



Kirtland Air Force Base  
20.11.41 NMAC Construction Permit Application  
Emergency Generator  
Building 737 Munitions Complex  
Administration Facility

377 MSG/CE Environmental  
Kirtland AFB, New Mexico

A handwritten signature in black ink, appearing to be the initials "KT".

Application received February 2, 2026

# TABLE OF CONTENTS

---

## TABLE OF CONTENTS

<b>1. GENERAL INFORMATION</b>	<b>1-1</b>
1.1 Executive Summary.....	1-1
<b>2. DESCRIPTION OF FACILITY AND EMISSIONS INFORMATION</b>	<b>2-1</b>
2.1 Description of the Facility.....	2-1
2.2 Process Flow .....	2-2
2.3 Air Pollutant Emissions and Calculation Methodology .....	2-3
2.3.1 Emergency-Fired Diesel Generator (Unit ID: 19193).....	2-3
2.4 Emission Calculations.....	2-4
2.5 Supporting Information.....	2-5
<b>3. OPERATIONAL PLAN – AIR EMISSIONS DURING SSM</b>	<b>3-6</b>
3.1 Emergency Generator Operational Plan.....	3-6
3.1.1 Emergency Generator Startup Procedure.....	3-6
3.1.2 Emergency Generator Shutdown Procedure.....	3-6
3.1.3 Emergency Generator Maintenance .....	3-6
<b>4. AIR DISPERSION MODELING ANALYSIS</b>	<b>4-1</b>
<b>5. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS</b>	<b>5-1</b>
<b>APPENDIX A. APPLICATION FORMS</b>	<b>A-1</b>
<b>APPENDIX B. PRE-PERMIT APPLICATION MEETING</b>	<b>B-1</b>
<b>APPENDIX C. NOTICE OF INTENT TO CONSTRUCT</b>	<b>C-1</b>
<b>APPENDIX D. COMPLIANCE HISTORY DISCLOSURE FORM</b>	<b>D-1</b>
<b>APPENDIX E. FACILITY LOCATION AND AERIAL PHOTOGRAPH</b>	<b>E-1</b>
<b>APPENDIX F. ZONING REQUIREMENT</b>	<b>F-1</b>

# 1. GENERAL INFORMATION

---

## 1.1 Executive Summary

This application is being submitted for an Authority to Construct (ATC) for an initial permit application for an emergency generator to be located at 3300 Ammo Road, Kirtland AFB, Albuquerque, NM 87117.

In accordance with 20.11.41.13.E NMAC, this application submittal includes all the requirements set forth by the department including:

- (1) Application Forms
- (2) Owner and Operator's Name and Mailing Address
- (3) Application Date
- (4) Sufficient Attachments: Calculations, Potential Emission Rate, Nature of All Regulated Contaminants, Actual Emissions,
- (5) Operational and Maintenance Strategy
- (6) Topographical Map
- (7) Aerial Photograph of Proposed Location
- (8) Complete Description of all Sources of Regulated Air Contaminants and Process Flow Diagram
- (9) Full Description of Air Pollution Control Equipment
- (10) Description of Equipment or Methods used for Emission Measurement
- (11) Maximum and Normal Operating Time Schedules of the Source
- (12) Other Relevant Information
- (13) Applicant Signature
- (14) Accompanied by a Registration Fee
- (15) Proof of Public Notice Requirements

Equipment to be authorized at this facility after issuance of the Construction Permit is detailed below:

One (1) diesel-fired 27 HP Kubota D1703M generator (MUNS Emergency Generator AQUIS ID 19195)

The uncontrolled emissions are based on 8760 hours per year. Requested controlled emissions are based on 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. These emissions are included in the department's application forms.

## **2. DESCRIPTION OF FACILITY AND EMISSIONS INFORMATION**

---

The following section summarizes the source of emissions, process description, methodology, and emission factors used to estimate air pollutant emissions from the facility.

### **2.1 Description of the Facility**

The backup generator's main function is to provide backup power to support a small Control Room's operations if primary power is interrupted.

40 CFR 60 Subpart IIII is applicable to Stationary Compression Ignition Internal Combustion Engines constructed after July 11, 2005. Thus, this emergency generator will be subject to this regulation and will comply with regulation. Additionally, the unit is subject to 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.

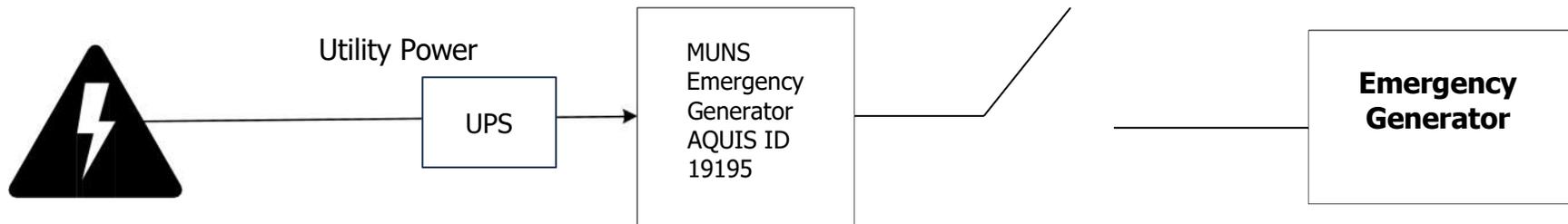
The unit will comply with the requirements for RICE at existing area sources.

## 2.2 Process Flow

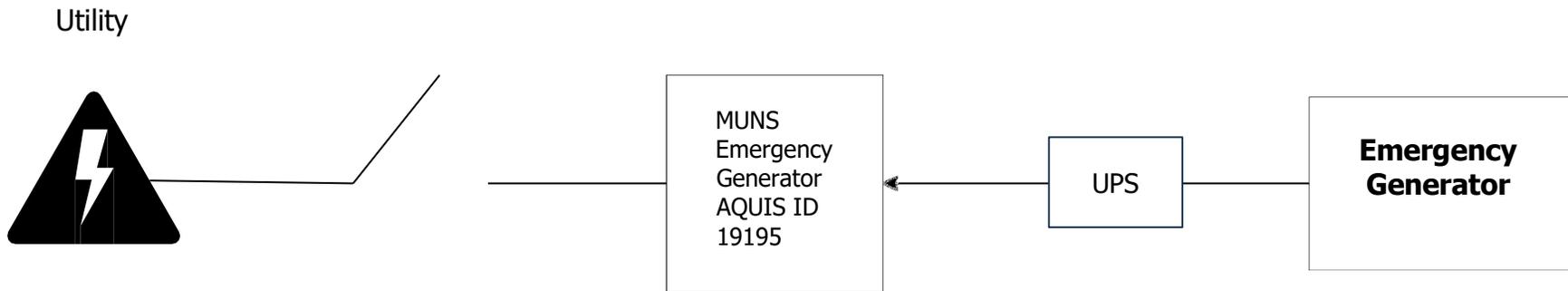
The main source at this facility for back-up / stand-by power is the generator which provides power in the event of a utility (PNM) power outage. The simplified process flow diagram represents the normal operating and loss of utility power conditions.

# Emergency Generator Process Flow Diagram

Normal Operating Conditions



Loss of Utility Power



## 2.3 Air Pollutant Emissions and Calculation Methodology

### 2.3.1 Emergency-Fired Diesel Generator (MUNS Generator AQUIS ID 19195)

Emissions from the emergency generator are a result of the combustion of diesel fuel. NO<sub>x</sub> + NMHC, CO, and PM combustion emissions are calculated based on the EPA's Nonroad Compression-Ignition Engines: Exhaust Emission Standards for Tier 4 units, EPA-420-B-16-022. To separate NO<sub>x</sub> from the NO<sub>x</sub> + NMHC emission factor, NO<sub>x</sub> is assumed to be 95% based on the California Environmental Protection Agency (CARB Revised date: DEC 18, 2011). To separate NMHC (VOCs) from the NO<sub>x</sub> + NMHC emission factor, NMHC is assumed to be 5% based on the same method NO<sub>x</sub> was determined above. The Tier 4 emission factor (lb/hp-hr) was multiplied by the engine's generator standby rating (HP) and pounds.

SO<sub>2</sub> emissions are estimated based on AP-42 Table 3.3-1 (generator rating hp <600hp) and an additional an additional assumption of 100% of sulfur into SO<sub>2</sub>. The AP-42 emission factor (lb/hp-hr) was multiplied by the engine horsepower (hp) to calculate hourly emissions.

HAPs are based on AP-42 Table 3.3-1 and 3.3-2. HAPs include formaldehyde, acetaldehyde, acrolein, benzene, toluene, xylene, propylene, 1,3-butadiene, and naphthalene. For HAP emissions, the heat value of 137,000 Btu/gal (from AP-42 Appendix A) and the manufacturer provided fuel usage of 1.12 gal/hr were used to calculate a maximum heat rate (MMBtu/hr) for the unit. This was then multiplied by the lb/MMBtu HAP emission factor from AP- 42 Table 3.3-2 to calculate all HAP lb/hr emissions.

To calculate the uncontrolled emission rate in tons per year, the lb/hr rate was multiplied by 8760 hr/yr and converted to tons (1 ton = 2,000 lb). The controlled emission rate in ton per year, the lb/hr rate was multiplied by the assumption of 100 hours per year for monthly testing as this is emergency stand-by only.

## 2.4 Emission Calculations

**Kirtland Air Force Base- MUNS Emergency Stand-by Generator Table 1**

*Uncontrolled Emissions*

Unit	Description	NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		HAP	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Emergency Generator AQUIS ID 19195	Emergency Generator	0.32	1.38	0.29	1.30	0.02	0.07	0.06	0.24	2.0E-02	0.08	2.0E-02	0.08	1.00E-03	4.28E-03
<b>Total</b>		<b>0.32</b>	<b>1.38</b>	<b>0.29</b>	<b>1.30</b>	<b>0.020</b>	<b>0.070</b>	<b>0.06</b>	<b>0.24</b>	<b>2.0E-02</b>	<b>0.08</b>	<b>2.0E-02</b>	<b>0.08</b>	<b>1.00E-03</b>	<b>4.28E-03</b>

*Controlled Emissions*

Unit	Description	NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		HAP	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Emergency Generator AQUIS ID 19195	Emergency Generator	0.32	0.016	0.29	0.015	0.02	8.0E-04	0.06	2.8E-03	2.0E-02	9.0E-04	2.0E-02	9.0E-04	1.00E-03	4.9E-05
<b>Total</b>		<b>0.32</b>	<b>0.016</b>	<b>0.29</b>	<b>0.015</b>	<b>0.02</b>	<b>8.0E-04</b>	<b>0.06</b>	<b>2.8E-03</b>	<b>2.0E-02</b>	<b>9.0E-04</b>	<b>2.0E-02</b>	<b>9.0E-04</b>	<b>1.00E-03</b>	<b>4.9E-05</b>

**Kirtland Air Force Base- MUNS Emergency Stand-By Generator TABLE 2**

Unit: Emergency Generator AQUIS ID 19195  
 Engine Make: Kubota  
 Engine Family: SKBXL02.2FCC  
 Uncontrolled Annual Hours of Operation: 8760 hr/yr  
 Requested Hours of Operation: 100 hr/yr  
 Generator Standby Rating: 20.1334 kW

NOTE: Converted from Nominal Engine output of 27 hp to Kw \*(0.7457 kw/hp)

Engine Nameplate Horsepower: 27 hp  
 Fuel: Diesel  
 Fuel Usage: 1.12 gal/hr  
 Diesel Heat Value<sup>5</sup>: 137000.00 Btu/gal

Emission Standard: EPA-420-B-16-022; AP Table 3.3-1 and Table 3.3-2

Pollutant <sup>1</sup>	Diesel Emission Factor (g/kW-hr)	Diesel Emission Factor (lb/hp-hr)	Potential Emissions (lb/hr)	Uncontrolled Emissions (tpy)	Controlled Emissions (tpy)	Emission Factor Source	Potential Emission Calculation
NOx <sup>1,2</sup>	7.12		0.32	1.38	0.016	EPA-420-B-16-022, using 95% of NMHC+Nox for Tier 4	PTE = Emission factor (g/kW-hr)* Engine Power (kW)/Conversion (lb/453.59 g)
CO <sup>1</sup>	6.6		0.29	1.28	0.015	EPA-420-B-16-022	PTE = Emission factor (g/kW-hr)* Engine Power (kW)/Conversion (lb/453.59 g)
1,3 PM <sub>10</sub>	0.4		0.02	0.08	0.0009	EPA-420-B-16-022	PTE = Emission factor (g/kW-hr)* Engine Power (kW)/Conversion (lb/453.59 g)
PM <sub>2.5</sub> <sup>3</sup>	0.4		0.02	0.08	0.0009	EPA-420-B-16-022	PTE = Emission factor (g/kW-hr)* Engine Power (kW)/Conversion (lb/453.59 g)
VOC <sup>1,2</sup>	0.38	-	0.02	0.07	0.0008	EPA-420-B-16-022, using 5% of NMHC + NOx for Tier 4	PTE = Emission factor (g/kW-hr)* Engine Power (kW)/Conversion (lb/453.59 g)
SO <sub>2</sub> <sup>4</sup>	-	0.00205	0.06	0.24	0.0028	AP 42: Table 3.3-1	PTE = Emission factor (lb/hp-hr) * Engine Power (hp)

**HAP Emissions**

Pollutant <sup>5</sup>	Diesel Emission Factor (lb/MMBtu)	Potential Emissions (lb/hr)	Uncontrolled Emissions (tpy)	Controlled Emissions (tpy)	Emission Factor Source	Potential Emission Calculation
Benzene	9.33E-04	1.4E-04	6.3E-04	7.2E-06	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Toluene	4.09E-04	6.3E-05	2.7E-04	3.1E-06	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Xylenes	2.85E-04	4.4E-05	1.9E-04	2.2E-06	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
1,3-Butadiene	3.91E-05	6.0E-06	2.6E-05	3.0E-07	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Formaldehyde	1.18E-03	1.8E-04	7.9E-04	9.1E-06	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Propylene	2.58E-03	3.96E-04	1.7E-03	1.98E-05	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Acetaldehyde	7.67E-04	1.18E-04	5.2E-04	5.88E-06	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Acrolein	9.25E-05	1.42E-05	6.2E-05	7.10E-07	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
Naphthalene	8.48E-05	1.30E-05	5.7E-05	6.51E-07	AP-42 Table 3.3-2	PTE = Emission factor (lb/MMBtu) * Diesel Heat Value (BTU/gal) *Fuel Usage (gal/hr) / 1000000BTU/MMBTU
<b>Total</b>	<b>6.4E-03</b>	<b>0.001</b>	<b>0.00428</b>	<b>4.9E-05</b>	-	-

<sup>1</sup> NOx, CO, PM, SO2 emission factors are referenced from Nonroad Compression-Ignition Engines: Exhaust Emission Standards for Tier 4 units; EPA-420-B-16-022.  
<sup>2</sup> VOC values are derived from NOx+NMHC based on the assumption of 95% NOx and 5% NMHC (VOC) according to Table D-25 on California Environmental Protection Agency (CARB, Revised date: Dec 18, 2011) & EPA420-R-05-015 which states that THC=VOC=NMHC  
<sup>3</sup> PM conservatively assumed to be PM-PM10-PM2.5  
<sup>4</sup> SO2 is calculated based on AP 42 Table 3.3-1.  
<sup>5</sup> HAPs emissions factors are referenced from AP-42 Table 3.3-1 & 3.3-2. HAPs include: Formaldehyde, Acetaldehyde, Acrolein, Benzene, Toluene, Xylene, Propylene, 1,3-Butadiene, and Naphthalene.  
<sup>6</sup> Appendix A, AP 42.

Exhaust Parameters <sup>7</sup>		
Stack Height	0.33	ft
Exit Diameter	0.16	ft
Stack Area	0.022	ft <sup>2</sup>
Exhaust Flow	99.00	ft <sup>3</sup> /min
Exhaust Flow	1.65	ft <sup>3</sup> /s
Exit Velocity	75.0	ft/s
Temperature	644	°F

<sup>7</sup> The velocity, diameter, and temperature were taken from the NMED missing stack parameter table.

## **2.5 Supporting Information**

AP-42 Tables 3.3-1, 3.3-2: Gasoline and Diesel Industrial Engines

AP-42 Appendix A: Miscellaneous Data and Conversion Factors

40 CFR 60.4201 (40 CFR 1039.101) Federal New Source Performance Standards (NSPS) for Stationary Non-Emergency Diesel Engines, Tier 4

CARB Guidance

EPA420-R-05-015

Generator Specifications

Ultra Low Sulfur Diesel (ULSD) Safety Data Sheet (SDS)

Table 3.3-1. EMISSION FACTORS FOR UNCONTROLLED GASOLINE AND DIESEL INDUSTRIAL ENGINES<sup>a</sup>

Pollutant	Gasoline Fuel (SCC 2-02-003-01, 2-03-003-01)		Diesel Fuel (SCC 2-02-001-02, 2-03-001-01)		EMISSION FACTOR RATING
	Emission Factor (lb/hp-hr) (power output)	Emission Factor (lb/MMBtu) (fuel input)	Emission Factor (lb/hp-hr) (power output)	Emission Factor (lb/MMBtu) (fuel input)	
NO <sub>x</sub>	0.011	1.63	0.031	4.41	D
CO	6.96 E-03 <sup>d</sup>	0.99 <sup>d</sup>	6.68 E-03	0.95	D
SO <sub>x</sub>	5.91 E-04	0.084	2.05 E-03	0.29	D
PM-10 <sup>b</sup>	7.21 E-04	0.10	2.20 E-03	0.31	D
CO <sub>2</sub> <sup>c</sup>	1.08	154	1.15	164	B
Aldehydes	4.85 E-04	0.07	4.63 E-04	0.07	D
TOC					
Exhaust	0.015	2.10	2.47 E-03	0.35	D
Evaporative	6.61 E-04	0.09	0.00	0.00	E
Crankcase	4.85 E-03	0.69	4.41 E-05	0.01	E
Refueling	1.08 E-03	0.15	0.00	0.00	E

<sup>a</sup> References 2,5-6,9-14. When necessary, an average brake-specific fuel consumption (BSFC) of 7,000 Btu/hp-hr was used to convert from lb/MMBtu to lb/hp-hr. To convert from lb/hp-hr to kg/kw-hr, multiply by 0.608. To convert from lb/MMBtu to ng/J, multiply by 430. SCC = Source Classification Code. TOC = total organic compounds.

<sup>b</sup> PM-10 = particulate matter less than or equal to 10 μm aerodynamic diameter. All particulate is assumed to be ≤ 1 μm in size.

<sup>c</sup> Assumes 99% conversion of carbon in fuel to CO<sub>2</sub> with 87 weight % carbon in diesel, 86 weight % carbon in gasoline, average BSFC of 7,000 Btu/hp-hr, diesel heating value of 19,300 Btu/lb, and gasoline heating value of 20,300 Btu/lb.

<sup>d</sup> Instead of 0.439 lb/hp-hr (power output) and 62.7 lb/mmBtu (fuel input), the correct emissions factors values are 6.96 E-03 lb/hp-hr (power output) and 0.99 lb/mmBtu (fuel input), respectively. This is an editorial correction. March 24, 2009

Table 3.3-2. SPECIATED ORGANIC COMPOUND EMISSION FACTORS FOR UNCONTROLLED DIESEL ENGINES<sup>a</sup>

EMISSION FACTOR RATING: E

Pollutant	Emission Factor (Fuel Input) (lb/MMBtu)
Benzene <sup>b</sup>	9.33 E-04
Toluene <sup>b</sup>	4.09 E-04
Xylenes <sup>b</sup>	2.85 E-04
Propylene	2.58 E-03
1,3-Butadiene <sup>b,c</sup>	<3.91 E-05
Formaldehyde <sup>b</sup>	1.18 E-03
Acetaldehyde <sup>b</sup>	7.67 E-04
Acrolein <sup>b</sup>	<9.25 E-05
Polycyclic aromatic hydrocarbons (PAH)	
Naphthalene <sup>b</sup>	8.48 E-05
Acenaphthylene	<5.06 E-06
Acenaphthene	<1.42 E-06
Fluorene	2.92 E-05
Phenanthrene	2.94 E-05
Anthracene	1.87 E-06
Fluoranthene	7.61 E-06
Pyrene	4.78 E-06
Benzo(a)anthracene	1.68 E-06
Chrysene	3.53 E-07
Benzo(b)fluoranthene	<9.91 E-08
Benzo(k)fluoranthene	<1.55 E-07
Benzo(a)pyrene	<1.88 E-07
Indeno(1,2,3-cd)pyrene	<3.75 E-07
Dibenz(a,h)anthracene	<5.83 E-07
Benzo(g,h,l)perylene	<4.89 E-07
TOTAL PAH	1.68 E-04

<sup>a</sup> Based on the uncontrolled levels of 2 diesel engines from References 6-7. Source Classification Codes 2-02-001-02, 2-03-001-01. To convert from lb/MMBtu to ng/J, multiply by 430.

<sup>b</sup> Hazardous air pollutant listed in the *Clean Air Act*.

<sup>c</sup> Based on data from 1 engine.

SOME USEFUL WEIGHTS AND MEASURES

Unit Of Measure	Equivalent	
grain	0.002	ounces
gram	0.04	ounces
ounce	28.35	grams
kilogram	2.21	pounds
pound	0.45	kilograms
pound (troy)	12	ounces
ton (short)	2000	pounds
ton (long)	2240	pounds
ton (metric)	2200	pounds
ton (shipping)	40	feet <sup>3</sup>
centimeter	0.39	inches
inch	2.54	centimeters
foot	30.48	centimeters
meter	1.09	yards
yard	0.91	meters
mile	1.61	kilometers
centimeter <sup>2</sup>	0.16	inches <sup>2</sup>
inch <sup>2</sup>	6.45	centimeters <sup>2</sup>
foot <sup>2</sup>	0.09	meters <sup>2</sup>
meter <sup>2</sup>	1.2	yards <sup>2</sup>
yard <sup>2</sup>	0.84	meters <sup>2</sup>
mile <sup>2</sup>	2.59	kilometers <sup>2</sup>
centimeter <sup>3</sup>	0.061	inches <sup>3</sup>
inch <sup>3</sup>	16.39	centimeters <sup>3</sup>
foot <sup>3</sup>	283.17	centimeters <sup>3</sup>
foot <sup>3</sup>	1728	inches <sup>3</sup>

SOME USEFUL WEIGHTS AND MEASURES (cont.)

Unit Of Measure	Equivalent	
meter <sup>3</sup>	1.31	yeads <sup>3</sup>
yard <sup>3</sup>	0.77	meters <sup>3</sup>
cord	128	feet <sup>3</sup>
cord	4	meters <sup>3</sup>
peck	8	quarts
bushel (dry)	4	pecks
bushel	2150.4	inches <sup>3</sup>
gallon (U. S.)	231	inches <sup>3</sup>
barrel	31.5	gallons
hogshead	2	barrels
township	36	miles <sup>2</sup>
hectare	2.5	acres

MISCELLANEOUS DATA

One cubic foot of anthracite coal weighs about 53 pounds.

One cubic foot of bituminous coal weighs from 47 to 50 pounds.

One ton of coal is equivalent to two cords of wood for steam purposes.

A gallon of water (U. S. Standard) weighs 8.33 pounds and contains 231 cubic inches.

There are 9 square feet of heating surface to each square foot of grate surface.

A cubic foot of water contains 7.5 gallons and 1728 cubic inches, and weighs 62.5 lbs.

Each nominal horsepower of a boiler requires 30 to 35 pounds of water per hour.

A horsepower is equivalent to raising 33,000 pounds one foot per minute, or 550 pounds one foot per second.

To find the pressure in pounds per square inch of a column of water, multiply the height of the column in feet by 0.434.

TYPICAL PARAMETERS OF VARIOUS FUELS<sup>a</sup>

Type Of Fuel	Heating Value		Sulfur % (by weight)	Ash % (by weight)
	kcal	Btu		
<b>Solid Fuels</b>				
Bituminous Coal	7,200/kg	13,000/lb	0.6-5.4	4-20
Anthracite Coal	6,810/kg	12,300/lb	0.5-1.0	7.0-16.0
Lignite (@ 35% moisture)	3,990/kg	7,200/lb	0.7	6.2
Wood (@ 40% moisture)	2,880/kg	5,200/lb	N	1-3
Bagasse (@ 50% moisture)	2,220/kg	4,000/lb	N	1-2
Bark (@ 50% moisture)	2,492/kg	4,500/lb	N	1-3 <sup>b</sup>
Coke, Byproduct	7,380/kg	13,300/lb	0.5-1.0	0.5-5.0
<b>Liquid Fuels</b>				
Residual Oil	9.98 x 10 <sup>6</sup> /m <sup>3</sup>	150,000/gal	0.5-4.0	0.05-0.1
Distillate Oil	9.30 x 10 <sup>6</sup> /m <sup>3</sup>	140,000/gal	0.2-1.0	N
Diesel	9.12 x 10 <sup>6</sup> /m <sup>3</sup>	137,000/gal	0.4	N
Gasoline	8.62 x 10 <sup>6</sup> /m <sup>3</sup>	130,000/gal	0.03-0.04	N
Kerosene	8.32 x 10 <sup>6</sup> /m <sup>3</sup>	135,000/gal	0.02-0.05	N
Liquid Petroleum Gas	6.25 x 10 <sup>6</sup> /m <sup>3</sup>	94,000/gal	N	N
<b>Gaseous Fuels</b>				
Natural Gas	9,341/m <sup>3</sup>	1,050/SCF	N	N
Coke Oven Gas	5,249/m <sup>3</sup>	590/SCF	0.5-2.0	N
Blast Furnace Gas	890/m <sup>3</sup>	100/SCF	N	N

<sup>a</sup> N = negligible.

<sup>b</sup> Ash content may be considerably higher when sand, dirt, etc., are present.

