines, meets the requirements of the ATCM and, at a minimum, contain the following information for each individual fuel purchase transaction:

1. identification of the fuel purchased as either CARB Diesel, or an alternative diesel fuel that meets the requirements of the Verification Procedure, or an alternative fuel, or CARB Diesel fuel used with additives that meet the requirements of the Verification Procedure, or any combination of the above.
2. amount of fuel purchased.
3. date when the fuel was purchased.
4. signature of owner or operator or representative of owner or operator who received the fuel.
5. signature of fuel provider indicating fuel was delivered.

[Ref: Rule 1303, 205.C as applicable]

(vii) Each time the portable emergency standby diesel engine (DID# 398878) is operated at a new location, the permittee shall record the following information in a log: the date, the address, and the purpose of the operation (i.e., emergency use, maintenance and testing, etc.). [Ref: Rule 1303, PTO 16255]

(e) Reporting Requirements. On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by permit condition 9.C.6 (Semi-Annual Compliance Verification Reports) of this permit. [Ref: Rule 1303]

C.3 **Surface Coating.** The equipment listed in Table 5.16 are included in this emissions unit category. The following conditions shall apply:

- (a) Emission Limits: The aggregate mass emissions from the equipment permitted herein shall not exceed the values listed in Table 5.9. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit. Compliance with the pound per day (lb/day) emission limit shall be demonstrated by dividing the monthly emissions [determined from records kept of coating and solvent use per condition C.3(d) below (*Recordkeeping*) by **21.7** days per month. Compliance with the ton per year (TPY) emission limit shall be demonstrated by compiling the monthly ROC emission records for the year. [Ref: PTO 10056-R3, ATC 14803]
- (b) Operational Restrictions: The equipment permitted herein is subject to the following operational restrictions listed below:
 - (i) Spray Booth Operation: Whenever surface coating materials are applied within the spray booth, the exhaust fan(s) shall be operating, effective overspray filters and baffle plates (if any) shall be in place and operational. [Ref: PTO 10056-R3, ATC 14803]
 - (ii) Spray Gun Cleaning: Cleaning of any spray gun after motor vehicle & mobile equipment coating use shall be conducted within an enclosed gun washer. [Ref: PTO 10056-R3, ATC 14803, Rule 321]
 - (iii) Prohibition: The use of any substance containing hexavalent chromium (Cr⁺⁶) or cadmium (Cd) is prohibited. [Ref: PTO 10056-R3, ATC 14803]
 - (iv) Storage of ROC-Containing Materials: All new and used materials containing reactive organic compounds (ROCs) shall be stored in closed containers equipped with a tight-fitting seal. Containers used for storing ROC-containing materials shall remain closed except during extraction or introduction of materials for use or storage. [Ref: PTO 10056-R3, ATC 14803]
- (c) Monitoring. The equipment permitted herein is subject to the following monitoring requirements:
 - (i) Spray booth filters shall be inspected prior to use of the booth and replaced when necessary to ensure control of particulate emissions and overspray. [Ref: PTO 10056-R3, ATC 14803]
 - (ii) During spray booth operation the operator shall verify that the booth manometer (if any) is functioning and indicating a measurable pressure drop. [Ref: PTO 10056-R3, ATC 14803]
- (d) Recordkeeping. The permittee shall record and maintain the following information. This data shall be maintained for a minimum of five (5) years from the date of each entry and made available to the District upon request:

- (i) For surface coating of metal parts & products activities: records required by District Rule 330.H. [Ref: PTO 10056-R3, ATC 14803, Rule 330, Rule 1303]
 - (ii) For wood and wood product surface coatings: records required by District Rule 351.I. [Ref: PTO 10056-R3, ATC 14803, Rule 351, 1303]
 - (iii) Any other records required by applicable District rules.
[Ref: PTO 10056-R3, ATC 14803, Rule 1303]
- (e) Reporting Requirements. On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by permit condition 9.C.6 (Semi-Annual Compliance Verification Reports) of this permit.
[Ref: Rule 1303]

C.4 **Gasoline Dispensing Facility.** The equipment listed in Table 5.17 is included in this emissions unit category. The following conditions shall apply:

- (a) Emission Limits: The mass emissions from the equipment permitted herein shall not exceed the values listed in Attachment 10.7. Compliance shall be based on the operational, monitoring, recordkeeping, and reporting conditions of this permit. Compliance with the pound per day (lb/day) emission limit shall be demonstrated by the permittee by dividing annual emissions (determined from the recordkeeping conditions) by **365** days per year. [Ref: PTO 9406, AP 9844, PTO 14414, ATC 15539]
- (b) Operational Restrictions: The equipment permitted herein is subject to the following operational restrictions listed below:
 - (i) The throughput of gasoline shall not exceed values listed Table 5.17
 - (ii) The equipment shall be maintained “Leak Free”. Leak free is defined as having a leak rate of three (3) drops per minute or less of a liquid containing reactive organic compounds.
 - (iii) Gauging and/or sampling devices on the tanks shall be equipped with vapor tight covers that shall be closed at all times except during gauging or sampling.
 - (iv) Any defective component of the vapor recovery system (VRS) shall be removed from service until it is repaired, replaced, or adjusted as necessary to ensure compliance.
 - (v) Equipment operation shall be conducted in compliance with all data, specifications and assumptions included with the applications and as documented in the District’s project file. The VRS system(s) shall be installed, operated and maintained in accordance with the applicable California Air Resources Board (“CARB”) Executive Orders.

[Ref: PTO 9406, AP 9844, PTO 14414, ATC 15539, Rule 316]

- (c) Monitoring. The equipment permitted herein is subject to the following monitoring requirements:
 - (i) A non-resettable fuel meter shall be used to measure the amount of fuel dispensed from the storage tank. This meter shall be operational at all times and shall be maintained and calibrated according to manufacturer’s specifications.
 - (ii) *VRS Maintenance and Compliance Testing - Routine/Ongoing Operations.* The permittee shall routinely conduct and successfully pass the VRS system tests as outlined in Attachment 10.4, as well as, any VRS specific tests required in the applicable Executive Orders. These tests shall be conducted pursuant to the procedures outlined in Attachment 10.4 and shall be performed pursuant to test protocols approved by the ARB. In order for the District to witness testing, the permittee shall notify the District of the planned testing date not less than five (5)

business days prior to the testing. All data for each test (including any data showing initial test failures) shall be sent to the District at 260 North San Antonio Drive, Suite A, Santa Barbara, CA, 93110 (Attn: *Engineering & Compliance Division*) within 30 days of successful test completion, using District or ARB approved reporting forms.

[Ref: PTO 9406, AP 9844, PTO 14414, ATC 15539]

- (d) Recordkeeping. The permittee shall record and maintain the following information. This data shall be maintained for a minimum of five (5) years from the date of each entry and made available to the District upon request:
 - (i) The volume (gallons) of gasoline dispensed from the AST per month and per year;
 - (ii) *Inspection, Maintenance, Repair and Testing Records*. The permittee shall keep clear and legible records of all inspections, maintenance, repairs, and testing of any of the gasoline dispensing VRS components at this facility. This includes, but is not limited to, the activities for normal operation and maintenance per the manufacturer, ISD control panel alarm tracking (if applicable), performance and/or compliance testing according to ARB protocols, and those following damage to dispensing equipment from a “driveoff” or other kind of damage. The permittee shall ensure that all records obtained from third party contractors are a legible form. The records listed in Attachment 10.5 shall be maintained on site by the permittee for at least three years and shall be made available for District inspection upon request.
- (e) Reporting Requirements. On a semi-annual basis, a report detailing the previous six month’s activities shall be provided to the District. The report must list all data required by permit condition 9.C.6 (Semi-Annual Compliance Verification Reports) of this permit.
[Ref: Rule 1303]

C.5 Source Testing. The following source testing provisions shall:

- (a) Source testing shall be performed upon written request from the District. The permittee shall conduct source testing of air emissions and process parameters listed in Table 4.3 of this permit. More frequent source testing may be required if the equipment does not comply with permitted limitations or if other compliance problems, as determined by the District, occur.
- (b) The permittee shall submit a written source test plan to the District for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's Source Test Procedures Manual (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.
- (c) Source test results shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates in Table 5.3 and applicable permit conditions, rules and NSPS (if applicable). All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.
- (d) A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test cannot be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.
- (e) The timelines in (a), (b), and (c) above may be extended for good cause provided a written request is submitted to the District at least three (3) days in advance of the deadline, and approval for the extension is granted by the District.