### Nonroad Compression-Ignition Engines: Exhaust Emission Standards

	Rated Power (kW)	Tier	Model Year	NMHC (g/kW-hr)	NMHC + NOx (g/kW-hr)	NOx (g/kW-hr)	PM (g/kW-hr)	CO (g/kW-hr)	Smoke <sup>a</sup> (Percentage)	Useful Life (hours /years) <sup>b</sup>	Warranty Period (hours /years) <sup>b</sup>	
Federal	kW < 8	1	2000-2004	-	10.5	-	1.0	8.0	20/15/50	3,000/5	1,500/2	
		2	2005-2007	-	7.5	-	0.80	8.0				
		4	2008+	-	7.5	-	0.40 <sup>c</sup>	8.0				
	8 ≤ kW < 19	1	2000-2004	-	9.5	-	0.80	6.6		3,000/5	1,500/2	
		2	2005-2007	-	7.5	-	0.80	6.6				
		4	2008+	-	7.5	-	0.40	6.6				
	19 ≤ kW < 37	1	1999-2003	-	9.5	-	0.80	5.5		5,000/7 <sup>d</sup>	3,000/5 <sup>e</sup>	
		2	2004-2007	-	7.5	-	0.60	5.5				
		4	2008-2012	-	7.5	-	0.30	5.5				
			2013+	-	4.7	-	0.03	5.5				
	37 ≤ kW < 56	1	1998-2003	-	-	9.2	-	-		20/15/50	8,000/10	3,000/5
		2	2004-2007	-	7.5	-	0.40	5.0				
		3 <sup>f</sup>	2008-2011	-	4.7	-	0.40	5.0				
		4 (Option 1) <sup>g</sup>	2008-2012	-	4.7	-	0.30	5.0				
		4 (Option 2) <sup>g</sup>	2012	-	4.7	-	0.03	5.0				
		4	2013+	-	4.7	-	0.03	5.0				
	56 ≤ kW < 75	1	1998-2003	-	-	9.2	-	-		20/15/50	8,000/10	3,000/5
		2	2004-2007	-	7.5	-	0.40	5.0				
		3	2008-2011	-	4.7	-	0.40	5.0				
		4	2012-2013 <sup>h</sup>	-	4.7	-	0.02	5.0				
			2014+ <sup>i</sup>	0.19	-	0.40	0.02	5.0				
75 ≤ kW < 130	1	1997-2002	-	-	9.2	-	-	20/15/50	8,000/10	3,000/5		
	2	2003-2006	-	6.6	-	0.30	5.0					
	3	2007-2011	-	4.0	-	0.30	5.0					
	4	2012-2013 <sup>h</sup>	-	4.0	-	0.02	5.0					
		2014+	0.19	-	0.40	0.02	5.0					

Continued

**Notes:**

- For Tier 1, 2, and 3 standards, exhaust emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), hydrocarbons (HC), and non-methane hydrocarbons (NMHC) are measured using the procedures in 40 Code of Federal Regulations (CFR) Part 89 Subpart E. For Tier 1, 2, and 3 standards, particulate matter (PM) exhaust emissions are measured using the California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines.
- For Tier 4 standards, engines are tested for transient and steady-state exhaust emissions using the procedures in 40 CFR Part 1039 Subpart F. Transient standards do not apply to engines below 37 kilowatts (kW) before the 2013 model year, constant-speed engines, engines certified to Option 1, and engines above 560 kW.
- Tier 2 and later model naturally aspirated nonroad engines shall not discharge crankcase emissions into the atmosphere unless these emissions are permanently routed into the exhaust. This prohibition does not apply to engines using turbochargers, pumps, blowers, or superchargers.
- In lieu of the Tier 1, 2, and 3 standards for NO<sub>x</sub>, NMHC + NO<sub>x</sub>, and PM, manufacturers may elect to participate in the averaging, banking, and trading (ABT) program described in 40 CFR Part 89 Subpart C.
- a** Smoke emissions may not exceed 20 percent during the acceleration mode, 15 percent during the lugging mode, and 50 percent during the peaks in either mode. Smoke emission standards do not apply to single-cylinder engines, constant-speed engines, or engines certified to a PM emission standard of 0.07 grams per kilowatt-hour (g/kW-hr) or lower. Smoke emissions are measured using procedures in 40 CFR Part 86 Subpart I.
- b** Useful life and warranty period are expressed hours and years, whichever comes first.
- c** Hand-startable air-cooled direct injection engines may optionally meet a PM standard of 0.60 g/kW-hr. These engines may optionally meet Tier 2 standards through the 2009 model years. In 2010 these engines are required to meet a PM standard of 0.60 g/kW-hr.
- d** Useful life for constant speed engines with rated speed 3,000 revolutions per minute (rpm) or higher is 5 years or 3,000 hours, whichever comes first.
- e** Warranty period for constant speed engines with rated speed 3,000 rpm or higher is 2 years or 1,500 hours, whichever comes first.
- f** These Tier 3 standards apply only to manufacturers selecting Tier 4 Option 2. Manufacturers selecting Tier 4 Option 1 will be meeting those standards in lieu of Tier 3 standards.
- g** A manufacturer may certify all their engines to either Option 1 or Option 2 sets of standards starting in the indicated model year. Manufacturers selecting Option 2 must meet Tier 3 standards in the 2008-2011 model years.
- h** These standards are phase-out standards. Not more than 50 percent of a manufacturer's engine production is allowed to meet these standards in each model year of the phase out period. Engines not meeting these standards must meet the final Tier 4 standards.
- i** These standards are phased in during the indicated years. At least 50 percent of a manufacturer's engine production must meet these standards during each year of the phase in. Engines not meeting these standards must meet the applicable phase-out standards.
- j** For Tier 1 engines the standard is for total hydrocarbons.
- k** The NO<sub>x</sub> standard for generator sets is 0.67 g/kW-hr.
- l** The PM standard for generator sets is 0.03 g/kW-hr.

**Citations: Code of Federal Regulations (CFR) citations:**

- 40 CFR 89.112 = Exhaust emission standards
- 40 CFR 1039.101 = Exhaust emission standards for after 2014 model year
- 40 CFR 1039.102 = Exhaust emission standards for model year 2014 and earlier
- 40 CFR 1039 Subpart F = Exhaust emissions transient and steady state test procedures
- 40 CFR 86 Subpart I = Smoke emission test procedures
- 40 CFR 1065 = Test equipment and emissions measurement procedures

# Policy: CARB Emission Factors for CI Diesel Engines – Percent HC in Relation to NMHC + NOx

---

**Policy** When the non-methane hydrocarbon (NMHC) and nitrogen oxide (NOx) emission factor is combined, assume a breakdown of 5% and 95%, respectively.

---

**Effective date** June 28, 2004

---

**Definitions** The following is a list of associated definitions.

- **CI Engine** – Compression Ignition Engine is an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle.
  - **HC** – Organic compound consistently entirely of hydrogen and carbon.
  - **NMHC** – Non-Methane Hydrocarbon is the sum of all hydrocarbon air pollutants except methane.
  - **NOx** – Nitrogen Oxides are compounds of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and other oxides of nitrogen, which are typically created during combustion processes.
- 

**Contact** Randy Frazier, x4672

---

**Document Control**

Version	Revised By	Description	Date
1.1	HL	New Policy: CARB Emission Factors – Percent HC in Relation to NMHC + NOx	06/28/04
1.2	MCL	Mapping of Policy	3/13/08

---

**Approval**

Name & Title	Signature	Date
Brian Bateman, Director of Engineering	<b>Signed by Brian Bateman</b>	2/28/2008

---

# Conversion Factors for Hydrocarbon Emission Components

# Conversion Factors for Hydrocarbon Emission Components

**NR-002c**

Assessment and Standards Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

## *NOTICE*

*This technical report does not necessarily represent final EPA decisions or positions.  
It is intended to present technical analysis of issues using data that are currently available.*

*The purpose in the release of such reports is to facilitate the exchange of  
technical information and to inform the public of technical developments which  
may form the basis for a final EPA decision, position, or regulatory action.*

## **Purpose**

The purpose of this memorandum is to document the conversion factors for reporting hydrocarbon emissions in different forms. The general forms are total hydrocarbons (THC), total organic gas (TOG), nonmethane hydrocarbons (NMHC), nonmethane organic gas (NMOG), and volatile organic compounds (VOC), all defined in the introduction below. For reporting hydrocarbon emissions from nonroad equipment, it is helpful to provide an accepted means to estimate the hydrocarbons in the different forms. This is not a substitute for full speciation of hydrocarbon emissions.

## **Introduction**

Hydrocarbon emissions can be reported in a variety of styles depending on the end use of the emission estimates and the measurement technique used in the underlying data. Not all emissions are measured for all engines, so a conversion from the most common measurement type to others is needed to supply an estimate in terms required by the user.

Most hydrocarbon emissions data from mobile sources is measured as total hydrocarbon (THC). THC is the measured hydrocarbon emissions using a Flame Ionization Detector (FID) calibrated with propane. The FID is assumed to respond to all hydrocarbons identically as it responds to propane in determining the concentration of carbon atoms in a gas sample. Most hydrocarbons respond nearly identically as propane with notable exceptions being oxygenated hydrocarbons such as alcohols and aldehydes commonly found in engine exhaust.

Because alcohols and especially aldehydes are chemically reactive and therefore ozone-forming hydrocarbons, the California Air Resources Board defined a measurement that adds the THC and the oxygenated components into a new measurement called total organic gas (TOG). [1] The oxygenated components are measured by collecting aldehydes on dinitro-phenylhydrazine impregnated filter traps and alcohols in chilled water impingers. The aldehydes and alcohols are extracted and measured using chromatography to determine emission rates. Each mole of aldehydes and alcohols is added by weight as formaldehyde and methanol.

Methane is an organic gas that is orders of magnitude less reactive than other hydrocarbons, so it is often excluded from emission estimations. The methane is measured by chromatographically separating the methane from the THC and analyzing the concentrations using a FID calibrated specifically for methane. The methane emissions are subtracted from the THC and TOG emission estimations to produce a nonmethane hydrocarbon (NMHC) and a nonmethane organic gas (NMOG) emission estimate. Some newer instruments can measure the NMHC directly however leading to lower uncertainty.

Some hydrocarbons are less ozone-forming than other hydrocarbons, so EPA has officially excluded them from the definition of regulated hydrocarbons called volatile organic compounds (VOC). This definition excludes methane, ethane, acetone, and compounds not commonly found in large quantities in engine exhaust like chlorohydrocarbons from

consideration as VOC. For this work, the definition of VOC is the result of subtracting methane and ethane from the TOG emission estimates. Although acetone is not subtracted, it is present in smaller quantities compared to methane and ethane, and will have a negligible effect on the results.

## **Conversion Factors**

### **Exhaust Emissions**

Because all studies to date have measured THC, all other hydrocarbon types will be given as a proportion of THC. The ratios given in the table below were derived from those studies that measured methane, ethane, and aldehydes. Alcohols are only found if the fuel contains alcohols, so they would have been considered if data were available.

The hydrocarbon speciation data from nonroad engines is sparse. The 2-stroke engine conversions are derived from the study of only one moped engine while the 4-stroke engine results are an averaged result of 11 lawnmower engines studied. The diesel results are the average of two late 70s and early 80s vintage on-highway truck engines. The factors for compressed natural gas (CNG) and liquid petroleum gas (LPG) engines were estimated from data collected using on-highway light-duty vehicles equipped with catalysts. Nonroad equipment does not use this technology but no emissions data from nonroad CNG and LPG engines was available.

Table for Conversion Factors for Hydrocarbon Exhaust Emission Results

Engine Type	TOG/THC	NMOG/THC	NMHC/THC	VOC/THC
2-Stroke Gasoline [2]	1.044	1.035	0.991	1.034
4-Stroke Gasoline [2, 3]	1.043	0.943	0.900	0.933
Diesel [4]	1.070	1.054	0.984	1.053
LPG [5]	1.099	1.019	0.920	0.995
CNG [5]	1.002	0.049	0.048	0.004

### Crankcase and Evaporative Emissions

For non-tailpipe emissions (i.e., crankcase and evaporative emissions) with fuels other than compressed natural gas, we will assume:

$$\text{THC} = \text{VOC} = \text{NMHC} = \text{TOG} = \text{NMOG}$$

Hence, all ratios will be 1.000.

For engines using natural gas fuels (CNG), we will assume that the relationship of the non-tailpipe HC emissions (i.e., crankcase and evaporative emissions) will be:

$$\begin{aligned} \text{THC} &= \text{TOG} \\ &\text{and} \\ \text{VOC} &= \text{NMHC} = \text{NMOG} = 0 \end{aligned}$$

Hence, the ratio of TOG to THC will be 1.000 while the other ratios will be 0.0.

### Conclusions

The conversion factor is applied at the end of the model calculation of total hydrocarbons, known as THC. Emission factors are generated most typically as THC, so the conversion to other hydrocarbon forms is provided for the user.

Newer data are becoming available and should be used to eventually augment and verify the data currently used in this report. Changes in engine technology needed to meet nonroad engine regulations that might affect the speciation profiles should also be considered, given

available data. Acetone should also be explicitly excluded as a VOC when the newer data are analyzed.

## **References**

- [1] Air Resources Board (1996), "California Non-methane Organic Gas Test Procedure," California Environmental Protection Agency, Last Amended June 24, 1996.
- [2] Hare C.T. and White, J.J. (1991), "Toward the Environmentally-Friendly Small Engine, Lubricant, and Emission Measurement Issues", SAE-911222.
- [3] Gabele, P., (1997), "Exhaust emissions from four-stroke lawn mower engines," Journal of the Air & Waste Management Association, pp 642-649, vol.47, Sept., 1997.
- [4] Springer, Karl J. (1979), "Characterization of Sulfates, Odor, Smoke, POM and Particulates from Light and Heavy-Duty Engines -- Part IX," Ann Arbor, Michigan: U.S. Environmental Protection Agency, Office of Mobile Sources. Publication no. EPA-460/3-79-007.
- [5] ARB, (1991), "Proposed Reactivity Adjustment Factors for Transitional Low-Emission Vehicles," Technical Support Document, Sept., 27, 1991.

**GENERATOR SPECIFICATIONS  
DATA SHEETS**



## Kirtland Building -737

**Prepared for:**

Kirkland Building -733-737  
501 GENERAL SOMERVELL ST SE  
ALBUQUERQUE, New Mexico 87123-3290  
United States

**Cummins Salesperson:**

Shawn Smith HE861@cummins.com 505-228-7889

**Cummins Project Manager:**

Mirella Velez mirella.velez@cummins.com (623) 986-0470

**PLEASE COMPLETE THIS SECTION OR PROVIDE SIGNOFF TO PROCEED**

- Revise with corrections provided**
- Approved and released for production**

**Date:**

**By (name and company):**

**Requested delivery date:**

**Requested delivery address:**

**Contact person and phone # for deliveries:**

Salesforce O# P-49703

BMS # 460379

Customer PO# 2510168-01

4-9-2025

# *Section 2 – Generator Spec Sheets*



# Diesel generator set

10 kW - 15 kW

EPA emissions  
stationary Standby



## Description

Cummins® generator sets are fully integrated power generation systems providing optimum performance, reliability and versatility for stationary Standby applications.

## Features

**Kubota heavy-duty engine** - Rugged 4-cycle, liquid-cooled, industrial diesel engine delivers reliable power, low emissions and fast response to load changes.

**Alternator** - Several alternator sizes offer selectable motor starting capability with low reactance 2/3 pitch windings, low waveform distortion with non-linear loads and fault clearing short-circuit capability.

**Control system** - The PowerCommand® 1.1 electronic control is standard equipment and provides total generator set system integration including automatic remote starting/stopping, precise frequency and voltage regulation, alarm and status message display, output metering, auto-shutdown at fault detection and NFPA 110 Level 1 compliance.

**Cooling system** - Standard cooling package provides reliable running at up to 50 °C (122 °F) ambient temperature.

**Enclosures** - The aesthetically appealing enclosure incorporates special designs that deliver one of the quietest generators of its kind. Aluminium material plus durable powder coat paint provides the best anti-corrosion performance. The generator set enclosure has been evaluated to withstand 180 MPH wind loads in accordance with ASCE7-10. The intelligent design has removable panels and service doors to provide easy access for service and maintenance.

**Fuel tanks** - Two dual wall sub-base fuel tank series are offered as optional features, providing economical and flexible solutions to meet extensive code requirements on diesel fuel tanks.

**NFPA** - The generator set accepts full rated load in a single step in accordance with NFPA 110 for Level 1 systems.

**Warranty and service** - Backed by a comprehensive warranty and worldwide distributor network.

Model	Standby rating 60 Hz		Prime rating 60 Hz		Data sheets 60 Hz
	kW	kVA	kW	kVA	
C10 D6	10.0	12.5	9.1	11.4	NAD-5857
C15 D6	15.0	18.8	13.6	17.0	NAD-5858

## Generator set specifications

Governor regulation class	ISO8528 Part 1 Class G3
Voltage regulation, no load to full load	± 1.0%
Random voltage variation	± 1.0%
Frequency regulation	Isochronous
Random frequency variation	± 0.25%
Radio frequency emissions compliance	FCC code Title 47 Part 15 Class B

## Engine specifications

Bore	87.0 mm (3.43 in.)
Stroke	92.4 mm (3.64 in.)
Displacement	1.65 litres (100.5 in <sup>3</sup> )
Configuration	Cast iron, in-line, 3 cylinder
Battery capacity	550 amps at ambient temperature of 0 °F to 32 °F (-18 °C to 0 °C)
Battery charging alternator	40 amps
Starting voltage	12 volt, negative ground
Fuel system	Indirect injection: low or ultra-low sulfur, number 2 diesel fuel
Fuel filter	Single element, spin-on fuel filter with water separator
Air cleaner type	Dry replaceable element
Lube oil filter type(s)	Spin-on, full flow paper filter (cartridge type)
Standard cooling system	50 °C (122 °F) ambient cooling system

## Alternator specifications

Design	Brushless, 4 pole, drip proof, revolving field
Stator	2/3 pitch
Rotor	Direct coupled, flexible disc
Insulation system	Class H per NEMA MG1-1.65
Standard temperature rise	120 °C (248 °F) Standby
Exciter type	Torque match (shunt) with EBS as option
Alternator cooling	Direct drive centrifugal blower
AC waveform Total Harmonic Distortion (THDV)	< 5% no load to full linear load, < 3% for any single harmonic
Telephone Influence Factor (TIF)	< 50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	0.03

## Available voltages

Single phase	3 phase
• 120/240	• 120/208 • 120/240 delta • 277/480 • 347/600

**Note:** Consult factory for other voltages.

## Generator set options

### Fuel system

- Basic fuel tanks
- Regional fuel tanks

### Engine

- Engine air cleaner – heavy duty
- Shut down – low oil pressure
- Extension – oil drain

### Alternator

- 120 °C (248 °F) temperature rise alternator
- 105 °C (221 °F) temperature rise alternator
- Excitation Boost System (EBS)
- Alternator heater, 120 V

### Control

- AC output analog meters (bargraph)
- Stop switch – emergency
- Auxiliary output relays (2)
- Auxiliary configurable signal inputs (8) and relay outputs (8)

### Electrical

- Single circuit breaker
- Dual circuit breakers
- 80% rated circuit breakers
- 100% rated circuit breakers

### Enclosure

- Aluminium enclosure sound level 1 or level 2, with muffler installed, sandstone or green color
- Open set

### Cooling system

- Shutdown – low coolant level
- Warning – low coolant level
- Extension – coolant drain
- Cold weather options:
  - <4 °C (40 °F) – cold weather
  - <-17 °C (0 °F) – extreme cold weather

### Exhaust system

- Exhaust connector NPT
- Open set with muffler mounted

### Generator set application

- Battery rack, larger battery
- Radiator outlet duct adapter

## Generator set options (continued)

### Warranty

- Base warranty – 2 year, 1000 hour, Standby
- Standby, 3 year, 1500 hour, parts
- Standby, 5 year, 2500 hour, parts
- Standby, 3 year, 1500 hour, parts and labor
- Standby, 5 year, 2500 hour, parts and labor
- Standby, 3 year, 1500 hour, parts, labor and travel
- Standby, 5 year, 2500 hour, parts, labor and travel

### Generator set accessories

- Extreme cold weather kit
- Battery rack, larger battery
- Battery heater kit
- HMI211RS in-home display, including pre-configured 12" harness
- HMI211 remote display, including pre-configured 12" harness
- HMI220 remote display
- Auxiliary output relays (2)
- Auxiliary configurable signal inputs (8) and relay outputs (8)
- Annunciator – RS485
- Remote monitoring device – PowerCommand 500
- Battery charger – stand-alone, 12 V
- Circuit breakers
- Enclosure Sound Level 1 to Sound Level 2 upgrade kit
- Enclosure paint touch up kit
- Mufflers – industrial, residential or critical
- Alternator Excitation Boost System (EBS)
- Alternator heater
- Maintenance and service kit
- Engine lift kit
- Various fuel tanks and accessories

## Control system PowerCommand 1.1



**PowerCommand control** is an integrated generator set control system providing voltage regulation, engine protection, operator interface and isochronous governing (optional). Major features include:

- Battery monitoring and testing features and smart starting control system.
- Standard PCCNet interface to devices such as remote annunciator for NFPA 110 applications.
- Control boards potted for environmental protection.
- Control suitable for operation in ambient temperatures from -40 °C to +70 °C (-40 °F to +158 °F) and altitudes to 5000 meters (13,000 feet).
- Prototype tested; UL, CSA, and CE compliant.
- InPower™ PC-based service tool available for detailed diagnostics.

### Operator/display panel

- Manual off switch
- Alpha-numeric display with pushbutton access for viewing engine and alternator data and providing setup, controls and adjustments (English or international symbols)
- LED lamps indicating generator set running, not in auto, common warning, common shutdown, manual run mode and remote start
- Suitable for operation in ambient temperatures from -40 °C to +70 °C
- Bargraph display (optional)

### AC protection

- Over current warning and shutdown
- Over and under voltage shutdown
- Over and under frequency shutdown
- Over excitation (loss of sensing) fault
- Field overload

### Engine protection

- Overspeed shutdown
- Low oil pressure warning and shutdown
- High coolant temperature warning and shutdown
- Low coolant level warning or shutdown
- Low coolant temperature warning
- High, low and weak battery voltage warning
- Fail to start (overcrank) shutdown
- Fail to crank shutdown
- Redundant start disconnect
- Cranking lockout
- Sensor failure indication
- Low fuel level warning or shutdown

### Alternator data

- Line-to-Line and Line-to-Neutral AC volts
- 3-phase AC current
- Frequency
- Total kVa

### Engine data

- DC voltage
- Lube oil pressure
- Coolant temperature
- Engine speed

#### Other data

- Generator set model data
- Start attempts, starts, running hours
- Fault history
- RS485 Modbus® interface
- Data logging and fault simulation (requires InPower service tool)

#### Digital governing (optional)

- Integrated digital electronic isochronous governor
- Temperature dynamic governing

#### Digital voltage regulation

- Integrated digital electronic voltage regulator
- 2-phase Line-to-Line sensing
- Configurable torque matching

#### Control functions

- Time delay start and cooldown
- Cycle cranking
- PCCNet interface
- (2) Configurable inputs
- (2) Configurable outputs
- Remote emergency stop
- Automatic Transfer Switch (ATS) control
- Generator set exercise, field adjustable

#### Options

- Auxiliary output relays (2)
- Remote annunciator with (3) configurable inputs and (4) configurable outputs
- PowerCommand 500/550 for remote monitoring and alarm notification (accessory)
- Auxiliary, configurable signal inputs (8) and configurable relay outputs (8)
- Digital governing
- AC output analog meters (bargraph)
  - Color-coded graphical display of:
    - 3-phase AC voltage
    - 3-phase current
    - Frequency
    - kVa
- Remote operator panel

## Ratings definitions

#### Emergency Standby Power (ESP):

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

#### Limited-Time Running Power (LTP):

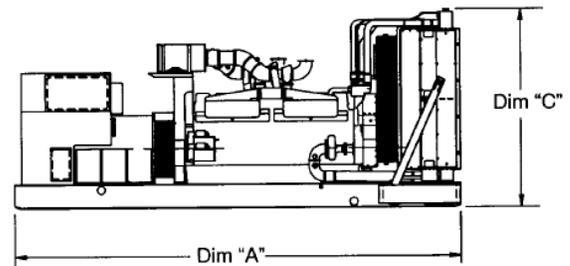
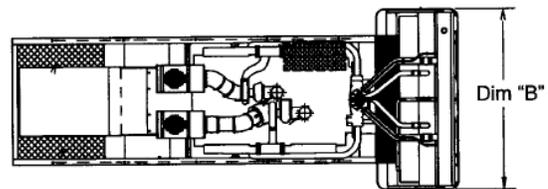
Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.

#### Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

#### Base Load (Continuous) Power (COP):

Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.



This outline drawing is for reference only. See respective model data sheet for specific model outline drawing number.

**Do not use for installation design**

Model	Dim "A" mm (in.)	Dim "B" mm (in.)	Dim "C" mm (in.)	Set weight* dry kg (lbs)	Set weight* wet kg (lbs)
<b>Open set</b>					
<b>C10 D6</b>	1670 (65.74)	864 (34)	1121 (44.13)	369 (816)	383 (847)
<b>C15 D6</b>	1670 (65.74)	864 (34)	1121 (44.13)	415 (918)	429 (949)
<b>C10 D6</b>	1830 (72)	864 (34)	1156 (45.5)	467 (1033)	481 (1064)
<b>C15 D6</b>	1830 (72)	864 (34)	1156 (45.5)	467 (1033)	481 (1064)
<b>Sound attenuated enclosure Level 2</b>					
<b>C10 D6</b>	2075 (81.69)	864 (34)	1156 (45.5)	426 (942)	440 (973)
<b>C15 D6</b>	2075 (81.69)	864 (34)	1156 (45.5)	472 (1044)	486 (1075)

Refer to drawings for specific weights and dimensions

\* Weights represent a set with standard features. See outline drawings for weights of other configurations.

### Codes and standards

Codes or standards compliance may not be available with all model configurations – consult factory for availability.

	This generator set is designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002.		The generator set is available Listed to UL 2200, Stationary Engine Generator Assemblies.
	The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design. Cummins products bearing the PTS symbol meet the prototype test requirements of NFPA 110 for Level 1 systems.	<b>U.S. EPA</b>	Engine certified to U.S. EPA SI Stationary Emission Regulation 40 CFR, Part 60.
	All low voltage models are CSA certified to product class 4215-01.	<b>International Building Code</b>	The generator set is certified for seismic application in accordance with International Building Code (IBC) 2012.

**Warning:** Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

For more information contact your local Cummins distributor or visit [power.cummins.com](http://power.cummins.com)

**Our energy working for you.™**



## Generator set data sheet

**Model:** C10 D6  
**Frequency:** 60 Hz  
**Fuel type:** Diesel  
**KW rating:** 10 standby  
 9.1 prime  
**Emissions level:** EPA Emission Stationary Standby

<b>Exhaust emission data sheet:</b>	<b>EDS-1179</b>
<b>Exhaust emission compliance sheet:</b>	<b>EPA-1248</b>
<b>Sound performance data sheet:</b>	<b>MSP-1177</b>
<b>Cooling performance data sheet:</b>	<b>MCP-259</b>
<b>Prototype test summary data sheet:</b>	<b>PTS-321</b>

<b>Fuel consumption</b>	<b>Standby</b>				<b>Prime</b>			
	<b>kW (kVA)</b>				<b>kW (kVA)</b>			
<b>Ratings</b>	10 (12.5)				9.1 (11.4)			
<b>Load</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>	<b>1/4</b>	<b>1/2</b>	<b>3/4</b>	<b>Full</b>
<b>US gph</b>	0.4	0.63	0.85	1.12	0.36	0.57	0.77	1.02
<b>L/hr</b>	1.51	2.38	3.22	4.24	1.36	2.16	2.91	3.86

<b>Engine</b>	<b>Standby rating</b>	<b>Prime rating</b>
Engine manufacturer	Kubota	
Engine model	D1703M	
Configuration	Cast iron, in-line, 3 cylinder	
Aspiration	Natural	
Gross engine power output, kWm (bhp)	18 (24.3)	16 (22.1)
BMEP at set rated load, kPa (psi)	619.14 (89.8)	561.92 (81.5)
Bore, mm (in)	87 (3.43)	
Stroke, mm (in)	92.4 (3.64)	
Rated speed, rpm	1800	
Piston speed, m/s (ft/min)	5.5 (1092)	
Compression ratio	22:1	
Lube oil capacity, L (qt)	7.0 (7.4)	
Overspeed limit, rpm	2250	

### Fuel flow

Maximum fuel flow, L/hr (US gph)	13.26 (3.5)
Maximum fuel inlet restriction with clean filter, mm Hg (in Hg)	50.8 (2)
Maximum return restriction, mm Hg (in Hg)	152 (6)

<b>Air</b>	<b>Standby rating</b>	<b>Prime rating</b>
Combustion air, m <sup>3</sup> /min (scfm)	1.302 (46)	TBD
Maximum air cleaner restriction with clean filter, kPa (in H <sub>2</sub> O)	1.0 (4.0)	
Alternator cooling air, m <sup>3</sup> /min (cfm)	7.10 (251)	

## Exhaust

Exhaust flow at set rated load, m <sup>3</sup> /min (cfm)	2.8 (99)	2.69 (95)
Exhaust temperature, °C (°F)	340 (644)	307.2 (585)
Maximum allowable exhaust back pressure, kPa (in H <sub>2</sub> O)	10.47 (42)	10.47 (42)
Actual exhaust back pressure with CPG fitted muffler, kPa (in H <sub>2</sub> O)	2.99 (12)	2.74 (11)

## Standard set-mounted radiator cooling

Ambient design, °C (°F)	50 (122)	
Fan load, kW <sub>m</sub> (HP)	0.47 (0.64)	
Coolant capacity (with radiator), L (US Gal)	9.0 (2.4)	
Cooling system air flow, m <sup>3</sup> /min (scfm)	39.2 (1385)	
Total heat rejection, MJ/min (Btu/min)	0.77 (733.3)	0.735 (696.7)
Maximum cooling air flow static restriction, kPa (in H <sub>2</sub> O)	0.12 (0.5)	

## Weights<sup>2</sup>

Unit dry weight kgs (lbs)  
Unit wet weight kgs (lbs)

Refer to drawings for specific weights and dimensions

### Notes:

<sup>1</sup> For non-standard remote installations contact your local Cummins Power Generation representative.

<sup>2</sup> Weights represent a set with standard features. See outline drawing for weights of other configurations.

## Derating factors

<b>Standby</b>	Engine power available up to 2500 m (8200 ft) at ambient temperature up to 40 °C (104 °F). Above these conditions, derate at 3% per 300 m (985 ft) and 3.5% per 10 °C (18 °F).
<b>Prime</b>	Engine power available up to 2500 m (8200 ft) at ambient temperature up to 40 °C (104 °F). Above these conditions, derate at 3% per 300 m (985 ft) and 3.5% per 10 °C (18 °F).

## Ratings definitions

<b>Emergency standby power (ESP):</b>	<b>Limited-time running power (LTP):</b>	<b>Prime power (PRP):</b>	<b>Base load (continuous) power (COP):</b>
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

PDA058T1159, G.2, Released, Product Marketing Specifications, Page 1 of 1, System: cmplm,cummins.com Downloaded: 04-01-2025 03:40UTC  
 SIID: nVh6H\_G2FQR1Ndf-TVuKJ2PTFTZ3-iZa7hniWxRX3f91sMqPgShrRsoCCU59PQ\_XGY6suXVrros0W6AUD9xw==



# 2025 EPA Tier 4i Exhaust Emission Compliance Statement C10 D6 Stationary Emergency 60 Hz Diesel Generator Set

Cummins Data Classification: CUMMINS INTERNAL USE ONLY

**Compliance Information:**

The engine used in this generator set complies with Tier 4 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII.

**Engine Manufacturer:** Kubota Corporation  
 EPA Certificate Number: SKBXL02.2FCC-032  
 Effective Date: 09/23/2024  
 Date Issued: 09/23/2024  
 EPA Engine Family (Cummins Emissions Family): SKBXL02.2FCC

**Engine Information:**

**Model:** D1703M      Bore: 3.43 in. (87 mm)  
**Engine Nameplate HP:** 27      Stroke: 3.64 in. (92 mm)  
 Type: 4 Cycle, In-line, 3 Cylinder Diesel      Displacement: 100.5 cu. in. (1.7 liters)  
 Aspiration: Naturally Aspirated      Compression ratio: 22:1  
 Emission Control Device:      Exhaust stack diameter: 2 in. (51 mm)

**Diesel Fuel Emission Limits**

**D2 Cycle Exhaust Emissions**

	Grams per BHP-hr			Grams per kWm-hr		
	<u>NO<sub>x</sub> + NMHC</u>	<u>CO</u>	<u>PM</u>	<u>NO<sub>x</sub> + NMHC</u>	<u>CO</u>	<u>PM</u>
EPA Emissions Limit	5.6	4.1	0.22	7.5	5.5	0.30

**Test methods:** EPA emissions recorded per 40 CFR Part 60, 89, 1039, 1065 and weighted at load points prescribed in the regulations for constant speed engines.

**Diesel fuel specifications:** 40-50 Cetane number, Reference: ASTM D975 No. 2-D, 7-15 ppm Sulphur

**Reference conditions:** Air Inlet Temperature: 25 °C (77 °F), Fuel Inlet Temperature: 40 °C (104 °F). Barometric Pressure: 100 kPa (29.53 in Hg), Humidity: 10.7 g/kg (75 grains H2O/lb) of dry air; required for NOx correction, Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to a maximum allowable limit..

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.



### Sound pressure level @ 7 meters, dB(A)

See notes 1-6 listed below

Configuration		Position (note 1)								8 position average
		1	2	3	4	5	6	7	8	
Standard – unhoused	Infinite exhaust	71.1	72.7	72.1	72.9	73.6	72.9	71.8	70.8	72.3
F217-2 – sound attenuated level 2	Mounted	65.0	65.2	66.1	61.1	63.3	62.8	67.2	65.3	64.9
F231-2 – sound attenuated level 1	Mounted	70.7	67.4	67.0	62.6	64.0	64.0	67.9	66.7	67.0

### Sound power level, dB(A)

See notes 2-4, 7, 8 listed below

Configuration		Octave band center frequency (Hz)									Overall sound power level
		31.5	63	125	250	500	1000	2000	4000	8000	
Standard – unhoused	Infinite exhaust	64.6	72.5	84.0	89.5	92.3	89.4	90.1	86.6	83.1	97.4
F217-2 – sound attenuated level 2	Mounted	68.9	77.3	81.3	87.0	82.5	79.1	77.4	76.4	72.8	90.3
F231-2 – sound attenuated level 1	Mounted	68.9	77.4	81.6	87.1	83.8	79.7	79.7	78.7	74.9	91.0

### Exhaust sound power level, dB(A)

See notes 2, 9 listed below

Open exhaust (no muffler) @ rated load	Octave band center frequency (Hz)									Overall sound power level
	31.5	63	125	250	500	1000	2000	4000	8000	
		28.6	78.6	97.6	99.3	97.5	101.7	105.6	103.8	93.4

Note:

1. Position 1 faces the generator front per ISO 8528-10. The positions proceed around the generator set in a counter-clockwise direction in 45° increments. All position are at 7 m (23 ft) from surface of the generator set and 1.2 m (48 in.) from floor level.
2. Sound levels are subject to instrumentation, measurement, installation and manufacturing variability.
3. Data based on full rated load.
4. Sound data with generator sets with infinite exhaust do not include exhaust noise.
5. Sound pressure levels are measured per ANSI S1.13 and ANSI S12.18, as applicable.
6. Reference sound pressure is 20 µPa.
7. Sound power levels per ISO 3744 and ISO 8528-10, as applicable.
8. Reference power = 1 pw (10<sup>-12</sup>W).
9. Exhaust sound power levels are per ISO 6798, as applicable.



# Alternator data sheet

Frame size: CA115-D14

<b>Characteristics</b>						
<b>No of bearings:</b>	1					
<b>Weights:</b>	<b>Stator assembly:</b>	137 lb	62.1 kg			
	<b>Rotor assembly:</b>	62.2 lb	28.2 kg			
	<b>Complete assembly:</b>	199 lb	90 kg			
<b>Maximum speed:</b>	2250 rpm					
<b>Insulation system:</b>	Class H throughout					
	<b>60 Hz Voltage</b> (winding no)					
	<u>240</u> (06)	<u>208</u> (311)	<u>480</u> (41)	<u>600</u> (17)	<u>240</u> (311)	
Excitation current: Full load	1.88	2.09	2.11	2.14	2.09	
Excitation current: No load	0.48	0.56	0.59	0.61	0.56	
<b>3 Ø Ratings</b> (0.8 power factor)		<u>208</u> (311)	<u>480</u> (41)	<u>600</u> (17)	<u>240</u> (311)	
(Based on specific temperature rise at 40° C ambient temperature)						
120° C Rise peak Standby ratings	kW	10	10	10	10	
	kVA	12.5	12.5	12.5	12.5	
105° C Rise peak Standby ratings	kW	9.2	9.2	9.2	9.2	
	kVA	11.5	11.5	11.5	11.5	
<b>1 Ø Ratings</b> (1.0 power factor)		<u>240</u> (06)				
(Based on specific temperature rise at 40° C ambient temperature)						
120° C Rise peak Standby ratings	<b>kW</b>	<b>10</b>				
	kVA	10				
105° C Rise peak Standby ratings	kW	9.2				
	kVA	9.2				
<b>Reactances</b> (per unit ± 30%)		<u>240</u> (06)	208 (311)	<u>480</u> (41)	600 (17)	<u>240</u> (311)
(Based on full load at 105° C rise rating)						
Synchronous		1.81	1.88	1.88	1.88	1.88
Transient		0.25	0.15	0.15	0.15	0.15
Subtransient		0.17	0.10	0.10	0.10	0.10
Negative sequence		0.31	0.18	0.18	0.18	0.18
Zero sequence		0.10	0.08	0.08	0.08	0.08
<b>Motor starting</b>		<u>240</u> (06)	<u>208</u> (311)	<u>480</u> (41)	<u>600</u> (17)	<u>240</u> (311)
Maximum kVA (90% sustained voltage)						
(At 20° C nominal generator & ambient temperature)	(EBS)	31	39	39	39	39
	(Shunt)	29	36	36	36	36



## Alternator data sheet

Frame size: CA115-D14

<b>Time constants</b> (sec)	<u>240</u> (06)	<u>208</u> (311)	<u>480</u> (41)	<u>600</u> (17)	<u>240</u> (311)
Transient	0.026	0.021	0.021	0.021	0.021
Subtransient	0.004	0.004	0.004	0.004	0.004
Open circuit	0.32	0.37	0.37	0.37	0.37
DC	0.004	0.004	0.004	0.004	0.004
<b>Windings</b> (@ 20° C)	<u>208</u> (311)	<u>480</u> (41)	<u>600</u> (17)	<u>240</u> (06)	<u>240</u> (311)
Stator resistance (Ohms per phase)	0.539	1.922	2.454	3.820	1.922
Rotor resistance (Ohms)	0.412	0.412	0.412	0.412	0.412
Number of leads	4	12	12	12	12



# Dual wall sub-base diesel fuel tanks - 10-200 kW generator sets



## Description

Cummins® offers two series of fuel tanks (basic series and regional series) for the 10~125 kW diesel generator sets. The “basic” series of fuel tanks provide economical solutions for areas with no or minimal local/regional code requirements on diesel fuel tanks. The footprint of “basic” tanks matches the generator set’s footprint. The “regional” series of fuel tanks provide flexible and upgradable solutions for areas with extensive local/regional code requirements on diesel fuel tanks. The footprint of the “regional” series of fuel tanks extends beyond the generator set to allow room for installation of optional features at factory or accessories in the field for meeting local/regional code requirements or customer specification on diesel fuel tanks. All fuel tanks and optional features are compatible with factory installed enclosures.

These tanks are constructed of heavy gauge steel and include an internally reinforced baffle structure for supporting the generator set. The fuel tank design features fewer seams and welds for better corrosion resistance performance.

These tanks are pre-treated with a conversion coating and then finished with a textured powder paint. The paint has superior UV and chemical resistance with best-in-class adhesion, flexibility, and durability to resist chipping and substrate corrosion. Both interior compartments are treated with a rust preventative for extended corrosion protection.

These tanks are UL and ULC Listed as secondary containment generator base tanks. Inner and outer containments are leak checked per UL and ULC testing procedures to ensure their integrity.

These fuel tanks are offered in various sizes to satisfy different fuel capacities requirements.

## Compatible generator set model

Engine	D1703M	V2203M	4BT3.3-G5	4BTAA3.3-G7	QSB5-G5	QSB7-G5
Generator set model names	C10D6	C20D6	C25D6	C50D6	C50D6C	C125D6D
	C15D6		C30D6	C60D6	C60D6C	C150D6D
			C35D6		C80D6C	C175D6D
			C40D6		C100D6C	C200D6D
					C125D6C	

## Basic fuel tanks

### Standard features:

**UL 142 and ULC-S601 listed** - Minimum 110% secondary containment capacity.

**NFPA and IFC** - Capable of meeting NFPA 30 and NFPA 110 codes with available factory installed optional features.

**Emergency pressure relief vents** - Ensure adequate ventilation of the primary and secondary tank compartments under extreme temperature and emergency conditions.

**Normal atmospheric vent** - "Mushroom" style vent ensures adequate venting of the primary tank during fill, generator set running and temperature variations. Raised above fuel fill.

**Raised fuel fill** - includes lockable sealed fuel cap.

**Lifting eyes** - Allow lifting of fuel tank with generator set installed.

### Optional features:

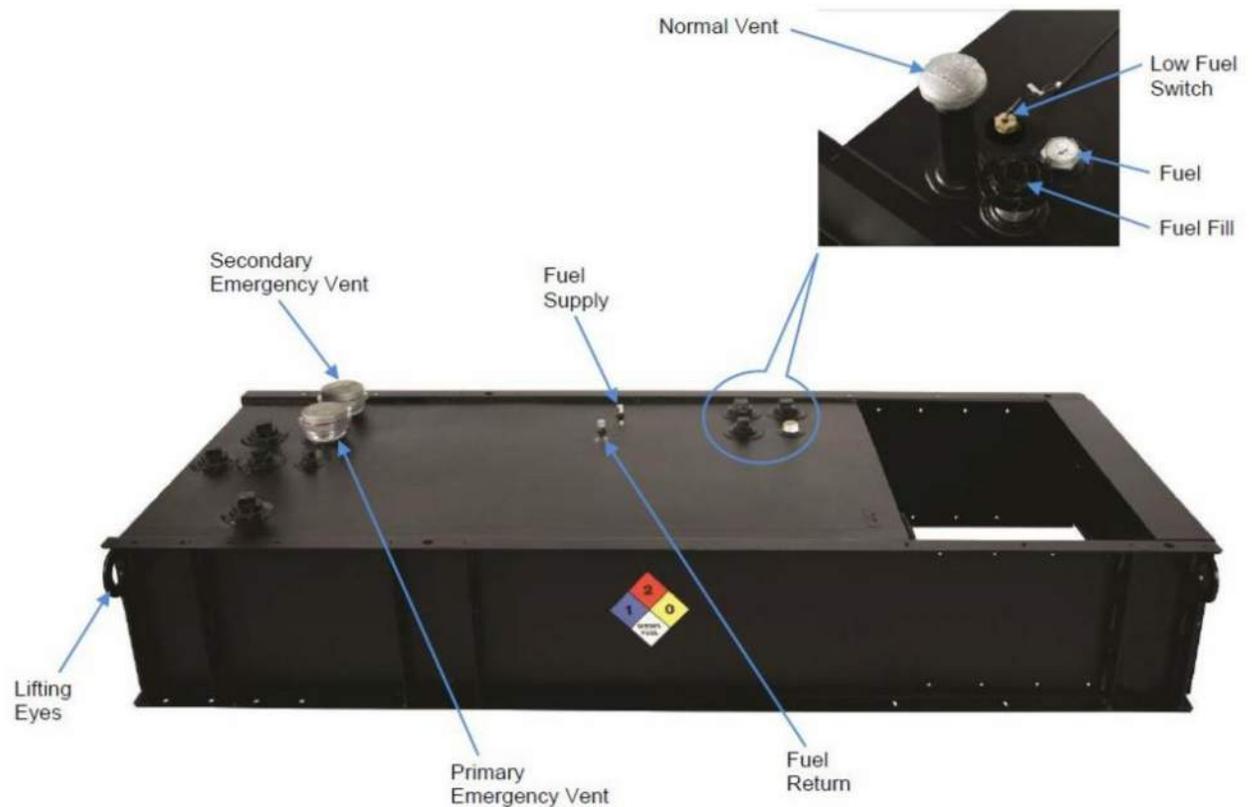
**Secondary containment basin switch (rupture switch)** - Activates a warning in the event of a primary tank leak. Side mounted.

**Low fuel level switch** - Activates a warning when 40% of the fuel is left in the tank.

**Fuel level gauge** - Provides direct reading of fuel level. Top mounted.

**Electric fuel level sender with gauge** - Allows remote electrical monitoring of fuel tank level. Flying leads for customer connection.

**Tank to foundation clearance** - 2-inch bolt-thru risers allow visual inspection under tank including rodent barrier.



\*Picture is for reference only. See outline drawing for tank specific information by model.

## Basic tanks

Exceeds  
72 hr min

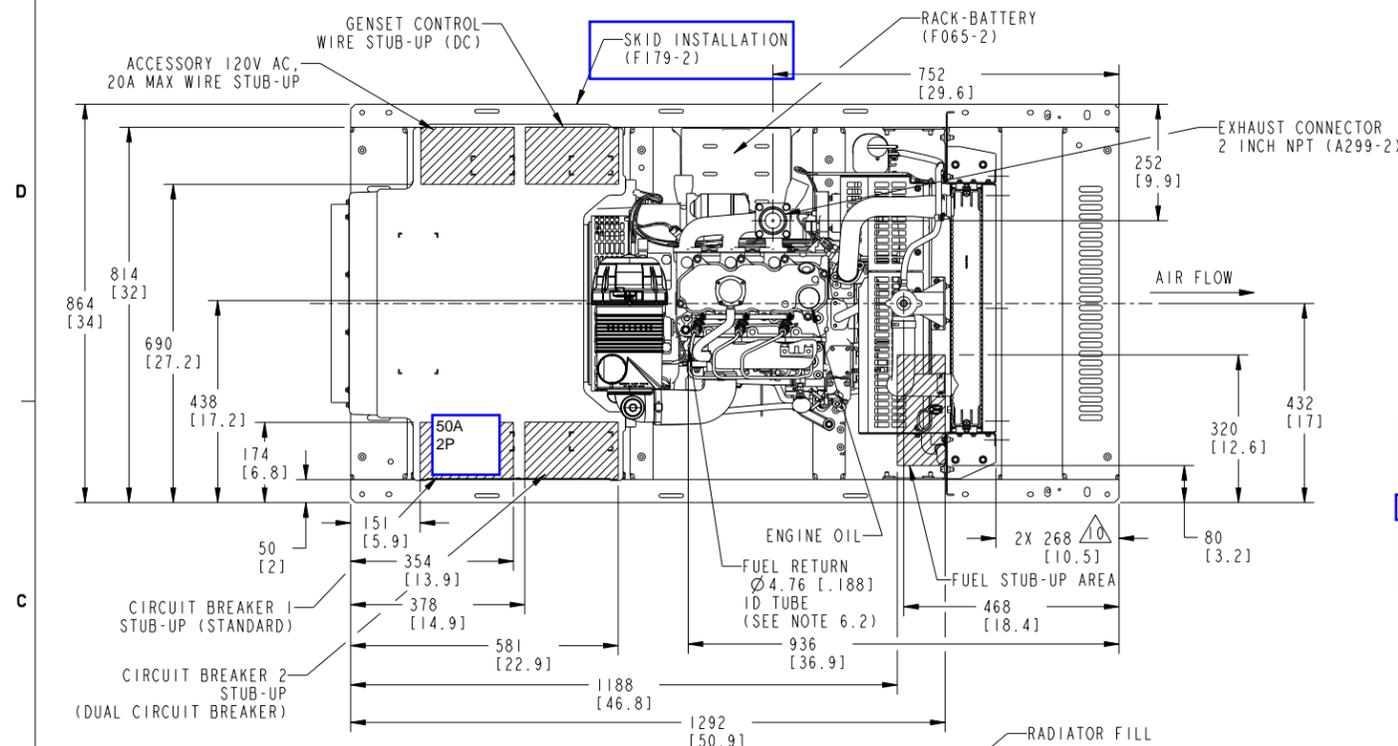
Generator set Standby power output	Generator set model	Engine model	Fuel consumption (100% load, Standby)	Tank feature code	Minimum run time feature	Tank dimensions (L x W x H)	Nominal dry weight*	Tank usable volume	Actual run time
kW			gal/hr		hr	inch	lbs	gal	hr
10	C10D6	D1703M	1.12	C319-2	24	65.7 x 34 x 13	310	46	41
				C320-2	48	65.7 x 34 x 23	583	91	81
15	C15D6	D1703M	1.38	C319-2	24	65.7 x 34 x 13	310	46	33
				C320-2	48	65.7 x 34 x 23	583	91	66
20	C20D6	V2203M	1.81	C319-2	24	65.7 x 34 x 13	310	46	25
				C320-2	48	65.7 x 34 x 23	583	91	50
25	C25D6	4BT3.3-G5	2.42	C319-2	24	87.6 x 34 x 15	456	74	31
				C320-2	48	87.6 x 34 x 23	669	132	54
				C342-2	72	96 x 31 x 30	977	230	95
30	C30D6	4BT3.3-G5	2.81	C319-2	24	87.6 x 34 x 15	456	74	26
				C320-2	48	87.6 x 34 x 32	908	195	69
				C342-2	72	96 x 31 x 30	977	230	81
35	C35D6	4BT3.3-G5	3.16	C319-2	24	87.6 x 34 x 23	669	132	42
				C320-2	48	87.6 x 34 x 32	908	195	62
				C342-2	72	96 x 31 x 30	977	230	72
40	C40D6	4BT3.3-G5	3.66	C319-2	24	87.6 x 34 x 23	669	132	36
				C320-2	48	87.6 x 34 x 32	908	195	53
				C341-2	72	96 x 31 x 30	977	230	62
50	C50D6	4BTAA3.3-G7	4.25	C319-2	24	87.6 x 34 x 23	669	132	31
				C320-2	48	87.6 x 34 x 42	977	263	62
				C341-2	72	96 x 31 x 30	977	230	54
60	C60D6	4BTAA3.3-G7	5.04	C319-2	24	87.6 x 34 x 23	669	132	26
				C320-2	48	87.6 x 34 x 42	977	263	52
				C340-2	72	96 x 31 x 30	977	230	45
50	C50D6C	QSB5-G5	5.30	C319-2	24	117 x 40 x 25	809	260	49
				C320-2	48	117 x 40 x 25	809	260	49
60	C60D6C	QSB5-G5	6.10	C319-2	24	117 x 40 x 25	809	260	42
				C320-2	48	117 x 40 x 33	966	353	57
80	C80D6C	QSB5-G5	7.30	C319-2	24	117 x 40 x 25	809	260	35
				C320-2	48	117 x 40 x 33	966	353	48
100	C100D6C	QSB5-G5	8.90	C319-2	24	117 x 40 x 25	809	260	29
				C320-2	48	117 x 40 x 48	1471	526	59
125	C125D6C	QSB5-G6	10.30	C319-2	24	117 x 40 x 25	809	260	25
				C320-2	48	117 x 40 x 48	1471	526	51
125	C125D6D	QSB7-G5	10.1	C319-2	24	117x40x25	809	258	25
				C320-2	48	117x40x48	1471	520	51
150	C150D6D		11.7	C319-2	24	117x40x33	966	350	29
				C320-2	48	180x40x42	2302	737	62
175	C175D6D		13.3	C319-2	24	117x40x33	966	350	26
				C320-2	48	180x40x42	2302	737	55
200	C200D6D	14.9	C319-2	24	117x40x48	1471	520	34	
			C320-2	48	180x40x42	2302	737	49	

Note: No OFFV is offered on basic fuel tanks.

\* All weights are approximate.

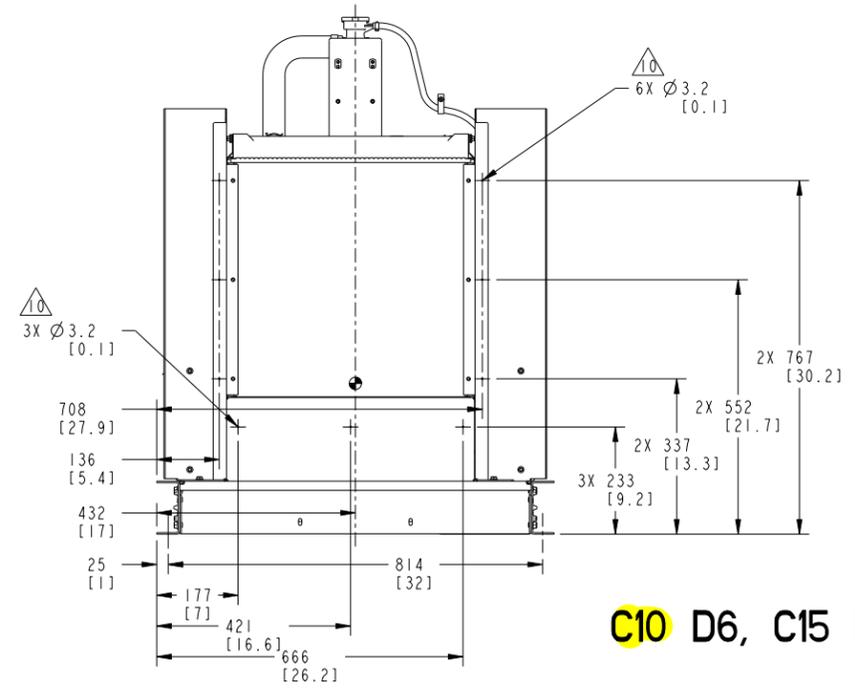
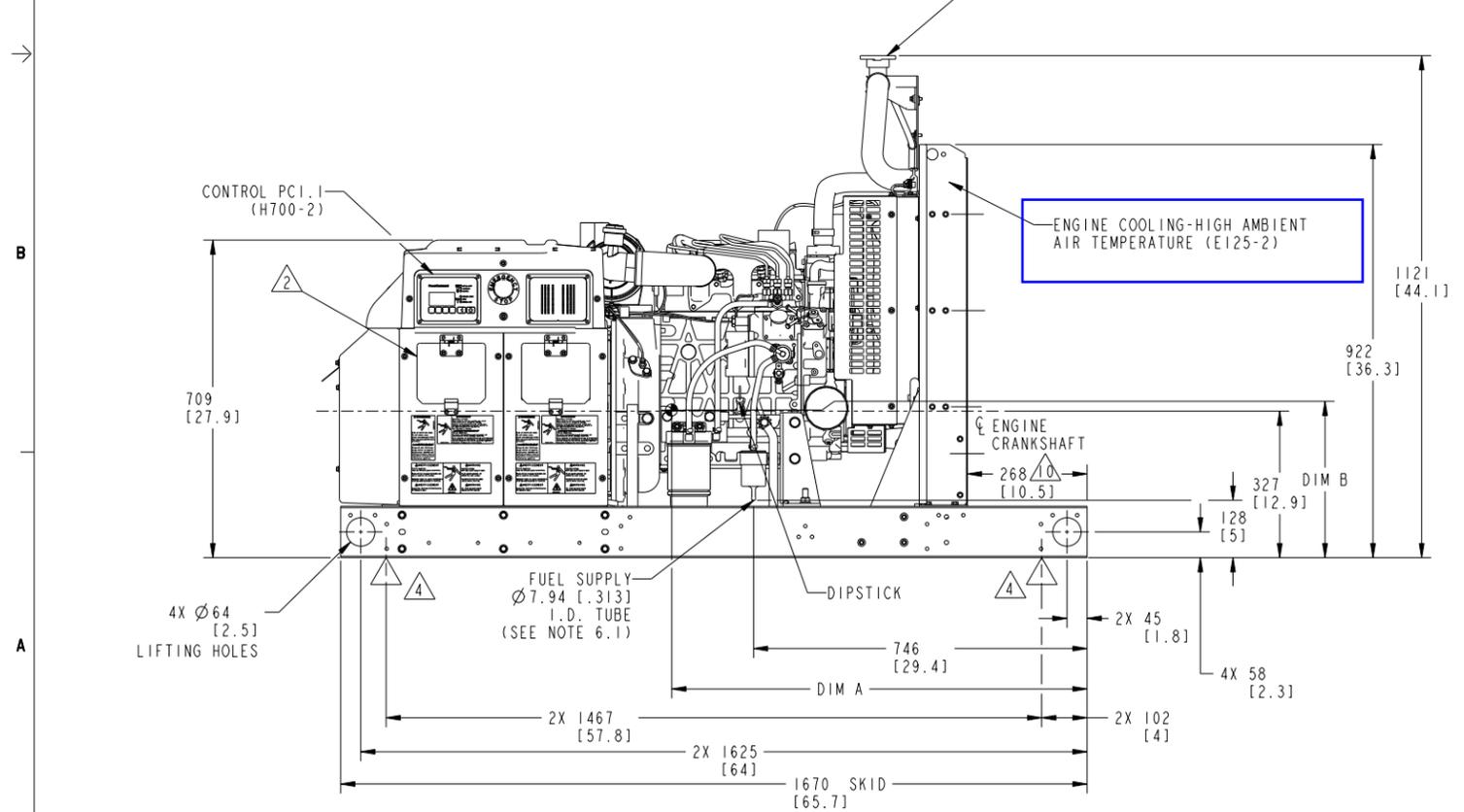
# *Section 3 – Generator Drawings*

REL NO	LTR	NO	REVISION	OWN	CAD	APVD	DATE
ECO-153780	D	1	ADD "ADS-570" ROW TO TABULATION	MAH	JR	R.FEENEY	20JUL15
		2	ADD "ADS-568" ROW TO TABULATION	MAH	JR	R.FEENEY	20JUL15



ALT DATA SHEET #	DIM A	DIM B	GENSET WET WEIGHT	
			KG	LB
ADS-567	924	356	385	847
ADS-571	948	353	431	949
ADS-570	928	356	306	675
ADS-568	930	353	298	657

- NOTES:
- DIMENSIONS SHOWN IN [ ] ARE IN INCHES.
  - REFER TO CIRCUIT BREAKER OUTLINE DRAWING FOR ELECTRICAL STUB-UP AREA FOR SPECIFIC BREAKERS.
  - CONTROL INTERFACE CONNECTIONS SHOULD BE MADE WITH FLEXIBLE CONNECTIONS.
  - Ø21 (0.81) HOLES MARKED BY  $\triangle$  FOR 4 POINT ISOLATION OR SECURING TO MOUNTING SURFACE.
  - REFER TO GENSET OR FUEL TANK FOUNDATION OUTLINES FOR ELECTRICAL, FUEL AND OTHER FOUNDATION SPECIFICS.
  - GENSET SUPPLIED WITH FLEXIBLE FUEL LINES THAT CAN BE CONNECTED TO ENGINE INTERFACE POINTS.
    - FUEL SUPPLY LINE: 415 [16.3] LONG WITH 1/4 INCH NPT MALE TERMINATION.
    - FUEL RETURN LINE: 1300 [51.2] LONG WITH 1/4 INCH NPT MALE TERMINATION.
  - OIL DRAIN EXTENSION: 5/8 INCH HOSE I.D.
  - FOR IBC SEISMIC CERTIFIED INSTALLATIONS, SEE GENSET IBC SEISMIC INSTALLATION REQUIREMENTS DRAWING.
  - DRY WEIGHT = WET WEIGHT - 16 KG (35 LB).
  - Ø3.2 HOLES FOR CUSTOMER-SUPPLIED COOLING EXHAUST AIR DUCT ADAPTER.