C.6 **Semi-Annual Compliance Verification Reports.** Twice a year, UCSB shall submit a compliance verification report to the District. Each report shall be used to verify compliance with the prior two calendar quarters. The first report shall cover calendar quarters 1 and 2 (January through June) and shall be submitted no later than September 1st. The second report shall cover calendar quarters 3 and 4 (July through December) and shall be submitted no later than March 1st. Each report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit (if applicable for that quarter). These reports shall be submitted by hardcopy and electronic pdf copy and in a format approved by the District. All logs and other basic source data not included in the report shall be available to the District upon request. The second report shall also include an annual report for the prior four quarters. Pursuant to Rule 212, a completed District Annual Emissions Inventory questionnaire shall be included in the annual report or submitted electronically via the District Webpage. The report shall include the following information:

External Combustion Equipment:

- (i) *Fuel Use Data.* The fuel use data required in the Recordkeeping Condition above. Units that track fuel use using the Default Rating Method are not required to submit an annual report for fuel use.
- (ii) *Tuning Records.* Tuning Records as required in the Recordkeeping Condition above.
- (iii) *Rule 361 Test Firing Records.* A copy of the Rule 361 Non-Operational Test Firing log.
- (iv) *Source Test Report Results.* Results of all source test reports.

[Ref: Rule 1303, 360, or 361 as applicable]

Stationary Emergency Standby Internal Combustion Engines:

- (v) emergency use hours of operation. [Ref: Rule 1303, 205.C, 333, Rule 333, NSPS IIII, NESHAP JJJJ as applicable];
- (vi) maintenance and testing hours of operation. [Ref: Rule 1303, 205.C, 333, Rule 333, NSPS IIII, NESHAP JJJJ as applicable];
- (vii) hours of operation for emission testing to show compliance with the ATCM {if specifically allowed for under this permit}. [Ref: Rule 1303, 205.C, 333, Rule 333, NSPS IIII, NESHAP JJJJ as applicable];
- (viii) hours of operation to comply with the requirements of NFPA 25/100 {if applicable}. [Ref: Rule 1303, 205.C, 333, NSPS IIII, NESHAP JJJJ as applicable];

- (ix) hours of operation for all uses other than those specified in items (v) - (viii) above along with a description of what those hours were for. [Ref: Rule 1303, 205.C, 333, NSPS IIII, NESHAP JJJJ as applicable];
- (x) The owner or operator shall document fuel use through the retention of fuel purchase records that demonstrate that the only fuel purchased and added to an emergency standby engine or engines, or to any fuel tank directly attached to an emergency standby engine or engines, meets the requirements of the ATCM and, at a minimum, contain the following information for each individual fuel purchase transaction:
 - 1. identification of the fuel purchased as either CARB Diesel, or an alternative diesel fuel that meets the requirements of the Verification Procedure, or an alternative fuel, or CARB Diesel fuel used with additives that meet the requirements of the Verification Procedure, or any combination of the above.
 - 2. amount of fuel purchased
 - 3. date when the fuel was purchased.
 - 4. signature of owner or operator or representative of owner or operator who received the fuel.
 - 5. signature of fuel provider indicating fuel was delivered.

[Ref: Rule 1303, 205.C as applicable]

- (xi) A copy of the portable emergency standby diesel engine (DID# 398878) operating log which includes records of the following information for each new location the engine operates: the date, the address, and the purpose of the operation (i.e., emergency use, maintenance and testing, etc.). [Ref: Rule 1303, PTO 16255]

Solvent Coating Operations:

- (xii) For surface coating of metal parts & products activities: records required by District Rule 330.H. [Ref: PTO 10056-R3, Rule 330, Rule 1303]
- (xiii) For wood and wood product surface coatings: records required by District Rule 351.I. [Ref: PTO 10056-R3, Rule 351, 1303]
- (xiv) Any other records required by applicable District rules. [Ref: PTO 10056-R3, Rule 1303]
- (xv) The report shall consist of a completed form ENF-56 (rev 12/2009 or later), or other District-approved form containing the same data. *This report shall include a copy of the "ROC Monthly Purchase Summary" data sheets provided by the distributor to the permittee for each month of the calendar year.*