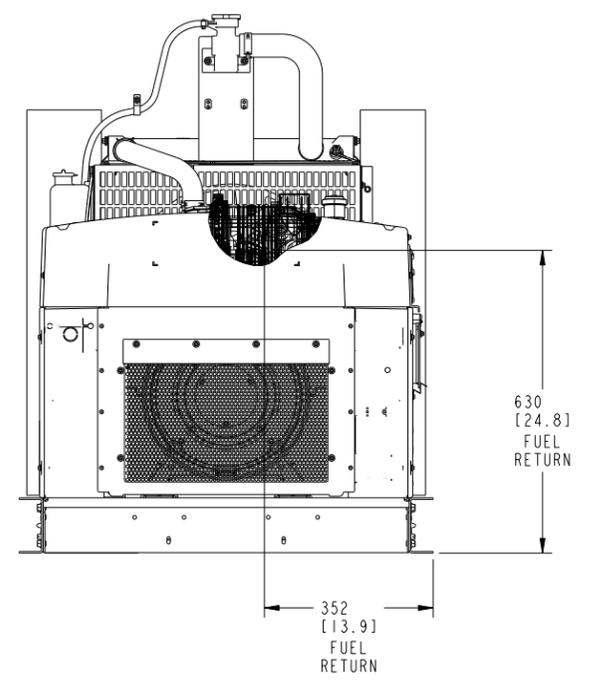
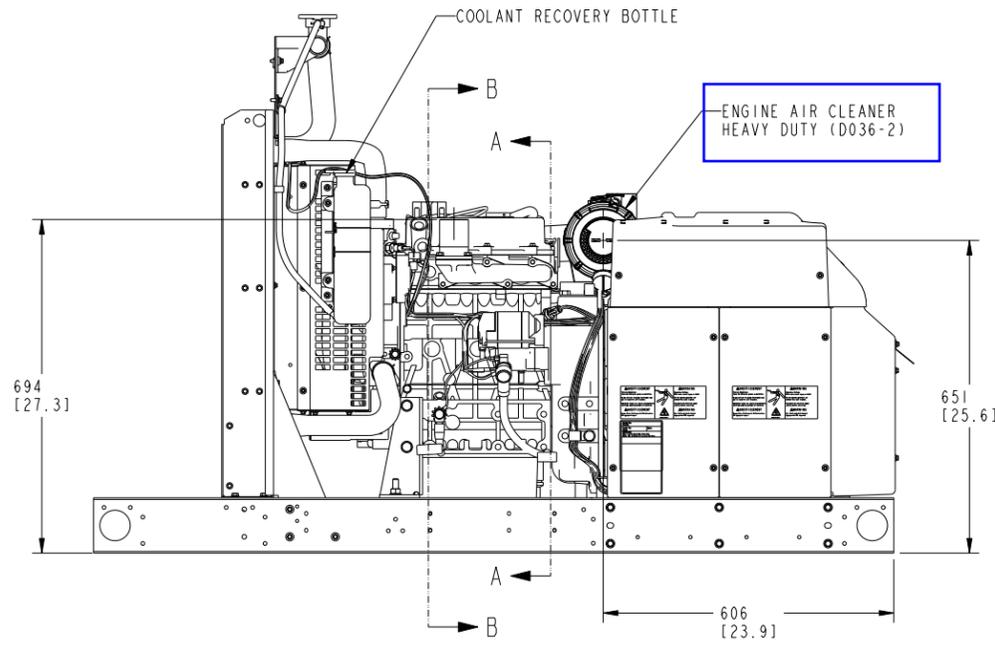
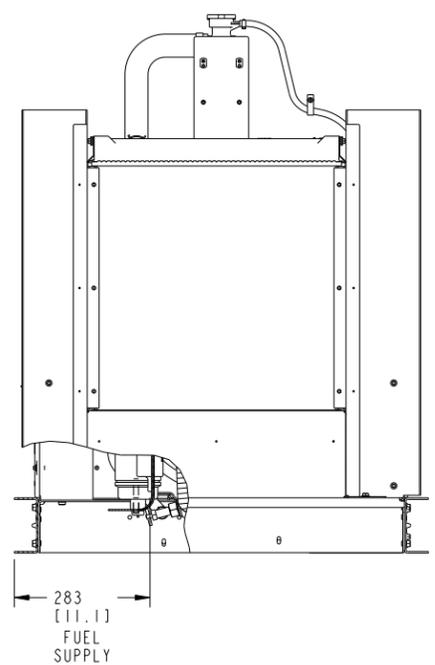


**C10 D6, C15 D6**

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM 10	OWN T. ABEL		CUMMINS POWER GENERATION	
X ± 0 .X ± 0.0 .XX ± 0.00	0.00- 4.99 +0.15/-0.08 5.00- 9.99 +0.20/-0.10 10.00-17.49 +0.25/-0.13 17.50-24.99 +0.30/-0.13	DO NOT SCALE PRINT	CAD E. NORDSTROM		OUTLINE, GENSET	
ANG TOL: ± 0.0°	SCALE: ~1/6		APVD E. NORDSTROM	SITE CODE	PGF	SHEET 1 OF 2
		- CONFIDENTIAL - PROPERTY OF CUMMINS POWER GENERATION GROUP	DATE 27SEP13	ARROW	D	REV D

PTC® Creo® Parametric

REL NO	LTR	NO	REVISION	OWN	CAD	APVD	DATE
ECO-153780	D	-	-----	MAH	DJR	R. FEENEY	20 JUL 15



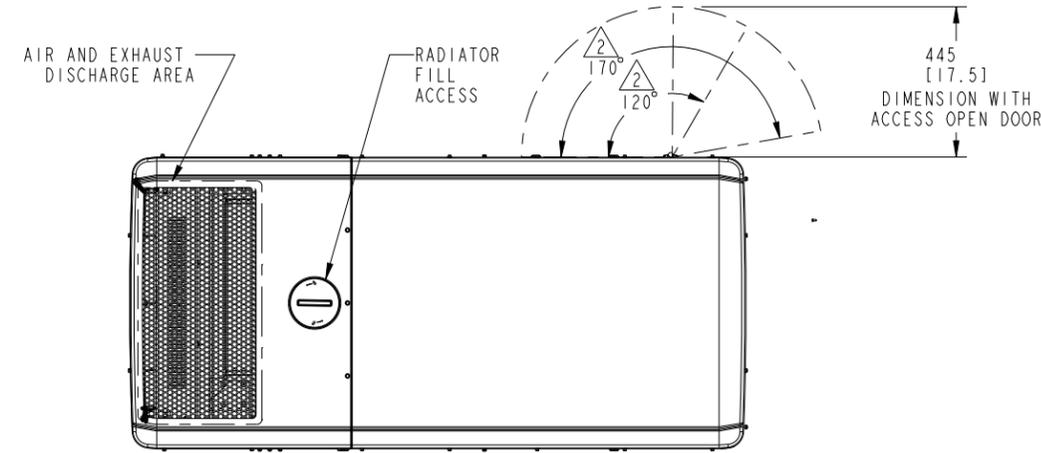
C10 D6, C15 D6

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM 10	OWN T. ABEL	CUMMINS POWER GENERATION
DO NOT SCALE PRINT		CND E. NORDSTROM	CND E. NORDSTROM	
DIM	X ± 0	0.00- 4.99 +0.15/-0.08	APVD E. NORDSTROM	OUTLINE, GENSET
	.X ± 0.0	5.00- 9.99 +0.20/-0.10	DATE 27SEP13	
	.XX ± 0.00	10.00-17.49 +0.25/-0.13		
ANG TOL: ± 0.0°		SCALE: ~1/6	ARROW	SHEET 2 OF 2
- CONFIDENTIAL - PROPERTY OF CUMMINS POWER GENERATION GROUP			FOR INTERPRETATION OF DIMENSIONS AND TOLERANCING, SEE ASME Y14.5M-1994	REV D

REL NO	LTR	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178681	E	1	ZONE A4; F231-2 AND F216-2... CONFIGURATIONS WAS F231-2 ...	--	--	--	--
			CONFIGURATION	PPP	KAMM	WINGFIELD	09JUL18
		2	UPDATE VIEWS PICTORIALLY	PPP	KAMM	WINGFIELD	09JUL18

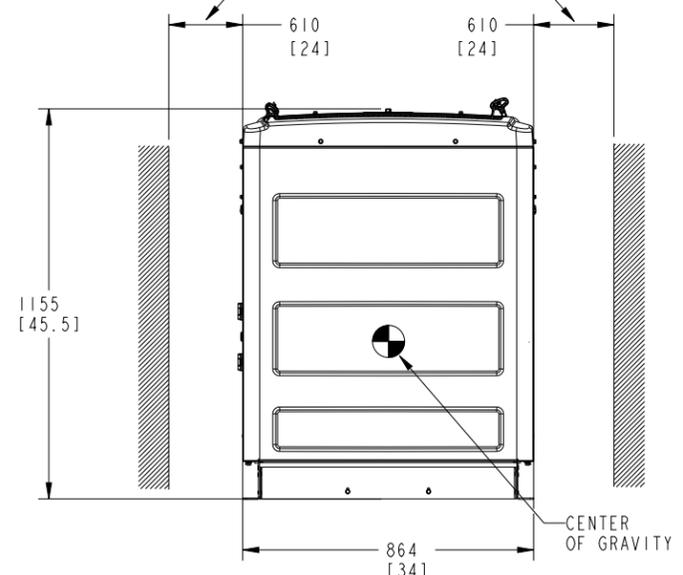
NOTES:

- DIM [ ] IN INCHES
- 120° AND 170° ARE DETENTED OPEN ANGLE OF HINGE.
- WHEN HOUSING IS INSTALLED ON AN OPEN GENERATOR SET, THE TOTAL WEIGHT WILL INCREASE BY 84 KG (185 LBS). THIS INCLUDES THE MUFFLER.
- THE CENTER OF GRAVITY (CG) OF THE GENERATOR SET WHEN EQUIPPED WITH THIS HOUSING SHIFTS APPROXIMATELY 51MM (2 INCH) TOWARDS THE AIR DISCHARGE END OF HOUSING AND 42MM (1.5 INCH) FROM THE GROUND. COMPARED TO THE EQUIVALENT NON-HOUSED PRODUCT WITH THE F179 SKID. SEE HOUSING READY SKID BASE OUTLINE DRAWING FOR CG LOCATION OF NON HOUSED PRODUCT.

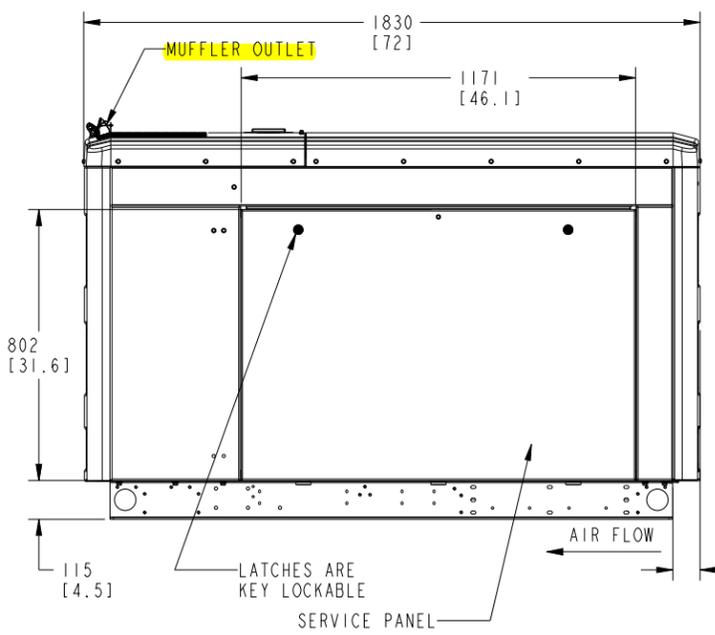


TOP VIEW

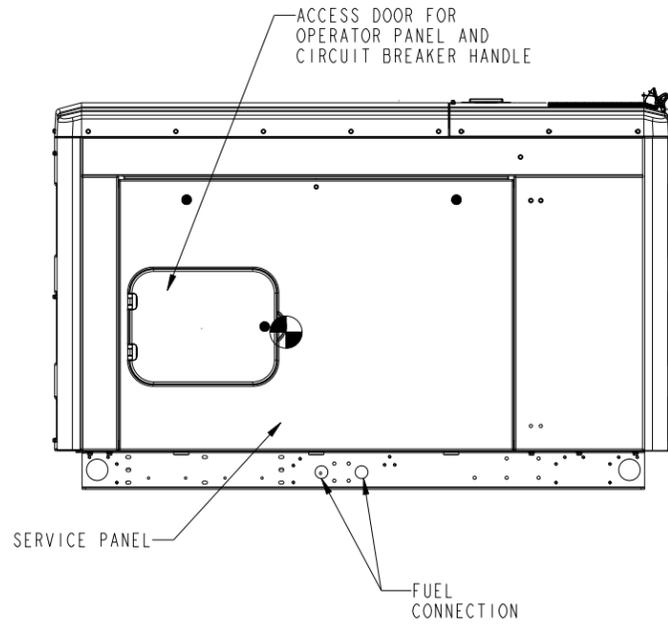
DISTANCE REQUIRED TO LIFT OFF SERVICE PANELS



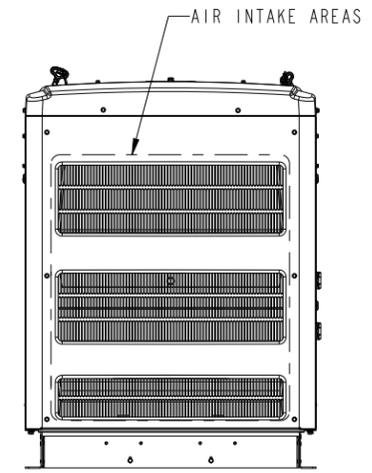
OUTLET VIEW



LEFT SIDE VIEW



RIGHT SIDE VIEW



INLET VIEW

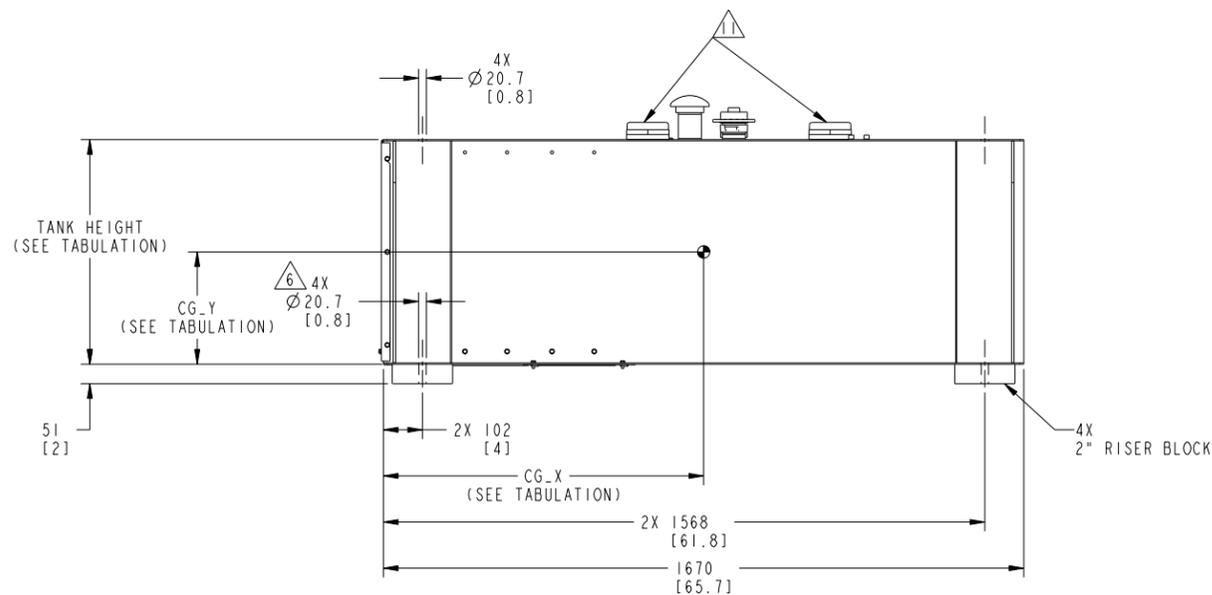
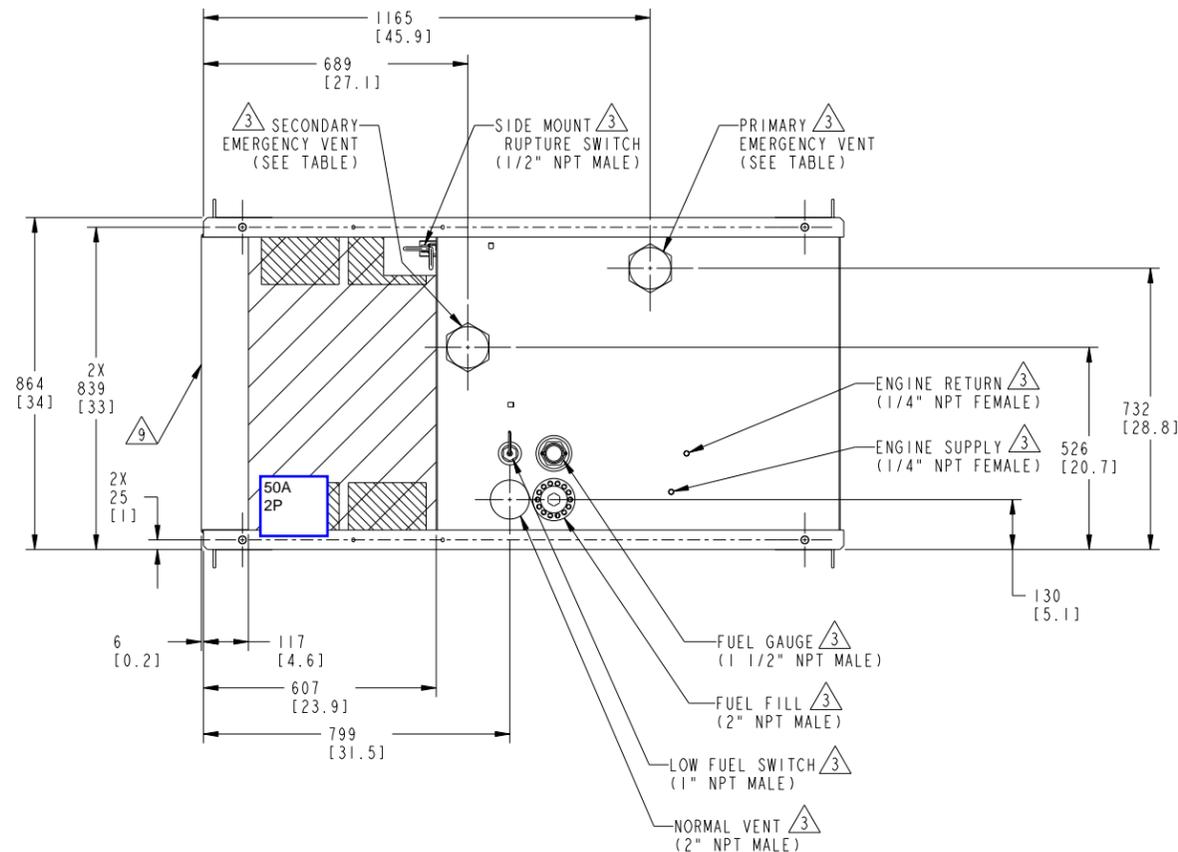
~~F231-2~~ AND F216-2 ENCLOSURE CONFIGURATIONS

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SH TO NONE	DWN S_GAMBHIRE		CUMMINS POWER GENERATION									
DO NOT SCALE PRINT			CKD T_RADKE		OUTLINE, ENCLOSURE									
DIM	TOLERANCE	<table border="1"> <tr> <td>X ± 1</td> <td>0.00-4.99 +0.15/-0.08</td> </tr> <tr> <td>.X ± 0.8</td> <td>5.00-9.99 +0.20/-0.10</td> </tr> <tr> <td>.XX ± 0.38</td> <td>10.00-17.49 +0.25/-0.13</td> </tr> <tr> <td></td> <td>17.50-24.99 +0.30/-0.13</td> </tr> </table>	X ± 1	0.00-4.99 +0.15/-0.08	.X ± 0.8	5.00-9.99 +0.20/-0.10	.XX ± 0.38	10.00-17.49 +0.25/-0.13		17.50-24.99 +0.30/-0.13	APVD J_MATTHEWS	SITE CODE	A043U604	
X ± 1	0.00-4.99 +0.15/-0.08													
.X ± 0.8	5.00-9.99 +0.20/-0.10													
.XX ± 0.38	10.00-17.49 +0.25/-0.13													
	17.50-24.99 +0.30/-0.13													
ANG TOL: ± 0.5°		SCALE: 1/10	DATE 17JAN13	PGF	SHEET 1 OF 2	DWG REV E								
- CONFIDENTIAL - PROPERTY OF CUMMINS POWER GENERATION GROUP FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ASME Y14.5M-1994			FIRST USED ON ARROW											

REL NO	LTR	NO	REVISION	OWN	CAD	APVD	DATE
ECO-138549	A	1	PRODUCTION RELEASE	RAH	MMG	M.GRIFFITH	08AUG13

NOTES:

- TANKS ARE UL142 LISTED. SECONDARY CONTAINMENT FUEL TANK. REFER TO TANK LABELS AND LOCAL CODE TO DETERMINE VENTING REQUIREMENTS FOR BOTH COMPARTMENTS.
- SUBBASE FUEL TANK MOUNTING. EXCESSIVE TWISTING OF THE FUEL TANK MAY RESULT IN STRUCTURAL FAILURE OF THE TANK. TO ENSURE THE INSTALLATION DOES NOT EXCESSIVELY TWIST THE FUEL TANK, THE FOLLOWING PROCEDURE MUST BE OBSERVED:
  - REFER TO APPLICATION MANUAL T030 FOR GENERAL SET MOUNTING GUIDELINES.
  - AFTER PLACING SET ON FOUNDATION, VERIFY ALL FOUR MOUNTING PADS CONTACT FOUNDATION.
  - THERE ARE SHIMS ATTACHED TO EACH FUEL TANK. THESE ARE INTENDED TO FILL ANY GAP BETWEEN THE MOUNTING PADS AND FOUNDATION.
  - INSERT THE MAXIMUM HEIGHT STACK OF SHIMS THAT WILL SLIDE INTO THE GAP.
  - TIGHTEN TANK HOLD DOWN MOUNTING FASTENERS.
- INDICATES PIPE SIZE OF FEATURE OR OPTION INDICATED.
- DIMENSIONS IN [ ] ARE IN INCHES.
- FOR IBC SEISMIC CERTIFIED INSTALLATIONS, SEE GENSET IBC SEISMIC INSTALLATION REQUIREMENTS DRAWING.
- FUEL TANK HAS A FLANGE THICKNESS OF UP TO 10 mm [0.394 in], ALLOW EXTRA LENGTH ON HARDWARE FOR UNEVENNESS OF MOUNTING SURFACE. RISER FEATURE WILL ADD ADDITIONAL 51 mm [2 in].
- FUEL TANK PERIMETER IS SHOWN. FOUNDATION SHOULD BE EXTENDED BEYOND THIS PERIMETER. SEE (T030) APPLICATION MANUAL - (SEE SHEET 3).
- INSTALLATION & REMOVAL LIFTING AND SERVICE ACCESS CLEARANCE (SUGGESTED MINIMUM) - (SEE SHEET 3).
- REMOVABLE STUB-UP ACCESS PANEL.
- ELECTRICAL STUB-UP AREA WITH FUEL TANK RISER FEATURE INSTALLED - (SEE SHEET 3).
- MAINTAIN MIN 51 mm [2 in] CLEARANCE ABOVE E-VENT.
- WEIGHT AND CENTER OF GRAVITY INFORMATION IS ESTIMATED AND CHANGES WITH TANK FEATURE INSTALLATION.

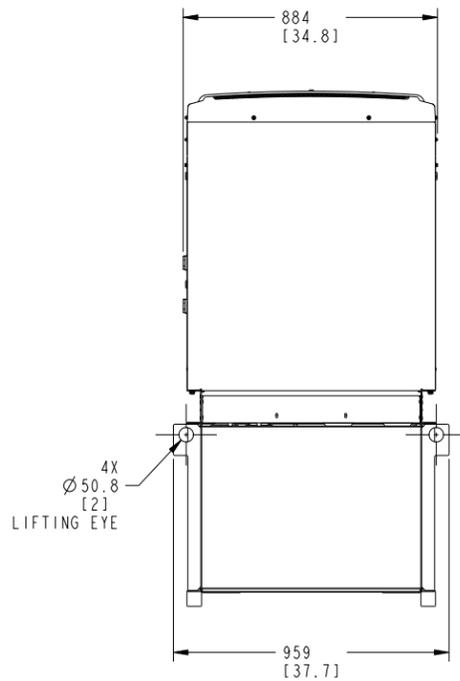
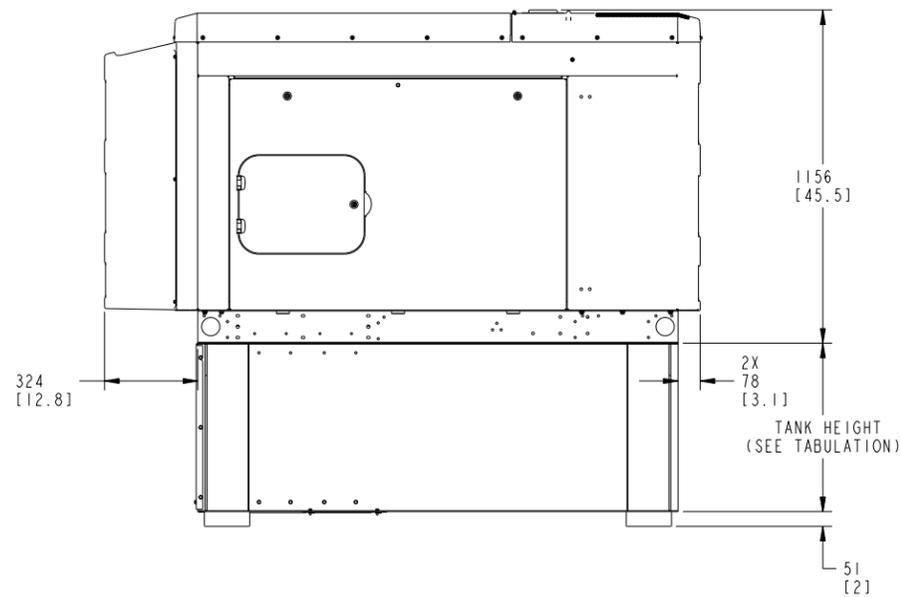
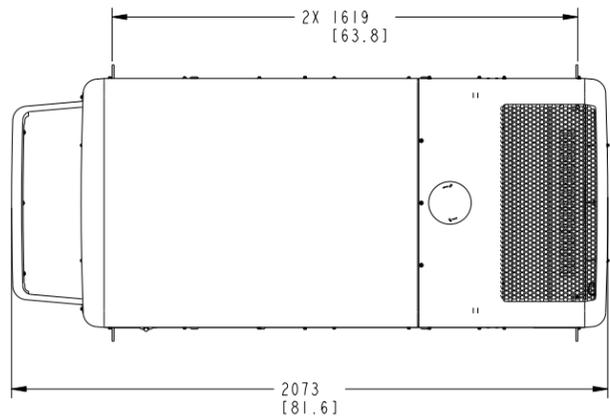


PART NUMBER IDENTIFICATION		
GENSET MODEL APPLICATION	TANK FEATURE CODE/RUN TIME	
	C319-2	C320-2
	24 HR	48 HR
C10 D6	A045T328	A045T334
C15 D6	A045T328	A045T334
C20 D6	A045T328	A045T334

TANK NUMBER	TANK HEIGHT	E-VENT SIZE	TANK VOLUME-LITER [GAL]		WEIGHT kg [lb]		CG_X		CG_Y	
			TOTAL (EST)	USABLE	MIN	MAX	MIN	MAX	MIN	MAX
			A045T328	330 [13]	3\" NPT	182 [48]	174 [46]	130 [286]	152 [334]	1016 [40]
A045T334	584 [23]	3\" NPT	363 [96]	344 [91]	240 [529]	289 [637]	1016 [40]	1067 [42]	279 [11]	330 [13]

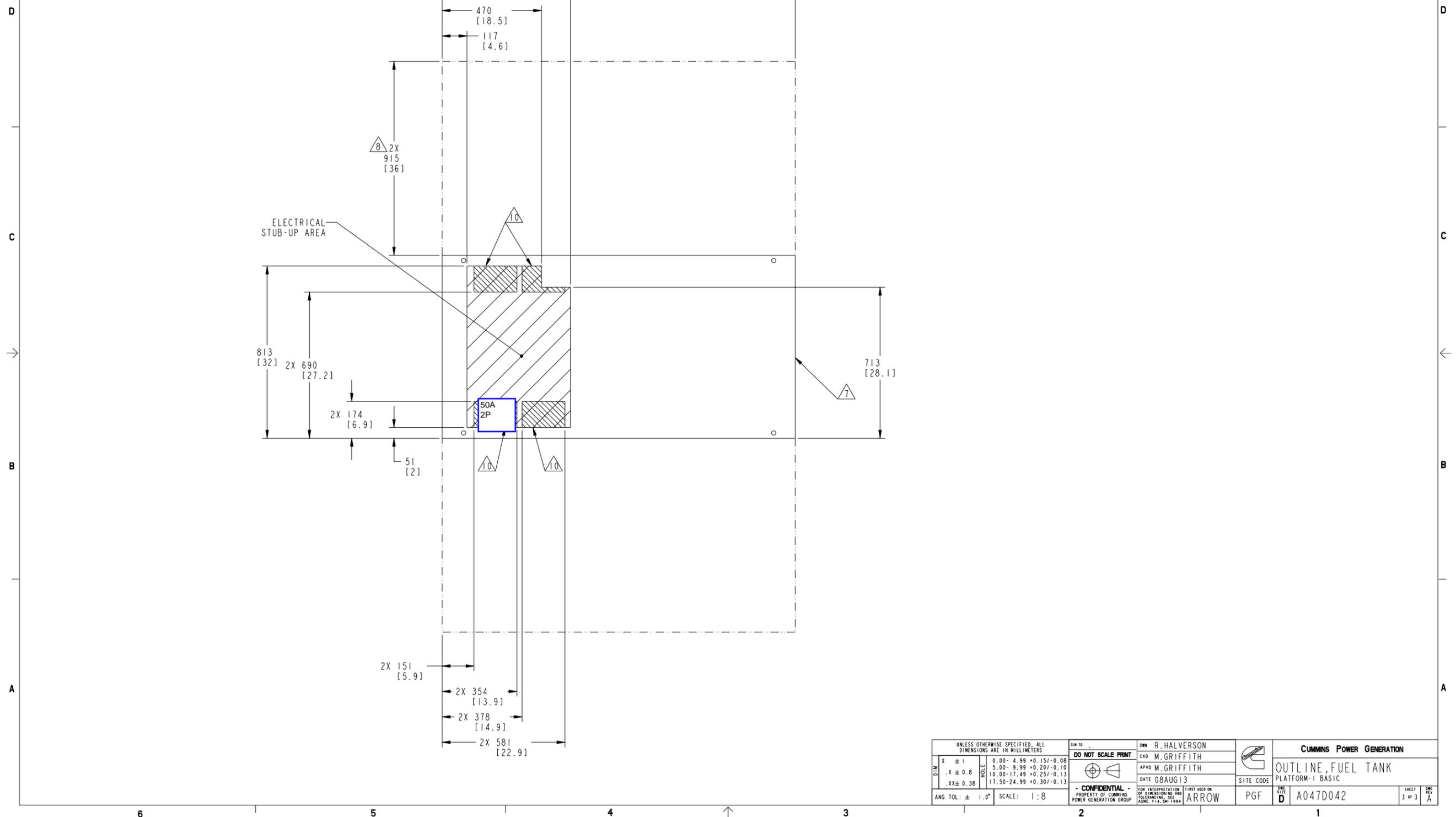
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM 10	OWN R. HALVERSON	CUMMINS POWER GENERATION
DO NOT SCALE PRINT		DO NOT SCALE PRINT	CAD M. GRIFFITH	
X ± 1	0.00- 4.99 +0.15/-0.08		APVD M. GRIFFITH	OUTLINE, FUEL TANK
.X ± 0.8	5.00- 9.99 +0.20/-0.10		DATE 08AUG13	
.XX ± 0.38	10.00-17.49 +0.25/-0.13		17.50-24.99 +0.30/-0.13	SITE CODE
ANG TOL: ± 1.0°	SCALE: 1:8	FOR INTERPRETATION OF DIMENSIONS AND TOLERANCING, SEE ASME Y14.5M-1994	ARROW	PGF
- CONFIDENTIAL - PROPERTY OF CUMMINS POWER GENERATION GROUP			FIRST USED ON	SHEET 1 OF 3
			ARROW	REV A

REL NO	LTR	NO	REVISION	OWN	CAD	APVD	DATE
ECO-138549	A	1	PRODUCTION RELEASE	RAH	MMG	M.GRIFFITH	08AUG13



UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM 10	OWN R. HALVERSON		CUMMINS POWER GENERATION	
DO NOT SCALE PRINT		CAD M. GRIFFITH	OUTLINE, FUEL TANK			
DIM	X ± 1	0.00- 4.99 +0.15/-0.08	APVD M. GRIFFITH	SITE CODE	PLATFORM-1 BASIC	
	.X ± 0.8	5.00- 9.99 +0.20/-0.10	DATE 08AUG13		SHEET 2 OF 3	
	.XX ± 0.38	10.00-17.49 +0.25/-0.13	ARROW		REV A	
ANG TOL: ± 1.0°		SCALE: 3:32	FOR INTERPRETATION OF DIMENSIONS AND TOLERANCING, SEE ASME Y14.5M-1994	PGF	D	A047D042

REL NO	LTR	NO	REVISION	DRN	CAD	APVD	DATE
ECO-138549	A	1	PRODUCTION RELEASE	RAH	MMG	M.GRIFFITH	08AUG13



UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM 10	DRN R. HALVERSON		CUMMINS POWER GENERATION	
DO NOT SCALE PRINT			CAD M. GRIFFITH		OUTLINE, FUEL TANK	
DIM	X ± 1	0.00- 4.99 +0.15/-0.08	APVD M. GRIFFITH	SITE CODE	PLATFORM-1 BASIC	
	.X ± 0.8	5.00- 9.99 +0.20/-0.10	DATE 08AUG13			
	.XX ± 0.38	10.00-17.49 +0.25/-0.13				
ANG TOL: ± 1.0°		SCALE: 1:8			PGF	SHEET 3 OF 3 REV A
			- CONFIDENTIAL - PROPERTY OF CUMMINS POWER GENERATION GROUP <small>FOR INTERPRETATION OF DIMENSIONS AND TOLERANCING, SEE ASME Y14.5M-1994</small>		FIRST USED ON ARROW D	A047D042

**ULTRA LOW SULPHUR DIESEL (ULSD)  
SAFETY DATA SHEET**



# SAFETY DATA SHEET

SDS ID NO.: 0289MAR019

Revision date 02/11/2021

## 1. IDENTIFICATION

**Product Name** Marathon Petroleum No. 1 Ultra Low Sulfur Diesel

**Synonym** No. 1 Ultra Low Sulfur Diesel 15 ppm sulfur max; Diesel, Motor Vehicle Use, Undyed; No. 1 ULSD; No. 1 MV 15 Diesel; No. 1 Diesel, Tax Exempt-Motor Vehicle Use, Dyed; Kerosene

**Product code** 0289MAR019

**Chemical family** Complex Hydrocarbon Substance

**Recommended use** Fuel.

**Restrictions on use** All others.

**Manufacturer, Importer, or Responsible Party Name and Address**  
**MARATHON PETROLEUM COMPANY LP**  
**539 South Main Street**  
**Findlay, OH 45840**

**SDS Information** 1-419-421-3070 (M-F; 8-5 EST)

**24 Hour Emergency Telephone** CHEMTREC: 1-800-424-9300 (CCN# 13740)

## 2. HAZARD IDENTIFICATION

### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Classification

Flammable liquids	Category 3
Skin corrosion/irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Chronic aquatic toxicity	Category 2

### Hazards Not Otherwise Classified (HNOC)

Static accumulating flammable liquid

### Label Elements

#### Danger

FLAMMABLE LIQUID AND VAPOR  
May accumulate electrostatic charge and ignite or explode  
May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness  
Suspected of causing cancer  
Toxic to aquatic life with long lasting effects



**Appearance** Clear, colorless to pale yellow liquid.

**Physical State** Liquid

**Odor** Kerosene

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting/equipment  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge  
 Avoid breathing mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Wash hands and any possibly exposed skin thoroughly after handling  
 Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical attention  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 If skin irritation occurs: Get medical attention  
 Wash contaminated clothing before reuse  
 If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing  
 Call a poison center or doctor if you feel unwell  
 If swallowed: Immediately call a poison center or doctor  
 Do NOT induce vomiting  
 In case of fire: Use water spray, fog or regular foam for extinction  
 Collect spillage

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Keep cool  
 Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container at an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Composition Information**

Name	CAS Number	% Concentration
Kerosine (petroleum), hydrodesulfurized	64742-81-0	0-100
Kerosine (petroleum)	8008-20-6	0-100
Naphthalene	91-20-3	0.3-2.6

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

**4. FIRST AID MEASURES**

**First aid measures**

- General advice** In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).
- Inhalation** Remove to fresh air. If not breathing, utilize bag valve mask or other form of barrier device to institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. If symptoms occur get medical attention.
- Skin contact** Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation occurs. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).
- Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.
- Eye contact** Flush immediately with large amounts of water for at least 15 minutes. Gently remove contacts while flushing. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.
- Ingestion** Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. Get immediate medical attention.

**Most important signs and symptoms, both short-term and delayed with overexposure**

- Adverse effects** Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Additional effects may include skin sensitization. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

**Indication of any immediate medical attention and special treatment needed**

- Notes to physician** INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.
- SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.
- INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. The metabolism of fatty acid methyl ester may release free methanol in the body that could induce metabolic acidosis with delayed effects. If a large amount of product is ingested, i.e. several ounces, consider the use of ethanol or fomepizole (Antizol) and hemodialysis. Consult standard literature or contact a poison control center for treatment details.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam or water spray can be used. For large fires, water spray, fog or foam can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.				
<b>Unsuitable extinguishing media</b>	Do not use straight water streams to avoid spreading fire.				
<b>Specific hazards arising from the chemical</b>	This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.				
<b>Hazardous combustion products</b>	Smoke, carbon monoxide, and other products of incomplete combustion.				
<b>Explosion data</b>					
Sensitivity to mechanical impact:	No.				
Sensitivity to static discharge:	Yes.				
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water spray and foam must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.				
<b>Additional firefighting tactics</b>	<p><b>FIRES INVOLVING TANKS OR CAR/TRAILER LOADS:</b> Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.</p> <p><b>EVACUATION:</b> Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.</p>				
<b>NFPA</b>	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">Health 1</td> <td style="text-align: center;">Flammability 2</td> <td style="text-align: center;">Instability 0</td> <td style="text-align: center;">Special Hazard -</td> </tr> </table>	Health 1	Flammability 2	Instability 0	Special Hazard -
Health 1	Flammability 2	Instability 0	Special Hazard -		

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. All contaminated surfaces will be slippery.
<b>Protective equipment</b>	Use personal protection measures as recommended in Section 8.
<b>Emergency procedures</b>	Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
<b>Environmental precautions</b>	Avoid release to the environment. Avoid subsoil penetration.

<b>Methods and materials for containment</b>	Contain liquid with sand or soil. Prevent spilled material from entering storm drains, sewers, and open waterways.
<b>Methods and materials for cleaning up</b>	Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

## 7. HANDLING AND STORAGE

<b>Safe handling precautions</b>	<p>NEVER SIPHON THIS PRODUCT BY MOUTH. Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Vapors may travel along the ground or be moved by ventilation. Flashback may occur along vapor trails. No smoking. Use only non-sparking tools. Avoid repeated and prolonged skin contact. Avoid breathing vapors or mists. Use only with adequate ventilation. Use personal protection measures as recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.</p> <p>Hydrocarbons are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pumping at high flow rates or loading and transfer operations. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Sudden release of hot organic chemical vapors or mists from process equipment operating under elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignition of vapors or mists without the presence of obvious ignition sources. Nozzle spouts must be kept in contact with the containers or tank during the entire filling operation.</p> <p>Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers.</p> <p>A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling.</p> <p>Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.</p> <p>High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4).</p>
<b>Storage conditions</b>	Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Do not store near an open flame, heat or other sources of ignition.
<b>Incompatible materials</b>	Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Name	ACGIH TLV	OSHA PELS	NIOSH IDLH
Kerosine (petroleum), hydrodesulfurized 64742-81-0	200 mg/m <sup>3</sup> TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-
Kerosine (petroleum) 8008-20-6	200 mg/m <sup>3</sup> TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>	250 ppm

**Notes:** No further information available.

**Engineering measures** Local or general exhaust required in an enclosed area or with inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

### Personal protective equipment

**Eye protection** Use goggles or face-shield if the potential for splashing exists.

**Skin and body protection** Viton® or polyethylene/ethylene vinyl alcohol (PE/EVAL) gloves for prolonged or repeated skin exposure. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.

**Respiratory protection** Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is the potential for airborne exposures to exceed permissible exposure limits or if excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Appearance** Clear, colorless to pale yellow liquid.  
**Physical State** Liquid  
**Color** Clear to light yellow (May be dyed red)  
**Odor** Kerosene  
**Odor Threshold** No data available.

<u>Property</u>	<u>Values (method)</u>
<b>pH</b>	Not applicable
<b>Melting Point / Freezing Point</b>	-60 to -40 °C -77 to -40 °F (ASTM D5949)
<b>Initial Boiling Point / Boiling Range</b>	133-294 °C / 272-562 °F (ASTM D86)
<b>Flash Point</b>	33-56 °C / 93-133 °F (ASTM D93)
<b>Evaporation Rate</b>	No data available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Flammability Limit in Air (%):</b>	
<b>Upper Flammability Limit:</b>	5.0
<b>Lower Flammability Limit:</b>	0.4
<b>Explosion Limits</b>	No data available.
<b>Vapor Pressure</b>	No data available.
<b>Vapor Density</b>	No data available.

<b>Specific Gravity / Relative Density</b>	0.84
<b>Water Solubility</b>	No data available.
<b>Partition Coefficient</b>	No data available.
<b>Autoignition Temperature</b>	210 °C / 410 °F
<b>Decomposition Temperature</b>	No data available.
<b>Kinematic Viscosity</b>	1.37-6.97 cSt @ 40°C (ASTM D445)
<b>VOC Content (%)</b>	No data available.

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	The product is non-reactive under normal conditions.
<b>Chemical stability</b>	The material is stable at 70°F (21°C ), 760 mmHg pressure.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Will not occur.
<b>Conditions to avoid</b>	Excessive heat, sources of ignition, open flame.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	None known under normal conditions of use. However, use in an area without adequate ventilation may result in hazardous levels of carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Potential short-term adverse effects from overexposures

<b>Inhalation</b>	May cause irritation of respiratory tract. May cause drowsiness or dizziness. Breathing high concentrations of this material, for example, in a confined space or by intentional abuse, can cause irregular heartbeats which can cause death.
<b>Eye contact</b>	Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.
<b>Skin contact</b>	Causes skin irritation. Effects may become more serious with repeated or prolonged contact. May be absorbed through the skin in harmful amounts.
<b>Ingestion</b>	May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

### Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
Kerosine (petroleum), hydrodesulfurized 64742-81-0	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Kerosine (petroleum) 8008-20-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
Naphthalene 91-20-3	533 mg/kg (Mouse)	> 2000 mg/kg (Rabbit)	> 340 mg/m <sup>3</sup> (Rat) 1 h

### Immediate and delayed effects as well as chronic effects from short and long-term exposure

MIDDLE DISTILLATES, PETROLEUM: Petroleum middle distillates have produced skin tumors in mice after repeated and prolonged skin contact. Additional studies indicated prolonged skin irritation contributes to tumor development. Repeated dermal exposures to high concentrations in test animals resulted in reduced litter size and weight, and increased fetal resorptions at doses toxic to the mother. Inhalation exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function. Repeated dermal application of petroleum gas oils resulted in

decreased liver, thymus, and spleen weights, and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased hematopoiesis and lymphocyte depletion. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**NAPHTHALENE:** Excessive exposure to naphthalene may cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. Lifetime inhalation exposure of laboratory rodents to naphthalene resulted in cancers of the respiratory tract in male and female rats. A small increase in cancer of the lung was observed in female mice, but no evidence of lung cancer was observed in male mice. Long-term exposure to excessive airborne naphthalene concentrations may result in destruction of red blood cells, a condition referred to as hemolytic anemia.

**DIESEL EXHAUST:** The combustion of diesel fuels produces gases including carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur, and hydrocarbons that can be irritating and hazardous with overexposure. Long-term occupational overexposure to diesel exhaust and diesel exhaust particulate matter has been associated with an increased risk of respiratory disease, including lung cancer, and is characterized as a "known human carcinogen" by the International Agency for Research on Cancer (IARC), as "a reasonably anticipated human carcinogen" by the National Toxicology Program, and as "likely to be carcinogenic to humans" by the EPA, based upon animal and occupational exposure studies. However, uncertainty exists with these classifications because of deficiencies in the supporting occupational exposure/epidemiology studies, including reliable exposure estimates. Lifetime animal inhalation studies with pulmonary overloading exposure concentrations of diesel exhaust emissions have produced tumors and other adverse health effects. However, in more recent long-term animal inhalation studies of diesel exhaust emissions, no increase in tumor incidence and in fact a substantial reduction in adverse health effects along with significant reductions in the levels of hazardous material emissions were observed and are associated with fuel composition alterations coupled with new technology diesel engines.

**Adverse effects related to the physical, chemical and toxicological characteristics**

<b>Signs and symptoms</b>	Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Additional effects may include skin sensitization. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.
<b>Acute toxicity</b>	None known.
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	None known.
<b>Sensitization</b>	None known.
<b>Mutagenic effects</b>	None known.
<b>Carcinogenicity</b>	Suspected of causing cancer.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Kerosine (petroleum) 8008-20-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

**Reproductive toxicity** None known.

**Specific Target Organ Toxicity** May cause respiratory irritation. May cause drowsiness or dizziness.

(STOT) - single exposure

**Specific Target Organ Toxicity (STOT) - repeated exposure** None known.

**Aspiration hazard** May be fatal if swallowed or vomited and enters airways.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Fish	Crustacea	Algae/aquatic plants
Kerosine (petroleum), hydrodesulfurized 64742-81-0	96-hr LL50 >1 - <10 mg/l Fish	48-hr EC50 >1 - <10 mg/l Daphnia	-
Kerosine (petroleum) 8008-20-6	96-hr LL50 = 18-25 mg/l Fish	48-hr EL50 = 1.4-21 mg/l Invertebrates	72-hr EL50 = 5.0-11 mg/l Algae
Naphthalene 91-20-3	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 96-hr LC50 = 1.99 mg/l Fathead minnow (static)	48-hr LC50 = 1.6 mg/l Daphnia magna	-

**Persistence and degradability** Expected to be inherently biodegradable.

**Bioaccumulation** Has the potential to bioaccumulate.

**Mobility in soil** May partition into air, soil and water.

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Description of waste residues** This material may be a flammable liquid waste.

**Safe handling of wastes** Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

**Disposal of wastes / methods of disposal** The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

**Contaminated packaging disposal** Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

**14. TRANSPORT INFORMATION**

**DOT**

**UN/Identification No:** NA 1993  
**UN Proper Shipping Name:** Fuel Oil, No. 1  
**Transport Hazard Class(es):** 3  
**Packing Group:** III

**IATA**

**UN/Identification No:** UN 1202  
**UN Proper Shipping Name:** Diesel Fuel  
**Transport Hazard Class(es):** 3

Packing Group: III  
 ERG code: 3L

**IMDG**

UN/Identification No: UN 1202  
 UN Proper Shipping Name: Diesel Fuel  
 Transport Hazard Class(es): 3  
 Packing Group: III  
 EmS No: F-E, S-E  
 Marine Pollutant: Yes

**15. REGULATORY INFORMATION**

Regulatory Information

**US TSCA Chemical Inventory** This product and/or its components are listed on the TSCA Chemical Inventory or are exempt.

**Canada DSL/NDSL Inventory** This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

EPA Superfund Amendment & Reauthorization Act (SARA)

**SARA Section 302** This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List above the de minimis threshold.

**SARA Section 304** This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	Hazardous Substances RQs
Naphthalene 91-20-3	100 lb 45.4 kg

**SARA Section 311/312** The following EPA hazard categories apply to this product:

- Flammable
- Hazard Not Otherwise Classified (HNOC)-Physical
- Skin corrosion or irritation
- Carcinogenicity
- Specific target organ toxicity
- Aspiration hazard

**SARA Section 313** This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting
Naphthalene 91-20-3	0.1 % de minimis concentration

U.S. State Regulations

**California Proposition 65** This product can expose you to chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Name	California Proposition 65
Naphthalene	Carcinogen, initial date 04/19/02

91-20-3	
---------	--

For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**State Right-To-Know Regulations** The following component(s) of this material are identified on the regulatory lists below:

Name	New Jersey Right-To-Know	Pennsylvania Right-To-Know	Massachusetts Right-To-Know
Kerosine (petroleum) 8008-20-6	Listed	Listed	Listed
Naphthalene 91-20-3	Listed	Listed	Listed

## 16. OTHER INFORMATION

**Prepared by** Toxicology & Product Safety

**Revision Notes**

**Revision date** 02/11/2021  
**Previous publish date** 11/06/2017  
**Revised sections** The following sections (§) have been updated:  
1. IDENTIFICATION  
3. COMPOSITION/INFORMATION ON INGREDIENTS  
8. EXPOSURE CONTROLS/PERSONAL PROTECTION  
9. PHYSICAL AND CHEMICAL PROPERTIES  
11. TOXICOLOGICAL INFORMATION  
12. ECOLOGICAL INFORMATION  
14. TRANSPORT INFORMATION  
15. REGULATORY INFORMATION

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



## **3. OPERATIONAL PLAN – AIR EMISSIONS DURING SSM**

---

This emergency generator will be located at 3300 Ammo Rd SE on Kirtland Air Force Base (Kirtland AFB). As soon as a malfunction occurs, the facility will shut down applicable equipment as to ensure no excess emissions or non-permitted emissions are released. The facility will only startup again once it is identified that the malfunction is addressed, and the facility will operate as normal and permitted.

Additional details are provided in this section for each piece of equipment regarding specific steps Kirtland AFB will take should any malfunction occur on site as well as details regarding safety procedures and processes to ensure protection of employees, the general public, and the environment.

### **3.1 Emergency Generator Operational Plan**

#### **3.1.1 Emergency Generator Startup Procedure**

A startup event for a Reciprocating Internal Combustion Engine (RICE) occurs when the unit is initially operated after being off. Kirtland AFB carefully monitors the entire startup process to ensure safety and minimize airborne emissions.

The following actions included in the operational plan are critical for minimizing emissions during startup:

- ▶ Minimizing cold engine startups by ensuring achievement of good combustion.
- ▶ Monitoring the opacity and color of the exhaust gases and taking the unit offline for repairs upon the observation of abnormal soot coming out of the stacks.

#### **3.1.2 Emergency Generator Shutdown Procedure**

A shutdown event for a RICE occurs when the unit is shut down after a period of operation. Kirtland AFB carefully monitors the entire shutdown process to ensure safety and minimize airborne emissions.

The following actions included in the operational plan are critical for minimizing emissions during engine shutdown:

- ▶ Removing the full electrical load from the system and initiating a cool-down cycle before the engine is stopped.
- ▶ Monitoring the opacity and color of the exhaust gases and taking the unit offline for repairs upon the observation of abnormal soot coming out of the stacks.

#### **3.1.3 Emergency Generator Maintenance**

Kirtland AFB ensures the emergency generator RICE is appropriately maintained according to the manufacturer's recommendations. Kirtland AFB carefully monitors the engines to ensure safety and minimize airborne emissions during regularly scheduled maintenance events.

The following actions included in the maintenance operational plan are critical for minimizing emissions during the event:

- ▶ Ensure the engine is achieving good combustion during the maintenance activity;
- ▶ Monitoring the opacity and color of the exhaust gases and taking the unit offline for repairs upon the observation of abnormal soot coming out of the stacks.

## **4. AIR DISPERSION MODELING ANALYSIS**

---

N/A- No modeling is required since the facility consists of an emergency generator.

## 5. 20.11.72 NMAC BACT ANALYSIS

Pursuant to 20.11.72.8 of the Health, Environment and Equity Impacts rule (20.11.72 NMAC), the CABQ EHD AQP department shall require BACT for new or modified stationary sources throughout Bernalillo County that emit any one, or combination of, the following fifteen hazardous air pollutants (HAPs): acetaldehyde, acrolein, benzene, 1,3-butadiene, carbon tetrachloride, ethyl benzene, ethylene oxide, formaldehyde, hydrochloric acid, methyl bromide, methylene chloride, naphthalene, toluene, vinyl chloride, and xylenes.

### 5.1 Definition of BACT

Pursuant to 20.11.72.7.A NMAC, “Best Available Control Technology” (BACT) means the same in 20.11.72 NMAC as it is defined in Subsection M of 20.11.61.7.M NMAC:

“Best available control technology (BACT)” means an emissions limitation ... based on the maximum degree of reduction for each regulated New Source Review (NSR) pollutant which would be emitted from any proposed major stationary source or major modification, which the director on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for controlling such pollutant.