[Ref: PTO 10056-R3, Rule 1303]

Gasoline Dispensing Facility:

- (xvi) The volume (gallons) of gasoline dispensed from the AST for each month and for the year.
 - (xvii) Results of the annual Static Leak Decay Test.
- C.7 **Best Available Control Technology (BACT).** The permittee shall apply emission control technology and plant design measures the represent BACT to the operation of the equipment/facilities described in Section 4.7. Tables 4.1 and 4.2 and the *Emissions, Operational Restrictions, Monitoring, Recordkeeping and Reporting* conditions of this permit define the specific control technology and performance standard emission limits for BACT. The BACT shall be in place, and shall be operational at all times, for the life of the project. BACT related monitoring, recordkeeping and reporting requirements are defined in those specific permit conditions. [Ref: Rule 802]
- C.8 **Documents Incorporated by Reference.** The documents listed below, including any District-approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition. These documents shall be implemented for the life of the project:
- *Fuel Use Monitoring Plan (FUMP)* (August 4, 2015 any subsequent District-approved updates). [Ref: Rule 1303]
 - *Emergency Episode Plan* (August 21, 2015 and any subsequent District-approved updates). [Ref: Rule 603]
 - *Rule 361 Compliance Plan* (June 20, 2019 and any subsequent District-approved updates). [Ref: Rule 361]
- C.9 **Offsets.** The permittee shall comply with the offset requirements of Regulation VIII by maintaining the Emission Reduction Credits identified in Table 7.2. Emission reduction credits sufficient to offset the permitted NOx emissions increase identified in Table 7.1 shall be in place for the life of the project. [Ref: Rule 802, Rule 804, ATC 16116, ATC-Mod 16116-01]

9.D District-Only Conditions

- D.1 **Stationary Emergency Standby Internal Combustion Engines.** The equipment listed in Attachment 10.3 are included in this emissions unit category. The following conditions shall apply:
- (a) Emission Limits: N/A
 - (b) Operational Restrictions:
 - (i) Firewater Pumps: The stationary emergency standby diesel-fueled CI engines subject to this permit that are operated as firewater pumps shall not operate more than the number of hours necessary to comply with the testing requirements of the current National Fire Protection Association (NFPA) 25 - “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems”.
- D.2 **Notification of Loss of Exemption.** Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in the ATCM from all or part of the requirements of the ATCM, shall notify the District within five days after they become aware that the exemption no longer applies and shall demonstrate compliance within 180 days after the date the exemption no longer applies.
- D.3 **Enrollment in a DRP/ISC - January 1, 2005.** Any stationary diesel CI engine rated over 50 bhp that enrolls for the first time in a Demand Response Program/Interruptible Service Contract as defined in the ATCM) on or after January 1, 2005, shall first obtain an District Authority to Construct permit to ensure compliance with the emission control requirements and hour limitations governing ISC engines.
- D.4 **Notification of Non-Compliance.** Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in the ATCM shall notify the District immediately upon detection of the violation and shall be subject to District enforcement action.
- D.5 **Temporary Engine Replacements - DICE ATCM.** Any reciprocating internal combustion engine subject to this permit and the stationary diesel ATCM may be temporarily replaced only if the requirements (a – h) listed herein are satisfied.
- (a) The permitted engine that is being temporarily replaced is in need of routine repair or maintenance.
 - (b) The permitted engine does not have a cracked block, unless the block will be replaced under manufacturer’s warranty.
 - (c) Replacement parts are available for the permitted engine.
 - (d) The permitted engine is returned to its original service within 180 days of installation of the temporary engine.

- (e) The temporary replacement engine has the same or lower manufacturer rated horsepower and same or lower potential to emit of each pollutant as the permitted engine. At the written request of the permittee, the District may approve a replacement engine with a larger rated horsepower if the proposed temporary engine has manufacturer guaranteed emissions (for a brand new engine) or source test data (for a previously used engine) less than or equal to the permitted engine.
- (f) The temporary replacement engine shall comply with all rules and permit requirements that apply to the permitted engine.
- (g) For each permitted engine to be temporarily replaced, the permittee shall submit a completed *Temporary IC Engine Replacement Notification* form (Form ENF-94) within 14 days of the temporary engine being installed. This form may be sent hardcopy, or can be e-mailed (e-mail: engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).
- (h) Within 14 days of returning the original permitted engine to service, the permittee shall submit a completed *Temporary IC Engine Replacement Report* form (Form ENF-95). This form may be sent hardcopy, or can be e-mailed (e-mail: engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

Any engine in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. If the requirements of this condition are not met, the permittee must obtain an ATC before installing or operating a temporary replacement engine.

D.6 Permanent Engine Replacements. The permittee may install a new engine in place of an engine permitted herein without first obtaining an ATC only if the requirements (a – g) listed herein are satisfied.

- (a) The permitted stationary diesel-fueled engine is an E/S engine, a firewater pump engine or an engine used for an essential public service (as defined by the District).
- (b) The permitted engine breaks down, cannot be repaired, and needs to be replaced by a new permanent engine.
- (c) The facility provides “good cause” (in writing) within 7 days of installation of the new permanent engine (or temporary engine), for the need to install a new permanent engine before an ATC can be obtained for a new engine.
- (d) The new permanent engine must comply with the requirements of the ATCM for new engines. A temporary replacement engine may be used while the new permanent engine is being procured only if it meets the requirements (e - h) of the *Temporary Engine Replacements - DICE ATCM* permit condition D.5

- (e) An Authority to Construct application for the new permanent engine is submitted to the District within 15 days of the existing engine being replaced. (these timelines include the use of a temporary engine). Any temporary engine installed may operate up to 225 days from the installation date, the initiation of SCDP for the new permanent engine, or the first day the new permanent engine is operated under an IPAP agreement, whichever comes first.
- (f) Notwithstanding the application timeline in condition D.6(e), projects classified as formal capital projects under the California Public Contract Code shall submit an Authority to Construct application for the new permanent engine within 180 days of the existing engine being replaced by a temporary engine. The temporary engine may operate up to 365 days from the installation date, the initiation of SCDP for the new permanent engine, or the first day the new permanent engine is operated under an IPAP agreement, whichever comes first. In order to qualify for the extended timeline, the facility shall provide documentation that the project is classified as a formal capital project under the California Public Contract Code. The District may extend these timelines upon written request.
- (g) For each new permanent engine installed pursuant to this condition, the permittee shall submit a completed *Permanent IC Engine Replacement Notification* form (Form ENF-96) within 14 days of the new engine being installed. This form may be sent hardcopy, or can be e-mailed (e-mail: enr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

Any engine installed pursuant to this condition shall be immediately shut down if the District determines that the requirements of this condition have not been met.

- D.7 **Nuisance (Rule 303).** Except as otherwise provided in Section 41705 of the California H&SC, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- D.8 **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303.
- D.9 **Visible Emissions (Rule 302).** The permittee shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:
 - (a) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or

- (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.5.(a) above.

For all combustion sources listed in Section 9.C, UCSB shall be in compliance with the requirements of this Rule in accordance with the monitoring and compliance recordkeeping procedures in Section 9.C.

D.10 Temporary External Combustion Unit Replacement. Permitted units may be replaced temporarily only if the requirements listed below are satisfied:

- (a) The permitted unit is in need of routine repair or maintenance.
- (b) The permitted unit that is undergoing routine repair or maintenance is returned to its original service within 180 days of installation of the temporary unit.
- (c) The existing units must meet the emission limits established in Rule 361.
- (d) The fuel usage for the existing units must be monitored using District approved, pressure and temperature correcting fuel meters.
- (e) The temporary replacement unit has the same or lower manufacturer MMBtu rating and same or lower potential to emit of each pollutant as the permitted unit that is being temporarily replaced. At the written request of the permittee, the District may approve a replacement unit with a larger rated MMBtu rating than the permitted unit if the proposed temporary unit has manufacturer guaranteed emissions (for a brand new unit) or source test data (for a previously used unit) less than or equal to the permitted unit.
- (f) The temporary replacement unit shall comply with all rules and permit requirements that apply to the permitted unit that is undergoing routine repair or maintenance.
- (g) For each permitted unit to be temporarily replaced, the permittee shall notify the District within 14-days of the temporary unit being installed. (Attn: Engineering Supervisor).