This definition is consistent with federal regulations as codified in 40 CFR 52.21(b)(12) which goes on to define an NSR pollutant to be any pollutant for which a National Ambient Air Quality Standard (NAAQS) has been established, including Volatile Organic Compounds (VOC) as a precursor to ozone emissions.<sup>1</sup> In order to appropriately apply federal guidance and national resources, this facility has used VOC emissions as a surrogate for the HAPs listed within the regulation. VOC is an appropriate surrogate because the listed HAPs also meet the definition of a VOC:

Volatile organic compounds (VOC) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.

The BACT definition goes on to add the following baseline:

In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. Control technologies for VOC specific to natural gas dryers and diesel generators, similar to those at the facility, are listed within the Federal Regulations (40 CFR Parts 60, 61, and 63), Reasonably Available (RACT)/BACT/Lowest Available Emission Rate (LAER) Clearinghouse (RBLC) and EPA published guidance. These resources establish national BACT standards and were reviewed in preparation of this report.

### 5.2 Diesel Generator BACT Strategies

Total HAP emissions from the generator were calculated using AP-42 Table 3.3-2 emission factors, which lists acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, naphthalene, toluene, and xylenes among the HAPs. The best control technologies to reduce VOCs from diesel generators are:

- Good Combustion Practices and Design; Emergency use only; Regular maintenance
- Compliance with 40 CFR 60 Subpart IIII; EPA certified engine
- Compliance with 40 CFR 63 Subpart ZZZZ; Clean Diesel Fuel

## 5. 20.11.72 NMAC BACT ANALYSIS

---

### **5.2.1 Good Combustion Practices and Design**

Good combustion practices and design are essential for reducing emissions of pollutants including VOCs and HAPs which can contribute to smog and impact air quality. VOCs and HAPs can be released when fuel doesn't burn completely, so the goal of good combustion is to ensure efficient, complete burning of natural gas. For this diesel generator, the equipment selected is Tier 4 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII, which minimizes the release of VOCs and HAPs. The certified engine ensures proper mixing of air and fuel to support complete combustion and certifies it will not exceed emissions limits. The unit operates at optimal temperatures and airflow conditions to avoid incomplete burning, which can lead to excess VOC and HAP emissions. Regular maintenance, inspections, and operator training ensure the system stays clean and operates reliably over time.

Additionally, this unit is for emergency use only. It will only be run in cases of extremely rare power outage events as PNM power is extremely reliable (>99%) and the generator will only be started to routinely check for proper function on regular maintenance cycle. The regular maintenance and firing will ensure it operates at optimum efficiency. These design and operational elements work together to ensure the generator emits very low levels of VOCs and HAPs and meets environmental standards.

### **5.2.2 Compliance with 40 CFR 60 Subpart IIII**

This regulation establishes performance standards for stationary compression ignition (CI) internal combustion engines (ICE) that commenced construction after July 11, 2005. Subpart IIII establishes stringent performance standards for these engines, focusing on reducing emissions of VOCs. The engine selected is EPA Tier 4 certified which ensures proper mixing of air and fuel to support complete combustion and certifies it will not exceed emissions limits. The unit operates at optimal temperatures and airflow conditions to avoid incomplete burning, which can lead to excess VOC and HAP emissions. The regulations require the use of advanced emission control technologies, such as closed crankcase ventilation, selective catalytic reduction (SCR), and diesel oxidation catalysts (DOCs), which significantly reduce the formation of VOCs during combustion. Additionally, engines that meet these standards are designed to operate with greater combustion efficiency, ensuring that fuel is burned more completely and producing fewer unburned hydrocarbons that contribute to VOC emissions.

### **5.2.3 Compliance with 40 CFR 63 Subpart ZZZZ; clean fuel, emission filter and testing**

Compliance with 40 CFR 63 Subpart ZZZZ, the MACT (Maximum Achievable Control Technology) standards for stationary engines, is a highly effective way to reduce HAPs emissions, especially from diesel engines. This regulation sets strict limits on emissions of HAPs and requires the use of control technologies to minimize these emissions.

Under MACT ZZZZ, engines must follow best practices for maintenance, use cleaner fuels such as Ultra-low sulfur diesel (ULSD) fuel. For diesel generators, using ULSD fuel is a standard and necessary BACT measure. ULSD has a maximum sulfur content of 15 parts per million (ppm), which drastically reduces sulfur dioxide (SO<sub>2</sub>) and PM emissions. The strategies used above help ensure that the engines burn fuel more completely, releasing fewer unburned hydrocarbons and HAPs. Regular monitoring and testing also ensure compliance with the standards.

## **APPENDIX A. APPLICATION FORMS**

### **A.1 Permit Application Checklist**



# City of Albuquerque Environmental Health Department Air Quality Program



## Construction Permit (20.11.41 NMAC) Application Checklist

**This checklist must be returned with the application**

Any person seeking a new air quality permit, a permit modification, or an emergency permit under 20.11.41 NMAC (Construction Permits) shall do so by filing a written application with the Albuquerque-Bernalillo County Joint Air Quality Program, which administers and enforces local air quality laws for the City of Albuquerque (“City”) and Bernalillo County (“County”), on behalf of the City Environmental Health Department (“Department”).

The Department will rule an application administratively incomplete if it is missing or has incorrect information. The Department may require additional information that is necessary to make a thorough review of an application, including but not limited to technical clarifications, emission calculations, emission factor usage, additional application review fees if any are required by 20.11.2 NMAC, and new or additional air dispersion modeling.

If the Department has ruled an application administratively incomplete three (3) times, the Department will deny the permit application. Any fees submitted for processing an application that has been denied will not be refunded. If the Department denies an application, a person may submit a new application and the fee required for a new application. The applicant has the burden of demonstrating that a permit should be issued.

The following are the minimum elements that shall be included in the permit application before the Department can determine whether an application is administratively complete and ready for technical review. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

At all times before the Department has made a final decision regarding the application, an applicant has a duty to promptly supplement and correct information the applicant has submitted in an application to the Department. The applicant’s duty to supplement and correct the application includes but is not limited to relevant information acquired after the applicant has submitted the application and additional information the applicant otherwise determines is relevant to the application and the Department’s review and decision. While the Department is processing an application, regardless of whether the Department has determined the application is administratively complete, if the Department determines that additional information is necessary to evaluate or make a final decision regarding the application, the Department may request additional information and the applicant shall provide the requested additional information.

**NOTICE REGARDING PERMIT APPEALS:** A person who has applied for or has been issued an air quality permit by the Department shall be an obligatory party to a permit appeal filed pursuant to 20.11.81 NMAC.

**NOTICE REGARDING SCOPE OF A PERMIT:** The Department’s issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant’s/permittee’s responsibility to obtain all other necessary permits from the appropriate agencies, such as the City Planning Department or County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City Planning Department website at <https://www.cabq.gov/planning> and the County Department of Planning and Development Services website at <https://www.bernco.gov/planning>.

**The Applicant shall:**

**20.11.41.13(A) NMAC – Pre-Application Requirements:**

Item	Completed	N/A <sup>1</sup>	Waived <sup>2</sup>
(1) Request a pre-application meeting with the Department using the pre-application meeting request form. Include a copy of the request form submitted to the Department.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Attend the pre-application meeting. Date of pre-application meeting:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pre-application meeting agenda and public notice sign checklists included with application?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. Not Applicable
2. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

**20.11.41.13(B) NMAC – Applicant’s Public Notice Requirements:**

Item	Included in Application	N/A <sup>1</sup>	Waived <sup>2</sup>
(1) Provide public notice in accordance with the regulation, including by certified mail or electronic copy to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Contact list of representative(s) of recognized neighborhood associations and recognized coalitions cannot be more than three months old from the application submittal date.</li> <li>• Include contact list provided by Department in application submittal.</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Provide notice using the Notice of Intent to Construct form and Applicant Notice Cover Letter.</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) In accordance with the regulation, post and maintain in a visible location a weather proof sign provided by the Department. Include pictures in application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documentary proof of all public notice requirements listed above and required by 20.11.41.13(E)(15) included with application?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Not Applicable; For emergency permits, the public notice requirements in 20.11.41.24 NMAC shall apply instead.
2. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

**20.11.41.13(D) NMAC**

Item	Included in Application
A person who is seeking a construction permit pursuant to 20.11.41 NMAC shall complete a permit application and file one complete original and one duplicate copy with the Department.	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>• A high-quality electronic duplicate copy is required by the Department to speed up review and allow for the Department public notice to be posted online. The electronic copy must be an exact duplicate of the hardcopy original, including pages with signatures such as the application certification page. Note: Do not include financial information, such as a copy of a check, in the electronic PDF.</li> </ul>	<input checked="" type="checkbox"/>
The electronic submittal on thumb drive, unless alternate method is allowed by the Department, must also include modeling files, if applicable, and emission calculations file(s) in Microsoft Excel-compatible format.	<input checked="" type="checkbox"/>

**The Permit Application shall include:**

**20.11.41.13(E) NMAC – Application Contents**

Item	Included in Application	N/A <sup>1</sup>	Waived <sup>2</sup>
(1) A complete permit application on the most recent form provided by the Department.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) The application form includes:			
a. The applicant’s name, street and post office address, and contact information;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. The facility owner/ operator’s name, street address and mailing address, if different from the applicant;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The consultant’s name and contact information, if applicable;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. All information requested on the application form is included ( <i>i.e.</i> , the form is complete).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) The date the application was submitted to the Department.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) Sufficient attachments for the following:			
a. Ambient impact analysis using an atmospheric dispersion model approved by the U.S. Environmental Protection Agency, and the Department to demonstrate compliance with the applicable National Ambient Air Quality Standards (NAAQS). <i>See</i> 20.11.1 NMAC. If you are modifying an existing source, the modeling must include the emissions of the entire source to demonstrate the impact the new or modified source(s) will have on existing plant emissions.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The air dispersion model has been executed pursuant to a protocol that was approved in advance by the Department.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Air dispersion modeling approved (or 2 <sup>nd</sup> denied) protocol date:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Basis or source for each emission rate (including manufacturer’s specification sheets, AP-42 section sheets, test data, or corresponding supporting documentation for any other source used).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. All calculations used to estimate potential emission rates and controlled/proposed emissions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Basis for the estimated control efficiencies and sufficient engineering data for verification of the control equipment operation, including if necessary, design, drawing, test report and factors which affect the normal operation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Fuel data for each existing and/or proposed piece of fuel burning equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Anticipated maximum production capacity of the entire facility and the requested production capacity after construction and/or modification.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Stack and exhaust gas parameters for all existing and proposed emission stacks.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(5) An operational and maintenance strategy detailing:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. the steps the applicant will take if a malfunction occurs that may cause emission of a regulated air contaminant to exceed a limit that is included in the permit;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. the nature of emissions during routine startup or shutdown of the source and the source’s air pollution control equipment; and	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. the steps the applicant will take to minimize emissions during routine startup or shutdown.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(6) A map, such as a 7.5’-topographic quadrangle map published by the U.S. Geological Survey or a map of equivalent or greater scale, detail, and precision, including a City or County zone atlas map that shows the proposed location of each process equipment unit involved in the proposed construction, modification, or operation of the source, as applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Item	Included in Application	N/A <sup>1</sup>	Waived <sup>2</sup>
(7) An aerial photograph showing the proposed location of each process equipment unit involved in the proposed construction, modification, relocation or technical revision of the source except for federal agencies or departments involved in national defense or national security as confirmed and agreed to by the Department in writing.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(8) A complete description of all sources of regulated air contaminants and a process flow diagram depicting the process equipment unit or units at the facility, both existing and proposed, that are proposed to be involved in routine operations and from which regulated air contaminant emissions are expected to be emitted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(9) A full description of air pollution control equipment, including all calculations and the basis for all control efficiencies presented, manufacturer's specifications sheets, and site layout and assembly drawings; UTM (universal transverse mercator) coordinates shall be used to identify the location of each emission unit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(10) A description of the equipment or methods proposed by the applicant to be used for emission measurement.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(11) The maximum and normal operating time schedules of the source after completion of construction or modification, as applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(12) Any other relevant information as the Department may reasonably require, including without limitation:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Provide an applicability determination for all potentially applicable federal regulations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Applicants shall provide documentary proof that the proposed air quality permitted use of the facility's subject property is allowed by the zoning designation of the City or County zoning laws, as applicable. Sufficient documentation includes: (i) a zoning certification from the City Planning Department or County Department of Planning and Development Services, as applicable, if the property is subject to City or County zoning jurisdiction; or (ii) a zoning verification from both planning departments if the property is not subject to City or County zoning jurisdiction. <sup>3</sup> A zone atlas map shall not be sufficient.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Compliance History Disclosure Form <sup>4</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. BACT Analysis, if applicable, for new permit or permit modification applications.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(13) The signature of the applicant, operator, owner or an authorized representative, certifying to the accuracy of all information as represented in the application and attachments, if any.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(14) A check or money order for the appropriate application fee or fees required by 20.11.2 NMAC, <i>Fees</i> . (Online fee payments are now accepted as well. Application must be submitted first, then Department will provide invoice for online payment.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Not Applicable

2. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

3. Applicants are not required to submit documentation for the subject property's zoning designation when applying for a relocation of a portable stationary source, or a technical or administrative revision to an existing permit.

4. Required for applications filed pursuant to the following regulations: Construction Permits (20.11.41 NMAC); Operating Permits (20.11.42 NMAC); Nonattainment Areas (20.11.60 NMAC); Prevention of Significant Deterioration (20.11.61 NMAC); and Acid Rain (20.11.62 NMAC); except this Form shall not be required for asbestos notifications under 20.11.20.22 NMAC, and this Form shall only be required for administrative permit revision (20.11.41.28(A) NMAC) and administrative permit amendments (20.11.42.12(E)(1) NMAC) when the action requested is a transfer of ownership. Air Quality Program staff can answer basic questions about the Compliance History Disclosure Form but will not provide specific advice about which boxes to check or whether information must be disclosed. The decision about how to answer a question and whether there is information to disclose is the responsibility of applicants/permittees.

## **A.2 Pre-Application Checklist**

## **A.3 Permit Application Review Fees Form**



**City of Albuquerque  
Environmental Health Department  
Air Quality Program**



**Permit Application Review Fee Checklist Instructions**

All source registration and construction permit applications for stationary or portable sources shall be charged an application review fee according to the fee schedule in 20.11.2 NMAC. These filing fees are required for both new construction, reconstruction, and permit modification/revision applications. Most air quality notification (AQN) applications shall be charged an application review fee according to 20.11.39 NMAC. Qualified small businesses as defined in 20.11.2 NMAC may be eligible to pay one-half of the application review fees and 100% of all applicable federal program review fees.

Please fill out the permit application review fee checklist completely and submit with a check or money order payable to the “City of Albuquerque Fund 242” and:

1. Deliver it in person to the Albuquerque Environmental Health Department, 3<sup>rd</sup> floor, Room 3023, Albuquerque-Bernalillo County Government Center, south building, One Civic Plaza NW, Albuquerque, NM 87102; or
2. Mail it to Albuquerque Environmental Health Department, Air Quality Program, Permitting Division, P.O. Box 1293, Albuquerque, NM 87103; or
3. Online fee payments are now accepted as well. Application must be submitted first, then Department will provide invoice for online payment. Fill out form completely and mark check box below fee amount due on last page to request an invoice to pay the fee online.

The Department will provide a receipt of payment to the applicant. The person delivering or filing a submittal shall attach a copy of the receipt of payment to the submittal as proof of payment. Application review fees shall not be refunded without the written approval of the manager. If a refund is requested, a reasonable professional service fee to cover the costs of staff time involved in processing such requests shall be assessed. Please refer to 20.11.2 NMAC (effective January 10, 2011) for more detail concerning the “Fees” regulation as this checklist does not relieve the applicant from any applicable requirement of the regulation.



**City of Albuquerque  
Environmental Health Department  
Air Quality Program**



## Permit Application Review Fee Checklist Instructions

All source registration and construction permit applications for stationary or portable sources shall be charged an application review fee according to the fee schedule in 20.11.2 NMAC. These filing fees are required for both new construction, reconstruction, and permit modification/revision applications. Most air quality notification (AQN) applications shall be charged an application review fee according to 20.11.39 NMAC. Qualified small businesses as defined in 20.11.2 NMAC may be eligible to pay one-half of the application review fees and 100% of all applicable federal program review fees.

Please fill out the permit application review fee checklist completely and submit with a check or money order payable to the “City of Albuquerque Fund 242” and:

1. Deliver it in person to the Albuquerque Environmental Health Department, 3<sup>rd</sup> floor, Room 3023, Albuquerque-Bernalillo County Government Center, south building, One Civic Plaza NW, Albuquerque, NM 87102; or
2. Mail it to Albuquerque Environmental Health Department, Air Quality Program, Permitting Division, P.O. Box 1293, Albuquerque, NM 87103; or
3. Online fee payments are now accepted as well. Application must be submitted first, then Department will provide invoice for online payment. Fill out form completely and mark check box below fee amount due on last page to request an invoice to pay the fee online.

The Department will provide a receipt of payment to the applicant. The person delivering or filing a submittal shall attach a copy of the receipt of payment to the submittal as proof of payment. Application review fees shall not be refunded without the written approval of the manager. If a refund is requested, a reasonable professional service fee to cover the costs of staff time involved in processing such requests shall be assessed. Please refer to 20.11.2 NMAC (effective January 10, 2011) for more detail concerning the “Fees” regulation as this checklist does not relieve the applicant from any applicable requirement of the regulation.



**City of Albuquerque  
Environmental Health Department  
Air Quality Program**



**Permit Application Review Fee Checklist Effective January 1, 2026 – December 31, 2026**

Please completely fill out the information in each section. Incompleteness of this checklist may result in the Albuquerque Environmental Health Department not accepting the application review fees. If you have any questions concerning this checklist, please call (505) 768-1972.

**I. COMPANY INFORMATION:**

<b>Company Name</b>	U.S. Air Force - Kirtland Air Force Base		
<b>Company Address</b>	377 MSG/ CEIEC, 2050 Wyoming Boulevard SE, Suite A-112A Kirtland AFB, NM 87117-5270		
<b>Facility Name</b>	Building 737 Administration Facility, 377 MXS		
<b>Facility Address</b>	3300 Ammo Road SE, Kirtland AFB		
<b>Contact Person</b>	Isreal Tavarez, Chief of Environmental Management		
<b>Contact Person Phone Number</b>	(505) 846-8546	<b>Email</b>	isreal.tavarez@us.af.mil
<b>Are these application review fees for an existing permitted source located within the City of Albuquerque or Bernalillo County?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>If yes, what is the current permit/registration/AQN number for this facility?</b>	Permit #		
<b>Is this application review fee for a Qualified Small Business as defined in 20.11.2 NMAC? (See Definition of Qualified Small Business on Page 4)</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**II. STATIONARY SOURCE APPLICATION REVIEW FEES:**

If the application is for a new stationary source facility, please check all that apply. If this application is for a modification to an existing permit please see Section III. For revisions or relocations please see Sections IV or V.

Check All That Apply	Stationary Sources	Review Fee	Program Element
<b>Air Quality Notifications</b>			
<input type="checkbox"/>	AQN New Application	\$720.00	2801
<input type="checkbox"/>	AQN Technical Amendment	\$393.00	2802
<input type="checkbox"/>	AQN Transfer of a Prior Authorization	\$393.00	2803
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
<b>Stationary Source Review Fees (Not Based on Proposed Allowable Emission Rate)</b>			
<input type="checkbox"/>	Source Registration required by 20.11.40 NMAC	\$734.00	2401
<input checked="" type="checkbox"/>	A Stationary Source that requires a permit pursuant to 20.11.41 NMAC or other board regulations and are not subject to the below proposed allowable emission rates	\$1,467.00	2301
<input type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
<b>Stationary Source Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)</b>			
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 1 tpy and less than 5 tpy	\$1,101.00	2302
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 5 tpy and less than 25 tpy	\$2,201.00	2303
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 25 tpy and less than 50 tpy	\$4,402.00	2304
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 50 tpy and less than 75 tpy	\$6,603.00	2305
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 75 tpy and less than 100 tpy	\$8,804.00	2306
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 100 tpy	\$11,005.00	2307

<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
-------------------------------------	-----------------------	---------------------------	--

<b>Federal Program Review Fees for each subpart (In addition to the Stationary Source Application Review Fees above)</b>			
<input checked="" type="checkbox"/>	40 CFR 60 – “New Source Performance Standards” (NSPS)	\$1,467.00	2308
<input type="checkbox"/>	40 CFR 61 – “National Emission Standards for Hazardous Air Pollutants” (NESHAPs)	\$1,467.00	2309
<input checked="" type="checkbox"/>	40 CFR 63 – (NESHAPs) Promulgated Standards	\$1,467.00	2310
<input type="checkbox"/>	20.11.64 – (NESHAPs) Case-by-Case MACT Review (Major HAP sources)	\$14,674.00	2311
<input type="checkbox"/>	20.11.61 NMAC – Prevention of Significant Deterioration (PSD) Permit	\$7,337.00	2312
<input type="checkbox"/>	20.11.60 NMAC – Non-Attainment Area Permit	\$7,337.00	2313
<input type="checkbox"/>	<i>Not Applicable</i>	<i>Not Applicable</i>	

### III. MODIFICATION TO EXISTING PERMIT APPLICATION REVIEW FEES:

If the application is for a modification to an existing permit, please check all that apply. If this application is for a new stationary source facility, please see Section II. For revisions or relocations please see Sections IV or V.

Check All That Apply	Modifications	Review Fee	Program Element
<b>Modification Application Review Fees (Not Based on Proposed Allowable Emission Rate)</b>			
<input type="checkbox"/>	Proposed modification to an existing Source Registration required by 20.11.40 NMAC	\$734	2401
<input type="checkbox"/>	Proposed modification to an existing stationary source that requires a permit pursuant to 20.11.41 NMAC or other board regulations and are not subject to the below proposed allowable emission rates	\$1,467	2321
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
<b>Modification Application Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)</b>			
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 1 tpy and less than 5 tpy	\$1,101.00	2322
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 5 tpy and less than 25 tpy	\$2,201.00	2323
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 25 tpy and less than 50 tpy	\$4,402.00	2324
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 50 tpy and less than 75 tpy	\$6,603.00	2325
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 75 tpy and less than 100 tpy	\$8,804.00	2326
<input type="checkbox"/>	Proposed Allowable Emission Rate equal to or greater than 100 tpy	\$11,005.00	2327
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
<b>Major Modifications Review Fees (In addition to the Modification Application Review Fees above)</b>			
<input type="checkbox"/>	20.11.60 NMAC – Permitting in Non-Attainment Areas	\$7,337.00	2333
<input type="checkbox"/>	20.11.61 NMAC – Prevention of Significant Deterioration	\$7,337.00	2334
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>Not Applicable</i>	
<b>Federal Program Review Fees for each subpart (This section applies only if a Federal Program Review is triggered by the proposed modification) (These fees are in addition to the Modification and Major Modification Application Review Fees above)</b>			
<input type="checkbox"/>	40 CFR 60 – “New Source Performance Standards” (NSPS)	\$1,467.00	2328
<input type="checkbox"/>	40 CFR 61 – “National Emission Standards for Hazardous Air Pollutants” (NESHAPs)	\$1,467.00	2329
<input type="checkbox"/>	40 CFR 63 – (NESHAPs) Promulgated Standards	\$1,467.00	2330
<input type="checkbox"/>	20.11.64 – (NESHAPs) Case-by-Case MACT Review (Major HAP sources)	\$14,674.00	2331
<input type="checkbox"/>	20.11.61 NMAC – Prevention of Significant Deterioration (PSD) Permit	\$7,337.00	2332
<input type="checkbox"/>	20.11.60 NMAC – Non-Attainment Area Permit	\$7,337.00	2333
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>Not Applicable</i>	

**IV. ADMINISTRATIVE AND TECHNICAL REVISION APPLICATION REVIEW FEES:**

If the application is for an administrative or technical revision of an existing permit issued pursuant to 20.11.40 or 20.11.41 NMAC, please check one that applies.

Check One	Revision Type	Review Fee	Program Element
<input type="checkbox"/>	Administrative Revisions	\$250.00	2340
<input type="checkbox"/>	Technical Revisions	\$500.00	2341
<input type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections II, III or V</i>	

**V. PORTABLE STATIONARY SOURCE RELOCATION FEES:**

If the application is for a portable stationary source relocation of an existing permit, please check one that applies.

Check One	Portable Stationary Source Relocation Type	Review Fee	Program Element
<input type="checkbox"/>	No New Air Dispersion Modeling Required	\$500.00	2501
<input type="checkbox"/>	New Air Dispersion Modeling Required	\$750.00	2502
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections II, III or IV</i>	

**VI. Please submit payment in the amount shown for the total application review fee.**

Section Totals	Review Fee Amount
Section II Total	\$4,401.00
Section III Total	\$
Section IV Total	\$
Section V Total	\$
<b>Total Application Review Fee</b>	<b>\$4,401.00</b>

Check here if an invoice is requested so Application Review Fee can be paid online.

I, the undersigned, a responsible officer of the applicant company, certify that to the best of my knowledge, the information stated on this checklist gives a true and complete representation of the permit application review fees which are being submitted. I also understand that an incorrect submittal of permit application reviews may cause an incompleteness determination of the submitted permit application and that the balance of the appropriate permit application review fees shall be paid in full prior to further processing of the application.

Signed this 21 day of January, 2026

JUSTIN D. SECREST, Colonel, USAF  
Print Name

Commander, 377th Air Base Wing  
Print Title

SECRET.JUSTIN.D.1078  
711082  
Signature

Digitally signed by  
SECRET.JUSTIN.D.1078711082  
Date: 2026.01.21 10:07:46 -07'00'

**Definition of Qualified Small Business** as defined in 20.11.2 NMAC:

“Qualified small business” means a business that meets all of the following requirements:

- (1) a business that has 100 or fewer employees;
- (2) a small business concern as defined by the federal Small Business Act;
- (3) a source that emits less than 50 tons per year of any individual regulated air pollutant, or less than 75 tons per year of all regulated air pollutants combined; and
- (4) a source that is not a major source or major stationary source.

**Note:** Beginning January 1, 2011, and every January 1 thereafter, an increase based on the consumer price index shall be added to the application review fees. The application review fees established in Subsection A through D of 20.11.2.18 NMAC shall be adjusted by an amount equal to the increase in the consumer price index for the immediately-preceding year. Application review fee adjustments equal to or greater than fifty cents (\$0.50) shall be rounded up to the next highest whole dollar. Application review fee adjustments totaling less than fifty cents (\$0.50) shall be rounded down to the next lowest whole dollar. The department shall post the application review fees on the city of Albuquerque environmental health department air quality program website.

## A.4 Permit Application Form



**City of Albuquerque – Environmental Health Department  
Air Quality Program**



Please mail this application to P.O. Box 1293, Albuquerque, NM 87103  
or hand deliver between 8:00 am – 5:00 pm Monday – Friday to:  
3rd Floor, Suite 3023 – One Civic Plaza NW, Albuquerque, NM 87102  
(505) 768-1972 aqd@cabq.gov

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Submittal Date: 2 Feb 2026

**Owner/Corporate Information**  Check here and leave this section blank if information is exactly the same as Facility Information below.

Company Name: <b>U.S. Air Force - Kirtland Air Force Base (KAFB)</b>			
Mailing Address: <b>377MSG/CEIEC,2050 Wyoming Blvd SE, Ste A-112</b>	City: <b>Kirtland AFB</b>	State: <b>NM</b>	Zip: <b>87117-5270</b>
Company Phone: <b>(505) 846-8546</b>	Company Contact: <b>Isreal L. Tavarez</b>		
Company Contact Title: <b>Chief, Environmental Management</b>	Phone: <b>(505) 846-8546</b>	E-mail: <b>isreal.tavarez@us.af.mil</b>	

**Stationary Source (Facility) Information:** Provide a plot plan (legal description/drawing of the facility property) with overlay sketch of facility processes, location of emission points, pollutant type, and distances to property boundaries.