Any unit in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. [Ref: Rule 206]

D.11 Emergency External Combustion Unit Replacements. Any external combustion unit subject to this permit may be replaced without an ATC permit only if all the requirements listed below are satisfied:

- (a) The unit breaks down, cannot be repaired, and needs to be replaced by a new unit.
- (b) Any boiler or hot water heater rated at or less than 2.000 MMBtu/hr shall be certified per the provisions of Rule 360.

- (c) Any boiler or water heater rated greater than 2.000 MMBtu/hr and less than 5.000 MMBtu/hr shall be guaranteed by the manufacturer to meet the emission limits of Rule 361.
- (d) Any boiler or water heater rated greater than or equal to 5.000 MMBtu/hr shall be guaranteed by the manufacturer to meet the emission limits of Rule 342.
- (e) The facility provides “good cause” (in writing) within 7 days of installation of a new permanent unit or temporary unit for the immediate need to install a permanent or temporary replacement unit before an ATC permit can be obtained for a new unit. The new unit must comply with the operational requirements and emission limits for new units. If a new unit is not immediately available, a temporary unit may be used while the new replacement unit is being procured. During this time, the temporary replacement unit must meet the same operational requirements and emission limits as the new unit.
- (f) The “good cause” notification shall include the following:
 - (i) A copy of the emission certification or guarantee listed above.
 - (ii) A calculation of the daily and annual potential to emit of the new unit, based on the certified or guaranteed emission factors, and operation 24 hours per day, 8,760 hours per year at the unit’s rated heat input.
 - (iii) A demonstration that the potential to emit of the unit is below the BACT threshold for all pollutants.
 - (iv) A demonstration that the sum of the potential to emit of the unit plus the current stationary source potential to emit is below the offset threshold for all pollutants or the replacement unit qualifies for the Rule 802.B.2 BACT offset exemption.
- (g) An Authority to Construct application for the new permanent unit is submitted to the District within 15 days of the existing unit being replaced. (these timelines include the use of a temporary unit). Any temporary unit installed may operate up to 225 days from the installation date, the initiation of SCDP for the new permanent unit, or the first day the new permanent unit is operated under an IPAP agreement, whichever comes first.
- (h) Notwithstanding the application timeline in condition D.11(g), projects classified as formal capital projects under the California Public Contract Code shall submit an Authority to Construct application for the new permanent unit within 180 days of the existing unit being replaced by a temporary unit. The temporary unit may operate up to 365 days from the installation date, the initiation of SCDP for the new permanent unit, or the first day the new permanent unit is operated under an IPAP agreement, whichever comes first. In order to qualify for the extended timeline, the facility shall provide documentation that the project is classified as a formal capital project under the California Public Contract Code. The District may extend these timelines upon written request.

- (i) The facility shall obtain written District approval prior to installing the new unit.

For the purpose of this Condition, an external combustion unit replacement includes replacement of burner assemblies. The District's written approval in (i) above shall act as a temporary ATC pursuant to District Rule 201 and Regulation VIII.

Any external combustion unit installed pursuant to this permit condition shall be immediately shut down if the District determines that the requirements of this condition have not been met. Such notification shall be in writing from the District.

AIR POLLUTION CONTROL OFFICER

DATE

Notes: Reevaluation Due Date: December 2029

This permit supersedes PT-70 13725-R3 and permits listed in Attachment 10.9

Attachments:

10.1	Permitted Equipment
10.2	External Combustion Equipment Operational Requirements
10.3	Internal Combustion Equipment Operational Requirements
10.4	Vapor Recovery System Testing Requirements
10.5	Vapor Recovery Facility Repair Log and Testing Records
10.6	Health Risk Assessment Documentation
10.7	Gasoline Tank Emissions
10.8	Coating Operation Emissions
10.9	Permits Incorporated into PT-70 13725 R4
10.10	Maps of UCSB
10.11	Fee Statement
10.12	Permit Exempt Equipment
10.13	Draft Comments

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