Facility Name: <b>Building 737 Administration Facility, 377 MXS</b>			
Facility Physical Address: <b>3300 Ammo Road SE</b>	City: <b>Kirtland AFB</b>	State: <b>NM</b>	Zip: <b>87117</b>
Facility Mailing Address (if different):	City:	State:	Zip:
Facility Contact: <b>Isreal L. Tavarez</b>	Title: <b>Chief, Environmental Management</b>		
Phone: <b>(505) 846-8546</b>	E-mail: <b>isreal.tavarez@us.af.mil</b>		
Authorized Representative Name <sup>1</sup> : <b>Isreal L. Tavarez</b>	Authorized Representative Title: <b>Chief, Environmental Management</b>		

**Billing Information**  Check here if same contact and mailing address as corporate  Check here if same as facility

Billing Company Name: <b>U.S. Air Force - Kirtland Air Force Base (KAFB)</b>			
Mailing Address: <b>377MSG/CEIEC,2050 Wyoming Blvd SE, Ste A-106</b>	City: <b>Kirtland, AFB</b>	State: <b>NM</b>	Zip: <b>87117-5270</b>
Billing Contact: <b>Carina G. Munoz-Dyer</b>	Title: <b>Program Manager</b>		
Phone: <b>(505) 846-8781</b>	E-mail: <b>carina.munoz-dyer@us.af.mil</b>		

**Preparer/Consultant(s) Information**  Check here and leave section blank if no Consultant used or Preparer is same as Facility Contact.

Name: <b>Jon C. Anthony, PE</b>	Title: <b>Principal Engineer</b>		
Mailing Address: <b>1409 Ortiz Drive SE</b>	City: <b>Albuquerque</b>	State: <b>NM</b>	Zip: <b>87108</b>
Phone: <b>(505) 338-7092</b>	Email: <b>jon@qaengineering.com</b>		

1. See 20.11.41.13(E)(13) NMAC.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**General Operation Information (if any question does not pertain to your facility, type N/A on the line or in the box)**

Permitting action being requested (please refer to the definitions in 20.11.40 NMAC or 20.11.41 NMAC):				
<input checked="" type="checkbox"/> New Permit	<input type="checkbox"/> Permit Modification Current Permit #: <b>N/A</b>	<input type="checkbox"/> Technical Permit Revision Current Permit #: <b>N/A</b>	<input type="checkbox"/> Administrative Permit Revision Current Permit #: <b>N/A</b>	
<input type="checkbox"/> New Registration Certificate	<input type="checkbox"/> Modification Current Reg. #: <b>N/A</b>	<input type="checkbox"/> Technical Revision Current Reg. #: <b>N/A</b>	<input type="checkbox"/> Administrative Revision Current Reg. #: <b>N/A</b>	
UTM coordinates of facility (Zone 13, NAD 83): <b>355177 E; 3878167 N</b>				
Facility type ( <i>i.e.</i> , a description of your facility operations): <b>Administration Control Air Force Base/Emergency Generator</b>				
Standard Industrial Classification (SIC Code #): <b>9711</b>		North American Industry Classification System ( <u>NAICS Code #</u> ): <b>928110</b>		
Is this facility currently operating in Bernalillo County? <b>No</b>		If <b>YES</b> , list date of original construction: If <b>NO</b> , list date of planned startup: <b>04/2026</b>		
Is the facility permanent? <b>Yes</b>		If <b>NO</b> , list dates for requested temporary operation: From                      Through		
Is the facility a portable stationary source? <b>No</b>		If <b>YES</b> , is the facility address listed above the main permitted location for this source?		
Is the application for a physical or operational change, expansion, or reconstruction ( <i>e.g.</i> , altering process, or adding, or replacing process or control equipment, etc.) to an existing facility? <b>Yes</b>				
Provide a description of the requested changes: <b>Adding a stand-by emergency generator to an existing facility operation</b>				
What is the facility's operation? <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Batch				
Estimated percent of production/operation:	Jan-Mar: <b>100%</b>	Apr-Jun: <b>100%</b>	Jul-Sep: <b>100%</b>	Oct-Dec: <b>100%</b>
Requested operating times of facility:	<b>24 hours/day</b>	<b>7 days/week</b>	<b>4 weeks/month</b>	<b>12 months/year</b>
Will there be special or seasonal operating times other than shown above? This includes monthly- or seasonally-varying hours. <b>Yes</b>				
If <b>YES</b> , please explain: <b>Emergency Operation limited to 100 hours/year</b>				
List raw materials processed: <b>N/A - Application is for construction of a new stand-by emergency generator</b>				
List saleable item(s) produced: <b>N/A - Application is for construction of a new stand-by emergency generator</b>				

USE INSTRUCTIONS: For the forms on the following pages, please do not alter or delete the existing footnotes or page breaks. If additional footnotes are needed then add them to the end of the existing footnote list for a given table. Only update the rows and cells within tables as necessary for your project. Unused rows can be deleted from tables. If multiple scenarios will be represented then the Uncontrolled and Controlled Emission Tables, and other tables as needed, can be duplicated and adjusted to indicate the different scenarios.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Regulated Emission Sources Table**

(E.g., Generator-Crusher-Screen-Conveyor-Boiler-Mixer-Spray Guns-Saws-Sander-Oven-Dryer-Furnace-Incinerator-Haul Road-Storage Pile, etc.) Match the Units listed on this Table to the same numbered line if also listed on Emissions Tables & Stack Table.

Unit Number and Description <sup>1</sup>	Manufacturer	Model #	Serial #	Manufacture Date	Installation Date	Modification Date <sup>2</sup>	Process Rate or Capacity (Hp, kW, Btu, ft <sup>3</sup> , lbs, tons, yd <sup>3</sup> , etc.) <sup>3</sup>	Fuel Type
Ex. 1. Generator	Unigen	B-2500	A567321C	7/1996	7/1997	11/2020	250 Hp/HR	Diesel
1 Emergency Generator AQUIS ID 19195	Kubota	D1703M	TBD	TBD	N/A	N/A	27 HP/20 kW	Diesel
							/	
							/	
							/	
							/	
							/	
							/	
							/	
							/	
							/	
							/	

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

- Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.
- To determine whether a unit has been modified, evaluate if changes have been made to the unit that impact emissions or that trigger modification as defined in 20.11.41.7(U) NMAC. If not, put N/A.
- Basis for Equipment Process Rate or Capacity (e.g., Manufacturer’s Data, Field Observation/Test, etc.) \_\_\_\_\_  
Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Emissions Control Equipment Table**

Control Equipment Units listed on this Table should either match up to the same Unit number as listed on the Regulated Emission Sources, Controlled Emissions and Stack Parameters Tables (if the control equipment is integrated with the emission unit) or should have a distinct Control Equipment Unit Number and that number should then also be listed on the Stack Parameters Table.

Control Equipment Unit Number and Description	Controlling Emissions for Unit Number(s)	Manufacturer	Model #   Serial #	Date Installed	Controlled Pollutant(s)	% Control Efficiency <sup>1</sup>	Method Used to Estimate Efficiency	Rated Process Rate or Capacity or Flow
Ex. 8b Baghouse	3,4,5	Best Baghouses	C-12010   A16925	11/12/2019	PM <sub>10</sub> , PM <sub>2.5</sub>	99%	Manufacturer's Data	1,500 ACFM
<b>N/A – There is no Control Equipment</b>	<b><u>N/A</u></b>	<b><u>N/A</u></b>	<b><u>N/A</u>  </b>	<b><u>N/A</u></b>	<b><u>N/A</u></b>	<b><u>N/A</u></b>	<b><u>N/A</u></b>	<b><u>N/A</u></b>

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Control Equipment % Efficiency (e.g., Manufacturer's Data, Field Observation/Test, AP-42, etc.). **N/A**  
Submit information for each unit as an attachment.



**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Uncontrolled Emissions Table**

(Process potential under physical/operational limitations during a 24 hr/day and 365 day/year = 8760 hrs)

Regulated Emission Units listed on this Table should match up to the same numbered line and Unit as listed on the Regulated Emissions and Controlled Tables. List total HAP values per Emission Unit if overall HAP total for the facility is  $\geq 1$  ton/yr.

Unit Number*	Nitrogen Oxides (NO <sub>x</sub> )		Carbon Monoxide (CO)		Nonmethane Hydrocarbons/Volatile Organic Compounds (NMHC/VOCs)		Sulfur Dioxide (SO <sub>2</sub> )		Particulate Matter $\leq 10$ Microns (PM <sub>10</sub> )		Particulate Matter $\leq 2.5$ Microns (PM <sub>2.5</sub> )		Hazardous Air Pollutants (HAPs)		Method(s) used for Determination of Emissions (AP-42, Material Balance, Field Tests, etc.)
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	
Emergency Generator AQUIS ID 19195	0.32	1.38	0.29	1.30	0.02	0.07	0.06	0.24	0.02	0.08	0.02	0.08	0.001	0.00428	AP-42 Section 3.3-1 and Section 3.3-2, 40 CFR 60 NSPS Tier 4
Totals of Uncontrolled Emissions	0.32	1.38	0.29	1.30	0.02	0.07	0.06	0.24	0.02	0.08	0.02	0.08	0.001	0.00428	

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

\*A permit is required and this application along with the additional checklist information requested on the Permit Application checklist must be provided if:

- (1) any one of these process units or combination of units, has an uncontrolled emission rate greater than or equal to ( $\geq$ ) 10 lbs/hr or 25 tons/yr for any of the above pollutants, excluding HAPs, based on 8,760 hours of operation; or
- (2) any one of these process units or combination of units, has an uncontrolled emission rate  $\geq 2$  tons/yr for any single HAP or  $\geq 5$  tons/yr for any combination of HAPs based on 8,760 hours of operation; or
- (3) any one of these process units or combination of units, has an uncontrolled emission rate  $\geq 5$  tons/yr for lead (Pb) or any combination of lead and its compounds based on 8,760 hours of operation; or
- (4) any one of the process units or combination of units is subject to an Air Board or federal emission limit or standard.

\* If all of these process units, individually and in combination, have an uncontrolled emission rate less than ( $<$ ) 10 lbs/hr or 25 tons/yr for all of the above pollutants (based on 8,760 hours of operation), but  $> 1$  ton/yr for any of the above pollutants, then a source registration is required. A Registration is required, at minimum, for any amount of HAP emissions. Please complete the remainder of this form.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Controlled Emissions Table**

(Based on current operations with emission controls OR requested operations with emission controls)

Regulated Emission Units listed on this Table should match up to the same numbered line and Unit as listed on the Regulated Emissions and Uncontrolled Tables. List total HAP values per Emission Unit if overall HAP total for the facility is  $\geq 1$  ton/yr.

Unit Number	Nitrogen Oxides (NO <sub>x</sub> )		Carbon Monoxide (CO)		Nonmethane Hydrocarbons/Volatile Organic Compounds (NMHC/VOCs)		Sulfur Dioxide (SO <sub>2</sub> )		Particulate Matter $\leq 10$ Microns (PM <sub>10</sub> )		Particulate Matter $\leq 2.5$ Microns (PM <sub>2.5</sub> )		Hazardous Air Pollutants (HAPs)		Control Method	% Efficiency <sup>1</sup>
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr		
Emergency Generator AQUIS ID 19195	0.32	0.016	0.29	0.015	0.02	0.0008	0.06	0.0028	0.02	9.0E-04	0.06	9.0E-04	0.001	4.9E-05	Operating Hours	N/A
Totals of Controlled Emissions	0.32	0.016	0.29	0.015	0.02	0.0008	0.06	0.0028	0.02	9.0E-04	0.06	9.0E-04	0.001	4.9E-05		

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Control Method % Efficiency (e.g., Manufacturer's Data, Field Observation/Test, AP-42, etc.). EPA Tier 4 Emission Factors, Manufacturer Specification, AP-42, CARB NOx/NMHC fraction Table D-25.

Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Hazardous Air Pollutants (HAPs) Emissions Table**

Report the Potential Emission Rate for each HAP from each source on the Regulated Emission Sources Table that emits a given HAP. Report individual HAPs with  $\geq 1$  ton/yr total emissions for the facility on this table. Otherwise, report total HAP emissions for each source that emits HAPs and report individual HAPs in the accompanying application package in association with emission calculations. If this application is for a Registration solely due to HAP emissions, report the largest HAP emissions on this table and the rest, if any, in the accompanying application package.

Unit Number	Total HAPs		Benzene		Toluene		Xylenes		1,3-Butadiene		Formaldehyde		Propylene		Acetaldehyde		Acrolein		Napthalene	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Emergency Generator AQIS ID 19195	0.001	4.9E-05	0.00014	7.2E-06	6.3E-05	3.1E-06	4.4E-05	2.2E-06	6.0E-06	3.0E-07	1.8E-04	9.1E-06	4.0E-04	2.0E-05	1.2E-04	5.9E-06	1.4E-05	7.1E-07	1.3E-05	6.5E-07
Totals of HAPs for all units:	0.001	4.9E-05	0.00014	7.2E-06	6.3E-05	3.1E-06	4.4E-05	2.2E-06	6.0E-06	3.0E-07	1.8E-04	9.1E-06	4.0E-04	2.0E-05	1.2E-04	5.9E-06	1.4E-05	7.1E-07	1.3E-05	6.5E-07

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

Use Instructions: Copy and paste the HAPs table here if need to list more individual HAPs.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Purchased Hazardous Air Pollutant Table\***

Product Categories (Coatings, Solvents, Thinners, etc.)	Hazardous Air Pollutant (HAP), or Volatile Hazardous Air Pollutant (VHAP) Primary To The Representative As Purchased Product	Chemical Abstract Service (CAS) Number of HAP or VHAP from Representative As Purchased Product	HAP or VHAP Concentration of Representative As Purchased Product (pounds/gallon, or %)	Concentration Determination (CPDS, SDS, etc.) <sup>1</sup>	Total Product Purchases For Category	(-)	Quantity of Product Recovered & Disposed For Category	(=)	Total Product Usage For Category
N/A – This facility does not purchase any direct hazardous air pollutant source material									
1.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
2.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
3.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
4.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
5.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
6.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
7.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
8.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
9.					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr
TOTALS					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

NOTE: Product purchases, recovery/disposal and usage should be converted to the units listed in this table. If units cannot be converted please contact the Air Quality Program prior to making changes to this table.

1. Submit, as an attachment, information on one (1) product from each Category listed above which best represents the average of all the products purchased in that Category. CPDS = Certified Product Data Sheet; SDS = Safety Data Sheet

**\* A Registration is required, at minimum, for any amount of HAP or VHAP emission.**

**Emissions from purchased HAP usage should be accounted for on previous tables as appropriate.**

**A permit may be required for these emissions if the source meets the requirements of 20.11.41 NMAC.**

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Material and Fuel Storage Table**

*(E.g., Tanks, barrels, silos, stockpiles, etc.)*

Storage Equipment		Product Stored	Capacity (bbls, tons, gals, acres, etc.)	Above or Below Ground	Construction (Welded, riveted) & Color	Installation Date	Loading Rate <sup>1</sup>	Offloading Rate <sup>1</sup>	True Vapor Pressure	Control Method	Seal Type	% Eff. <sup>2</sup>
Emergency Generator AQUIS ID 19195	Belly Tank	Diesel Fuel	91 gal	Above	Black Welded Steel	TBD	Tank Fueled Directly from a Truck	1.12 gal/hr	N/A	N/A	N/A	N/A

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Loading/Offloading Rate (*e.g.*, Manufacturer’s Data, Field Observation/Test, etc.). **Manufacturer’s Data**  
Submit information for each unit as an attachment.
2. Basis for Control Method % Efficiency (*e.g.*, Manufacturer’s Data, Field Observation/Test, AP-42, etc.). **N/A**  
Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Stack Parameters Table**

If any equipment from the Regulated Emission Sources Table is also listed in this Stack Table, use the same numbered line for the emission unit on both tables to show the association between the Process Equipment and its stack.

Unit Number and Description		Pollutant (CO, NOx, PM <sub>10</sub> , etc.)	UTM Easting (m)	UTM Northing (m)	Stack Height (ft)	Stack Exit Temp. (°F)	Stack Velocity (fps)	Stack Flow Rate (acfm)	Stack Inside Diameter (ft)	Stack Type
Emergency Generator AQUIS ID 19195	Emergency Generator	NOx,CO,VOC, SO2,PM10, PM2.5,HAPs	355177	3878167	0.33	688	75	99	.16	Rain Cap

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

**Application for Air Pollutant Sources in Bernalillo County  
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

**Certification**

**NOTICE REGARDING SCOPE OF A PERMIT:** The Environmental Health Department's issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant's/permittee's responsibility to obtain all other necessary permits from the appropriate agencies, such as the City of Albuquerque Planning Department or Bernalillo County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City of Albuquerque Planning Department website at <https://www.cabq.gov/planning> and the Bernalillo County Department of Planning and Development Services website at <https://www.bernco.gov/planning>.

**NOTICE REGARDING ACCURACY OF INFORMATION AND DATA SUBMITTED:** Any misrepresentation of a material fact in this application and its attachments is cause for denial of a permit or revocation of part or all of the resulting registration or permit, and revocation of a permit for cause may limit the permittee's ability to obtain any subsequent air quality permit for ten (10) years. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under the Air Quality Control Act, NMSA 1978 §§ 74-2-1 to 74-2-17, is guilty of a misdemeanor and shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per day per violation or by imprisonment for not more than twelve months, or by both.

I, the undersigned, hereby certify that I have knowledge of the information and data represented and submitted in this application and that the same is true and accurate, including the information and data in any and all attachments, including without limitation associated forms, materials, drawings, specifications, and other data. I also certify that the information represented gives a true and complete portrayal of the existing, modified existing, or planned new stationary source with respect to air pollution sources and control equipment. I understand that there may be significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. I also understand that the person who has applied for or has been issued an air quality permit by the Department is an obligatory party to a permit appeal filed pursuant to 20.11.81 NMAC. Further, I certify that I am qualified and authorized to file this application, to certify the truth and accuracy of the information herein, and bind the source. Moreover, I covenant and agree to comply with any requests by the Department for additional information necessary for the Department to evaluate or make a final decision regarding the application.

Signed this 21 day of Jan, 2026

**JUSTIN D. SECREST, Colonel, USAF**

Print Name

**Commander, 377th Air Base Wing**

Print Title

**SECREST.JUSTIN**  
**.D.1078711082**

Signature

Digitally signed by  
SECREST.JUSTIN.D.1078711082  
Date: 2026.01.21 10:06:26 -0700'

Role:  Owner  Operator

Other Authorized Representative

## **APPENDIX B. NOTICE OF INTENT TO CONSTRUCT**

---

### **B.1 Notice of Intent Cover Letter**

**SUBJECT: Public Notice of Proposed Air Quality Construction Permit Application KAFB MUNS Emergency Generator**

Dear Neighborhood Association/Coalition Representative(s),

***Why did I receive this public notice?***

You are receiving this notice in accordance with New Mexico Administrative Code (NMAC) 20.11.41.13.B(1) which requires any applicant seeking an Air Quality Construction Permit pursuant to 20.11.41 NMAC to provide public notice by certified mail or electronic mail to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.

***What is the Air Quality Permit application review process?***

The City of Albuquerque, Environmental Health Department, Air Quality Program (Program) is responsible for the review and issuance of Air Quality Permits for any stationary source of air contaminants within Bernalillo County. Once the application is received, the Program reviews each application and rules it either complete or incomplete. Complete applications will then go through a 30-day public comment period. Within 90 days after the Program has ruled the application complete, the Program shall issue the permit, issue the permit subject to conditions, or deny the requested permit or permit modification. The Program shall hold a Public Information Hearing pursuant to 20.11.41.15 NMAC if the Director determines there is significant public interest and a significant air quality issue is involved.

***What do I need to know about this proposed application?***

Applicant Name	U.S. Air Force – Kirtland Air Force Base
Site or Facility Name	B.737 MUNS Admin 377 MXS
Site or Facility Address	3300 Ammo Rd SE, Kirtland AFB, NM 87117
New or Existing Source	NEW
Anticipated Date of Application Submittal	February 2, 2026
Summary of Proposed Source to Be Permitted	This is an Authority to Construct application to permit a new emergency generator. The purpose of the new unit is to provide backup electrical power in the case of unavoidable loss of commercial power.

***What emission limits and operating schedule are being requested?***

See attached Notice of Intent to Construct form for this information.

***How do I get additional information regarding this proposed application?***

For inquiries regarding the proposed source, contact:

- Kirtland Air Force Base Public Affairs Office
- [377abw.pa@us.af.mil](mailto:377abw.pa@us.af.mil)
- (505) 846-5991

For inquiries regarding the air quality permitting process, contact:

- City of Albuquerque Environmental Health Department Air Quality Program
- [aqd@cabq.gov](mailto:aqd@cabq.gov)
- (505) 768-1972

## **B.2 Notice of Intent (NOI) to Construct**

# NOTICE FROM THE APPLICANT

## Notice of Intent to Apply for Air Quality Construction Permit

You are receiving this notice because the New Mexico Air Quality Control Act (20.11.41.13B NMAC) requires any owner/operator proposing to construct or modify a facility subject to air quality regulations to provide public notice by certified mail or electronic mail to designated representatives of recognized neighborhood associations and coalitions within 0.5-mile of the property on which the source is or is proposed to be located.

This notice indicates that the owner/operator intends to apply for an Air Quality Construction Permit from the Albuquerque – Bernalillo County Joint Air Quality Program. Currently, no application for this proposed project has been submitted to the Air Quality Program. Applicants are required to include a copy of this form and documentation of mailed notices with their Air Quality Construction Permit Application.

### Proposed Project Information

**Applicant's name  
and address:**

*Nombre y domicilio del  
solicitante:* \_\_\_\_\_

**Owner / operator's  
name and address:**

*Nombre y domicilio del  
propietario u operador:* \_\_\_\_\_

**Contact for comments and inquires:**

*Datos actuales para comentarios y preguntas:*

Name (*Nombre*): \_\_\_\_\_

Address (*Domicilio*): \_\_\_\_\_

Phone Number (*Número Telefónico*): \_\_\_\_\_

E-mail Address (*Correo Electrónico*): \_\_\_\_\_

**Actual or estimated date the application will be submitted to the department:**

*Fecha actual o estimada en que se entregará la solicitud al departamento:* \_\_\_\_\_

**Description of the source:**

*Descripción de la fuente:* \_\_\_\_\_

**Exact location of the source  
or proposed source:**

*Ubicación exacta de la fuente o  
fuente propuesta:* \_\_\_\_\_

**Nature of business:**

*Tipo de negocio:* \_\_\_\_\_

**Process or change for which the  
permit is requested:**

*Proceso o cambio para el cuál de solicita el  
permiso:* \_\_\_\_\_

**Maximum operating schedule:**

*Horario máximo de operaciones:* \_\_\_\_\_

**Normal operating schedule:**

*Horario normal de operaciones:* \_\_\_\_\_

**Preliminary estimate of the maximum quantities of each regulated air contaminant the source will emit:**  
*Estimación preliminar de las cantidades máximas de cada contaminante de aire regulado que la fuente va a emitir:*

<b>Air Contaminant</b>  <i>Contaminante de aire</i>	<b>Proposed Construction Permit</b> <i>Permiso de Construcción Propuesto</i>		<b>Net Changes</b> <b>(for permit modification or technical revision)</b> <i>Cambio Neto de Emisiones</i> <i>(para modificación de permiso o revisión técnica)</i>	
	pounds per hour <i>libras por hora</i>	tons per year <i>toneladas por año</i>	pounds per hour <i>libras por hora</i>	tons per year <i>toneladas por año</i>
<b>NO<sub>x</sub></b>				
<b>CO</b>				
<b>VOC</b>				
<b>SO<sub>2</sub></b>				
<b>PM<sub>10</sub></b>				
<b>PM<sub>2.5</sub></b>				
<b>HAP</b>				

**Questions or comments regarding this Notice of Intent should be directed to the Applicant.** Contact information is provided with the Proposed Project Information on the first page of this notice. To check the status of an Air Quality Construction Permit application, call 311 and provide the Applicant's information, or visit [www.cabq.gov/airquality/air-quality-permits](http://www.cabq.gov/airquality/air-quality-permits).

The Air Quality Program will issue a Public Notice announcing a 30-day public comment period on the permit application for the proposed project when the application is deemed complete. The Air Quality Program does not process or issue notices on applications that are deemed incomplete. More information about the air quality permitting process is attached to this notice.

## Air Quality Construction Permitting Overview

This is the typical process to obtain an Air Quality Construction Permit for Synthetic Minor and Minor sources of air pollution from the Albuquerque – Bernalillo County Joint Air Quality Program.

**Step 1: Pre-application Meeting:** The Applicant and their consultant must request a meeting with the Air Quality Program to discuss the proposed action. If air dispersion modeling is required, Air Quality Program staff discuss the modeling protocol with the Applicant to ensure that all proposed emissions are considered.

**Notice of Intent from the Applicant:** Before submitting their application, the Applicant is required to notify all nearby neighborhood associations and interested parties that they intend to apply for an air quality permit or modify an existing permit. The Applicant is also required to post a notice sign at the facility location.

**Step 2: Administrative Completeness Review and Preliminary Technical Review:** The Air Quality Program has 30 days from the day the permit is received to review the permit application to be sure that it is administratively complete. This means that all application forms must be signed and filled out properly, and that all relevant technical information needed to evaluate any proposed impacts is included. If the application is not complete, the permit reviewer will return the application and request more information from the Applicant. Applicants have three opportunities to submit an administratively complete application with all relevant technical information.

**Public Notice from the Department:** When the application is deemed complete, the Department will issue a Public Notice announcing a 30-day public comment period on the permit application. This notice is distributed to the same nearby neighborhood associations and interested parties that the Applicant sent notices to, and published on the Air Quality Program's website.

During this 30-day comment period, individuals have the opportunity to submit written comments expressing their concerns or support for the proposed project, and/or to request a Public Information Hearing. If approved by the Environmental Health Department Director, Public Information Hearings are held after the technical analysis is complete and the permit has been drafted.

**Step 3: Technical Analysis and Draft Permit:** Air Quality Program staff review all elements of the proposed operation related to air quality, and review outputs from advanced air dispersion modeling software that considers existing emission levels in the area surrounding the proposed project, emission levels from the proposed project, and meteorological data. The total calculated level of emissions is compared to state and federal air quality standards and informs the decision on whether to approve or deny the Applicant's permit.

**Draft Permit:** The permit will establish emission limits, standards, monitoring, recordkeeping, and reporting requirements. The draft permit undergoes an internal peer review process to determine if the emissions were properly evaluated, permit limits are appropriate and enforceable, and the permit is clear, concise, and consistent.

**Public Notice from the Department:** When the technical analysis is complete and the permit has been drafted, the Department will issue a second Public Notice announcing a 30-day public comment period on the technical analysis and draft permit. This second Public Notice, along with the technical analysis documentation and draft permit, will be published on the Air Quality Program's website, and the public notice for availability of the technical analysis and draft permit will only be directly sent to those who requested further information during the first comment period.

## Air Quality Construction Permitting Overview

During this second 30-day comment period, residents have another opportunity to submit written comments expressing their concerns or support for the proposed project, and/or to request a Public Information Hearing.

**Possible Public Information Hearing:** The Environmental Health Department Director may decide to hold a Public Information Hearing for a permit application if there is significant public interest and a significant air quality issue. If a Public Information Hearing is held, it will occur after the technical analysis is complete and the permit has been drafted.

**Step 4: Public Comment Evaluation and Response:** The Air Quality Program evaluates all public comments received during the two 30-day public comment periods and Public Information Hearing, if held, and updates the technical analysis and draft permit as appropriate. The Air Quality Program prepares a response document to address the public comments received, and when a final decision is made on the permit application, the comment response document is published on the Air Quality Program's website and distributed to the individuals who participated in the permit process. If no comments are received, a response document is not prepared.

**Step 5: Final Decision on the Application:** After public comments are addressed and the final technical review is completed, the Environmental Health Department makes a final decision on the application. If the permit application meets all applicable requirements set forth by the New Mexico Air Quality Control Act and the federal Clean Air Act, the permit is approved. If the permit application does not meet all applicable requirements, it is denied.

Notifications of the final decision on the permit application and the availability of the comment response document is published on the Air Quality Program's website and distributed to the individuals who participated in the permit process.

**The Department must approve** a permit application if the proposed action will meet all applicable requirements and if it demonstrates that it will not result in an exceedance of ambient air quality standards. Permit writers are very careful to ensure that estimated emissions have been appropriately identified or quantified and that the emission data used are acceptable.

**The Department must deny** a permit application if it is deemed incomplete three times, if the proposed action will not meet applicable requirements, if estimated emissions have not been appropriately identified or quantified, or if the emission data are not acceptable for technical reasons.

*For more information about air quality permitting, visit [www.cabq.gov/airquality/air-quality-permits](http://www.cabq.gov/airquality/air-quality-permits)*

### **B.3 Email Documentation of NOI Sent to Neighborhood Associations and Coalitions**



**Timothy M. Keller,**  
Mayor

**Public Participation**

**List of Neighborhood Associations  
and Neighborhood Coalitions  
MEMORANDUM**

**To:** Carina Munoz-Dyer, Air Quality Program Manager  
**From:** Michael McKinstry, Environmental Health-Air Quality Permitting Manager  
**Subject:** Determination of Neighborhood Associations and Coalitions  
within 0.5 mile of 3300 Ammo Road  
**Date:** January 23, 2026

**DETERMINATION:**

On January 23, 2026, I used the City of Albuquerque Zoning Advanced Map Viewer (<http://coagisweb.cabq.gov/>) to verify which City of Albuquerque Neighborhood Associations (NA), Homeowner Associations (HOA) and Neighborhood Coalitions (NC) are located within 0.5 mile of 3300 Ammo Road in Bernalillo County, NM.

I then used the City of Albuquerque Office (COA) of Neighborhood Coordination’s Monthly Master NA List dated January 2026 and the Bernalillo County (BC) Monthly Neighborhood Association January 2026 Excel file to determine the contact information for each NA and NC located within 0.5 mile of 3300 Ammo Road in Bernalillo County, NM.

The table below contains the contact information, which will be used in the City of Albuquerque Environmental Health Department’s public notice. Duplicates have been deleted.

COA/BC Association or Coalition	Name	Email or Mailing Address*
No information was found		

*\*If email address is not listed, provide public notice via certified mail and include a copy of each mail receipt with the application submittal.*

## **B.4 Public Notice Sign Guidelines Checklist**



# City of Albuquerque Environmental Health Department Air Quality Program



## Construction Permit (20.11.41 NMAC) Pre-Permit Application Meeting Agenda Checklist & Public Notice Sign Guidelines Checklist

**This entire document, including both completed checklists, must be included as part of the application package.**

Any person seeking a new permit, a permit modification, or an emergency permit under 20.11.41 NMAC (Construction Permits) shall do so by filing a written application with the Albuquerque-Bernalillo County Joint Air Quality Program, which administers and enforces local air quality laws for the City of Albuquerque (“City”) and Bernalillo County (“County”), on behalf of the City Environmental Health Department (“Department”).

Prior to submitting an application, per 20.11.41.13(A) NMAC, the applicant (or their consultant) shall contact the Department in writing and submit a Pre-Permit Application Meeting Request Form to request a pre-application meeting. The Pre-Permit Application Meeting Request Form is available at <https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms>. The purpose of the pre-application meeting is for the Department to provide the applicant with information regarding the contents of the application and the application process.

This pre-application meeting agenda checklist is provided to aid the Department and applicant in ensuring that in the pre-permit application meeting all information regarding the contents of the application and the application process are communicated to the applicant. This is because applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

Also included in this document is the Public Notice Sign Guidelines Checklist, which contains requirements for how the applicant must display the required weather-proof sign.

The applicant should fill out and have this agenda checklist available at the pre-application meeting to be sure all items are covered. Check the boxes to acknowledge that each item from the agenda was discussed and that requirements for the weather-proof sign were followed.

## Pre-Permit Application Meeting Agenda Checklist

Applicant Company Name: **U.S. Air Force - Kirtland Air Force Base (KAFB)**

Facility Name: **Building 737 MUNS Admin 377 MXS**

- Fill out and submit a Pre-Permit Application Meeting Request form  
Available online at <https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms/air-quality-application-forms>
- I.  Discuss Project:
- a. Facility Location
  - b. Facility Description
  - c. Main Processes
  - d. Equipment
  - e. Proposed Schedule
- II.  Discuss the requirement for a zoning certification or verifications for new permits and permit modifications. The Zoning Requirement Cover Page form is a required component of this part of the submittal:
- a. For projects on property subject to City or County zoning laws (*i.e.*, **not** located on federal land, **not** located on State of New Mexico land, **not** located on Tribal land), a zoning certification from the appropriate planning department is required.
    - i. City Planning Form: <https://www.cabq.gov/planning/code-enforcement-zoning>
    - ii. County Planning Form: <https://www.bernco.gov/planning/planning-and-land-use/applications-forms/>
  - b. If the project's property is not subject to City or County zoning jurisdiction, a zoning verification from both planning departments is required.
    - i. City Planning Form: <https://www.cabq.gov/planning/code-enforcement-zoning>
    - ii. County Planning Form: <https://www.bernco.gov/planning/planning-and-land-use/applications-forms/>
  - c. The zoning certification or verifications **must** be obtained from the appropriate Planning Department, either City of Albuquerque or Bernalillo County. For more information, please visit the City's Planning Department website at <https://www.cabq.gov/planning> or Bernalillo County's Planning Department website at the <https://www.bernco.gov/planning/>.
- III.  Discuss the requirement for a Compliance History Disclosure Form as of Nov. 6, 2023 for permit application submittals except for Administrative Revisions that are not transfers of ownership.
- IV.  Discuss the potential requirement for a BACT Analysis for new permits and permit modifications per 20.11.72 NMAC.
- a. Required if new or modifying stationary source is within a one-mile radius of an overburdened area, as described in 20.11.72.8(C) NMAC; or
  - b. Required if new or modifying stationary source emits any one, or combination of, the fifteen hazardous air pollutants (HAPs) listed in 20.11.72.8(D) NMAC.
- V.  If permit modification or revision, review current permit:
- a. Review Process Equipment Table and Emissions Table and discuss changes
  - b. Request information about the replacement or new equipment (for example, if it is an engine, we need to know if it is new, what year, fuel type, etc...) to give them an idea of the changes that will be needed
  - c. Discuss possible changes in permit conditions

- VI.  Air Dispersion modeling process, procedures and options:
- a. When modeling is required and possibility of waivers
  - b. Protocol process, purpose, and time frame
  - c. Preliminary review, purpose, and time frame
  - d. Full review and time frame
  - e. Peer reviews
  - f. Assumptions in the modeling become permit conditions
  - g. NED data should be used instead of DEM data for assigning elevations to receptors, sources, buildings, etc.
- VII.  Applicant's public notice requirements
- a. During the same month application package will be submitted, ask Department for memo of neighborhood associations/coalitions within ½ mile of facility
  - b. Fill out and send Notice of Intent to Construct form as attachment, with Applicant Notice Cover Letter as email body, to neighborhood associations/coalitions listed in memo:  
<https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms>
  - c. Post and maintain a weather-proof sign. Signs are available in the downtown Program office. The Public Notice Sign Guidelines Checklist can be found on the next page of this document.
- VIII.  Regulatory timelines
- a. 30 days to rule application complete
  - b. 90 days after ruled complete for permitting decision
  - c. 30-day public comment period after application deemed complete
  - d. If public interest in application:
    - i. 30-day review of technical analysis
    - ii. 90-day extension for permitting decision
  - e. Request for Public Information Hearing - 90-day extension for permitting decision
  - f. Complex technical issues in application - 90-day extension for permitting decision
  - g. If application ruled incomplete it stops timeline and restarts at beginning with updated submittal
- IX.  Department Policies
- a. One original hard copy must be submitted along with a duplicate copy. The duplicate copy should be a high-quality electronic duplicate submitted on thumb drive as one complete PDF with all application contents found in the hardcopy, including pages with signatures. However, do not include financial information, such as a copy of a check, in the electronic PDF. The electronic submittal should also include emission calculations Excel-compatible file(s) and modeling files, if applicable.
  - b. Applications will be ruled incomplete if any parts from Permit Application Checklist are missing
  - c. Review fees paid in full are part of the application package (Except as noted above)
  - d. Discuss payment format (by check, credit card or online)
  - e. Use the most recent Permit Application Checklist, found under Part 41 Implementation on this page:  
<https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms>
  - f. After three tries, permit application denied and application must start over including repayment of fees
- X.  Additional Questions?



# City of Albuquerque Environmental Health Department Air Quality Program



## Public Notice Sign Guidelines

Any person seeking a permit under 20.11.41 NMAC, Construction Permits, shall do so by filing a written application with the Department. *Prior to submitting an application, the applicant shall post and maintain a weather-proof sign provided by the department. The applicant shall keep the sign posted until the department takes final action on the permit application; if an applicant can establish to the department's satisfaction that the applicant is prohibited by law from posting, at either location required, the department may waive the posting requirement and may impose different notification requirements. A copy of this form must be submitted with your application.*

Applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

Applicant Company Name: **U.S. Air Force - Kirtland Air Force Base (KAFB)**

Facility Name: **Building 737 MUNS Admin 377 MXS**

- The sign must be posted at the more visible of either the proposed or existing facility entrance (or, if approved in advance and in writing by the department, at another location on the property that is accessible to the public)
  - The sign shall be installed and maintained in a condition such that members of the public can easily view, access, and read the sign at all times.
  - The lower edge of the sign board should be mounted a minimum of 2 feet above the existing ground surface to facilitate ease of viewing
- Include at least two pictures of the completed, properly posted sign in the application package immediately following this document. One picture should show the location of the posted sign and the other should be close enough to the sign for the posted information to be legible in the picture.
- Check here if the department has waived the sign posting requirement.**  
Alternative public notice details:

## B.5 Pictures of Posted Notice

**Building 737 Administration Facility, 377 MXS – Air Quality Construction Permit Application  
Public Notice Requirements – Yellow Sign  
Photos taken 28 JAN 2026**



## **APPENDIX C. COMPLIANCE HISTORY DISCLOSURE FORM**

---

### **C.1 Compliance History Disclosure Form**



# City of Albuquerque Environmental Health Department Air Quality Program



## Air Quality Compliance History Disclosure Form

The Albuquerque-Bernalillo County Joint Air Quality Program (“Program”) administers and enforces local air quality laws for the City of Albuquerque (“City”) and Bernalillo County (“County”) on behalf of the City Environmental Health Department, including the New Mexico Air Quality Control Act (“AQCA”), NMSA 1978, Sections 74-2-1 to -17. In accordance with Sections 74-2-7(P) and (S) of the AQCA, the Program may deny any permit application or revoke any permit issued pursuant to the AQCA if, within ten years immediately preceding the date of submission of the permit application, the applicant or permittee meets any one of the criteria outlined in the AQCA. The Program requires applicants to file this Compliance History Disclosure Form in order for the Program to deem an air permit application administratively complete, or issue an air permit for those permits without an initial administrative completeness determination process. Additionally, an existing permit holder (permits issued prior to the Effective Date of this Form) shall provide this Compliance History Disclosure Form to the Program upon the Program’s request. Note: Program Staff can answer basic questions about this Compliance History Disclosure Form but cannot provide specific guidance or legal advice.

### Instructions

1. Applications filed pursuant to the following regulations shall include this Compliance History Disclosure Form, in accordance with Section 74-2-7(S) of the AQCA: *Construction Permits* (20.11.41 NMAC); *Operating Permits* (20.11.42 NMAC); *Nonattainment Areas* (20.11.60 NMAC); *Prevention of Significant Deterioration* (20.11.61 NMAC); *Acid Rain* (20.11.62 NMAC); and *Fugitive Dust* (20.11.20 NMAC) except this Form shall not be required for asbestos notifications under 20.11.20.22 NMAC.
2. The permittee identified on this Compliance History Disclosure Form shall match the permittee in the existing permit or new application. If the information in an existing permit needs to be changed, please contact the Program about revisions and ownership transfers.
3. Answer every question completely and truthfully, and do not leave any blank spaces. If there is nothing to disclose in answer to a particular question, check the box labeled “No.” Failure to provide any of the information requested in this Compliance History Disclosure Form may constitute grounds for an incompleteness determination, application denial, or permit revocation.
4. Be especially careful not to leave out information in a way that might create an impression that you are trying to hide it. Omitting information, even unintentionally, may result in application denial or permit revocation.
5. If necessary, continue answers on a separate page and identify the question. If you submit any document in connection with your answer to any question, refer to it as, “Exhibit No. \_\_”, and attach it at the end of the Compliance History Disclosure Form, consecutively numbering each additional page at the top right corner.
6. The Program may require additional information to make a thorough review of an application. At all times before the Program has made a final decision regarding the application, an applicant has a duty to promptly supplement and correct information the applicant has submitted in an application to the Program. The applicant’s duty to supplement and correct the application includes, but is not limited to, relevant information acquired after the applicant has submitted the application and additional information the applicant otherwise determines is relevant to the application and the Program’s review and decision. While the Program is processing an application, regardless of whether the Program has determined the application is administratively complete, if the Program determines that additional information is necessary to evaluate or make a final decision regarding the application, the Program may request additional information and the applicant shall provide the requested additional information.
7. Supplementary information required by the Program may include responses to public comment received by the Program during the application review process.
8. Any fees submitted for processing an application that has been denied will not be refunded. If the Program denies an application, a person may submit a new application and the fee required for a new application. The applicant has the burden of demonstrating that a permit should be issued.

COMPLIANCE HISTORY		
A. Applicant/Permittee Name: <b>Kirtland Air Force Base</b>		Check Applicable Box: Applicant <input type="checkbox"/> Permittee <input checked="" type="checkbox"/>
B. Time Period of Compliance Reporting (10 Years): <b>12/01/2015</b> to <b>12/01/2025</b> <i>Instructions: For applicants, answer the following questions with information from within the 10 years preceding the current application. For existing permit holders, answer the following questions with information from within the 10 years preceding the Program's issuance of the permit.</i>		
C. Questions		
1	Knowingly misrepresented a material fact in an application for a permit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2	Refused to disclose information required by the provisions of the New Mexico Air Quality Control Act?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3	Been convicted in any court of any state or the United States of a felony related to environmental crime?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4	Been convicted in any court of any state or the United States of a crime defined by state or federal statute as involving or being in restraint of trade, price fixing, bribery, or fraud?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5a	Constructed or operated any facility for which a permit was sought, including the current application, without the required air quality permit(s) under 20.11.41 NMAC, 20.11.42 NMAC, 20.11.60 NMAC, 20.11.61 NMAC, or 20.11.62 NMAC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5b	If "No" to question 5a, go to question 6.  If "Yes" to question 5a, state whether each facility that was constructed or operated without the required air quality permit met at least one of the following exceptions:  i. The unpermitted facility was discovered after acquisition during a timely environmental audit that was authorized by the Program or the New Mexico Environment Department; or  ii. The operator of the facility, using good engineering practices and established approved calculation methodologies, estimated that the facility's emissions would not require an air permit, <b>and</b> the operator applied for an air permit within 30 calendar days of discovering that an air permit was required for the facility.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6	Had any permit revoked or permanently suspended for cause under the environmental laws of any state or the United States?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7	For each "yes" answer, please attach an explanation and supporting documentation.	

I, the undersigned, hereby certify under penalty of law that this Compliance History Disclosure Form (Form) and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I have knowledge of the information in this Form and it is, to the best of my knowledge and belief, true, accurate, and complete. I understand that there are significant penalties for submitting false information, including denial of the application or revocation of a permit, as well as fines and imprisonment for knowing violations. If I filed an application, I covenant and agree to promptly supplement and correct information in this Form until the Program makes a final decision regarding the application. Further, I certify that I am qualified and authorized to file this Form, to certify to the truth and accuracy of the information herein, and bind the permittee and source.

Signed on

**JUSTIN D. SECREST, Colonel, USAF**

Print Name

SECREST.JUSTIN.D.107  
8711082

Signature

Digitally signed by  
SECREST.JUSTIN.D.1078711082  
Date: 2026.01.27 08:48:12 -07'00'

**Commander, 377th Air Base Wing**

Print Title

**Kirtland Air Force Base**

Company Name

**Kirtland Air Force Base  
Attachment A – Compliance History Form**

<b>Deviation Start Date</b>	<b>Deviation End date</b>	<b>Cause of Deviation</b>	<b>Correction Action Taken</b>
14 Oct 2022	22 Mar 2023	A 20.11.41 NMAC Construction Permit was not obtained for one diesel-fired emergency generator at Kirtland Air Force Base (KAFB). The generator was identified as a 10-kW diesel-fired emergency generator located at 377th Medical Group and was used infrequently to provide back-up power to the Dental Clinic. The generator installation date is unknown. On 16 February 2023, KAFB received a Post-Inspection Notification (PIN) over the alleged violation. The PIN required the unit to be either permitted or decommissioned.	KAFB self-reported the discovery of the emergency generator to AEHD on 20 December 2022. The signed PIN was submitted to AEHD via email on 1 March 2023. On 28 April 2023, KAFB received documentation from 377th Medical Group indicating that the generator was decommissioned and abandoned in place on 22 March 2023. KAFB notified AEHD via email on the status of the decommissioned unit on 23 May 2023.
Prior to 1994	8 Oct 2021	Construction Permit #1759 did not include an existing fuel storage tank. The fuel storage tank was identified during communications between KAFB Environmental Management and Starfire Optical Range (SOR), who operates the facility where the fuel storage tank is located. The unit was identified as one, 250-gallon above ground storage tank containing gasoline with an associated single nozzle fuel dispenser. The fuel storage tank is no longer in use and has been emptied and cleaned. The fuel tank was installed prior to 1994 but the actual date is unknown.	KAFB self-reported the discovery of this tank to AEHD on 29 July 2022 as part of the Annual Compliance Certification. The tank was inspected by Liquid Fuels Management and was deemed out-of-service on 8 October 2021.
7 Feb 2020	23 Jun 2021	A 20.11.41 NMAC Construction Permit was not obtained for one diesel fired generator at KAFB. The generator was identified during communications between the KAFB Civil Engineering Power Production shop and the National Assessment Group who operates the facility where the generator is located. The unit was identified as a 60-kW generator with 80.9 horsepower (hp) engine located at Manzano Complex, a remote and secure area. At the time of discovery, the generator was not in use, and the battery and electrical panel were not installed. It was estimated that the generator was installed in 2001 but had not been operated for at least the last four years. The National Assessment Group determined that the generator was not needed for continued operations.	KAFB self-reported the discovery of this generator to AEHD on 28 July 2021 as a part of the Annual Compliance Certification. KAFB and the National Assessment Group coordinated with the Defense Logistics Agency (DLA) to remove and dispose of the generator. The generator was transferred to the DLA disposal facility holding yard on 23 June 2021.
2006	Jul 2019	A 20.11.41 NMAC Construction Permit was not obtained for one diesel fired non-emergency generator at KAFB. The generator was identified during a base wide inventory conducted specifically to identify any nonpermitted emission units as specified in a letter submitted to AEHD by KAFB on 31 January 2017. The 71 kW generator with 95.2 hp engine was located in a remote training area	On 28 December 2017, KAFB self-reported the discovery of the generator to AEHD. KAFB submitted a construction permit application on 10 January 2019. AEHD issued Construction Permit #3366 on 22 July 2019. The generator was decommissioned and

**Kirtland Air Force Base  
Attachment A – Compliance History Form**

Deviation Start Date	Deviation End date	Cause of Deviation	Correction Action Taken
		<p>known as Bivouac Area 3. It was used to simulate a remote environment for training purposes. It was estimated that the generator was installed in early 2006. Onsite usage records and discussion with facility managers confirmed that the generator operated five to six times per year for three to four hours for training purposes.</p>	<p>removed from KAFB on 2 and 5 February 2022, respectively. Construction Permit #3366 was cancelled 31 October 2023.</p>
1993	12 Dec 2016	<p>A 20.11.41 NMAC Construction Permit was not obtained for two natural gas generators at KAFB. The two natural gas generators were identified by an Air Force Research Laboratory (AFRL) Unit Environmental Coordinator after being contacted by the building tenants. The two 100kW generators with 168 horsepower (hp) engines had provided emergency back-up power to AFRL buildings 30134 and 30136 and were installed in 1993. Onsite usage records confirmed that the generators had operated as emergency engines through 2016.</p>	<p>On 16 December 2016, KAFB self-reported the discovery of the two generators to AEHD. On 12 December 2016 KAFB met with the current tenant of buildings 30134 and 30136 to determine if the generators were still in use and connected to natural gas. After inspecting the generators and interviewing the tenant it was determined that the generators were still operational but not necessary for current operations. On 12 December 2016, Power Production shut down the generators, disconnected them from the natural gas lines, and disconnected the battery packs.</p>

## **APPENDIX D. FACILITY LOCATION AND AERIAL PHOTOGRAPH**

---

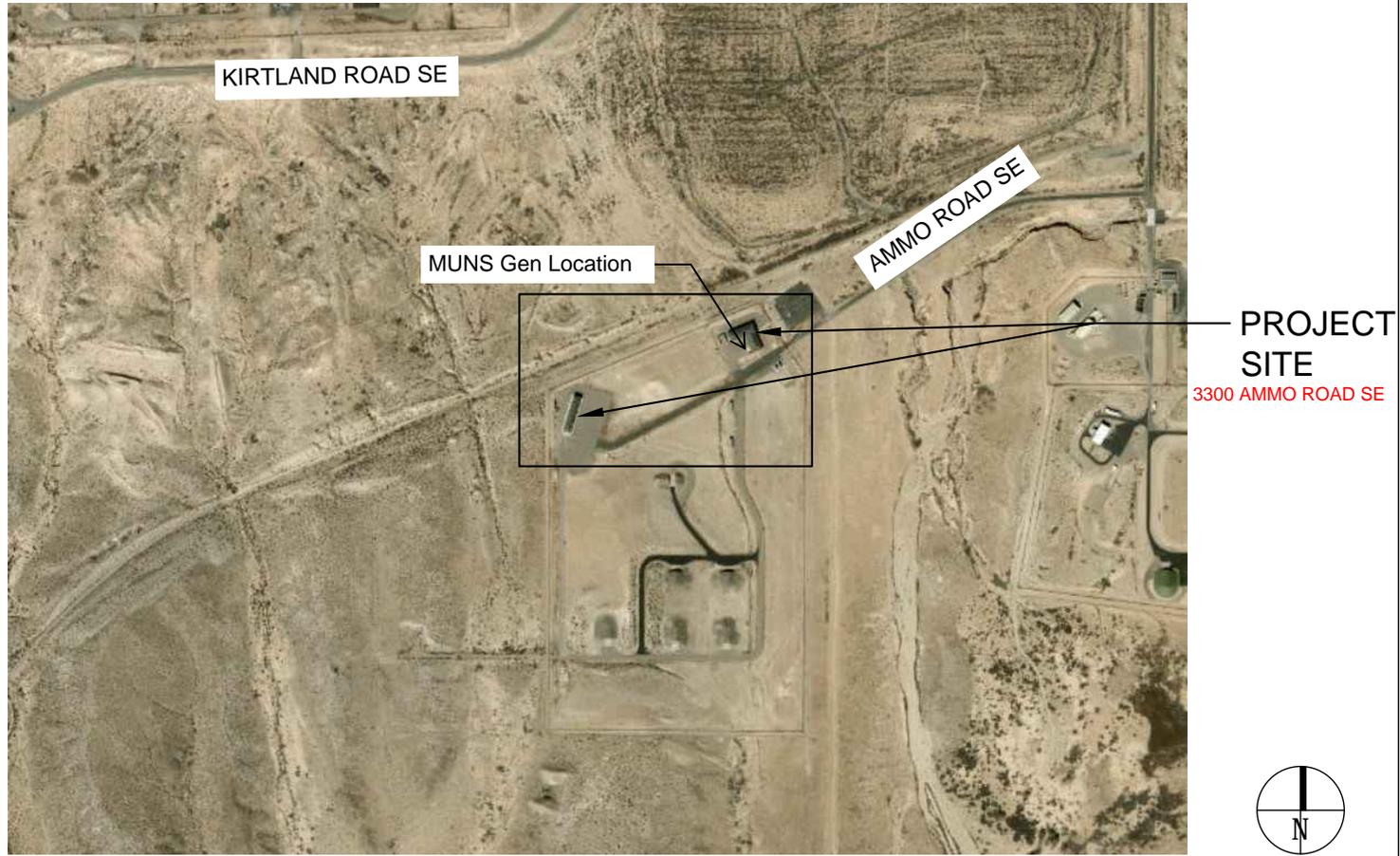
### **D.1 Facility Location and Aerial Photograph**

# Kirtland Air Force Base

Diesel-Fired Emergency Generator

## AREA MAP

SCALE: NTS



### Legend

Diesel-Fired Emergency Generator



## **APPENDIX E. ZONING REQUIREMENTS**

---

The property that Kirtland AFB's emergency generator is located on is owned by the Department of Defense U.S. Air Force. The Bernalillo County zoning regulations are not applicable to U.S. Federal Government nor U.S. Federal Government entity owned properties. This includes properties located within the boundary of Kirtland Air Force Base.

# CITY OF ALBUQUERQUE



## CODE ENFORCEMENT

Plaza Del Sol Building, Suite 500  
600 2<sup>nd</sup> Street NW  
Albuquerque, NM 87102  
Tel: (505) 924-3850 Fax: (505) 924-3847

Date: March 15, 2024

VIA Email, [Carina.munoz-dyer@us.af.mil](mailto:Carina.munoz-dyer@us.af.mil)

Carina G. Munoz-Dyer  
2050 Wyoming Blvd SE, B20685, Room A-106  
Kirtland AFB, NM 87117

RE: City of Albuquerque Zoning Regulations and Federally Owned Properties

To Whom It May Concern:

This letter shall certify that the City of Albuquerque zoning regulations are not applicable for properties owned by U.S. Federal Government, U.S. Federal Government entities, and properties within Kirtland Air Force Base.

If you have any questions regarding this matter, please feel free to contact Code Enforcement by email at [codeenforcement@cabq.gov](mailto:codeenforcement@cabq.gov)

Sincerely,

Angelo Metzgar  
Code Compliance Manager  
Planning Department  
City of Albuquerque

# Planning & Development Services Department

415 Silver Ave. SW, 2<sup>nd</sup> Floor  
Albuquerque, New Mexico 87102  
Office: (505) 314-0350  
Fax: (505) 314-0480  
[www.bernco.gov](http://www.bernco.gov)



February 29, 2024

Carina G. Munoz-Dyer  
377 MSG/CEIEC, Air Quality Program Manager  
2050 Wyoming Blvd SE, B20685, Room A-106  
Kirtland AFB, NM 87117

Re: Bernalillo County zoning regulations and federally owned parcels

To Whom It May Concern:

This letter shall certify that Bernalillo County zoning regulations are not applicable to U.S. Federal Government nor U.S. Federal Government entity owned properties. This includes properties located within the boundary of Kirtland Air Force Base. Bernalillo County is willing to assist federal entities with necessary permits, building permits for example, if approached by a federal entity.

This certification statement only references the applicability of the Zoning Ordinance as it applies to the aforementioned properties.

Do not hesitate to contact me if you have questions concerning this matter at 314-0499 or at [mgould@bernco.gov](mailto:mgould@bernco.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Maggie Gould".

Maggie Gould  
Zoning Administrator

CC: [Carina.munoz-dyer@us.af.mil](mailto:Carina.munoz-dyer@us.af.mil)

#### County Commissioners

Barbara Baca, Chair, District 1 • Adriann Barboa, Vice-Chair, District 3  
Steven Michael Quezada, District 2 • Walt Benson, District 4 • Eric C. Olivas, District 5

#### Elected Officials

Damian R. Lara, Assessor • Linda Stover, Clerk • Cristy J. Carbón-Gaul, Probate Judge  
John D. Allen, Sheriff • Nancy M. Bearce, Treasurer

#### County Manager

Julie Morgas Baca