City of Albuquerque

Environmental Health Department
Air Quality Program

Permit Application Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to ruling a submitted application complete each application submitted shall contain the required items listed below. **This checklist must be returned with the 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.

All applicants shall:

1. Fill out and submit the *Pre-permit Application Meeting Request* form
   a. X Attach a copy to this application

2. Attend the pre-permit application meeting
   a. X Attach a copy of the completed *Pre-permit Application Meeting Checklist* to this application

3. Provide public notice to the appropriate parties
   a. X Attach a copy of the completed *Notice of Intent to Construct* form to this form
      i. Neighborhood Association(s): Campus NA, District 6 Coalition NA, District 7 Coalition of NA, Silver Hill NA, Spruce Park NA, Sycamore NA
      ii. Coalition(s): _____
   b. X Attach a copy of the completed *Public Sign Notice Guideline* form

4. Fill out and submit the *Permit Application*. All applications shall:

   A. X be made on a form provided by the Department. Additional text, tables, calculations or clarifying information may also be attached to the form.

   B. X at the time of application, include documentary proof that all applicable permit application review fees have been paid as required by 20 NMAC 11.02. Please refer to the attached permit application worksheet.

   C. X contain the applicant's name, address, and the names and addresses of all other owners or operators of the emission sources.

D. ☒ contain the name, address, and phone number of a person to contact regarding questions about the facility.

E. ☒ indicate the date the application was completed and submitted

F. ☒ contain the company name, which identifies this particular site.

G. ☒ contain a written description of the facility and/or modification including all operations affecting air emissions.

H. ☒ contain the maximum and standard operating schedules for the source after completion of construction or modification in terms of hours per day, days per week, and weeks per year.

I. ☒ provide sufficient information to describe the quantities and nature of any regulated air contaminant (including any amount of a hazardous air pollutant) that the source will emit during:

- Normal operation
- Maximum operation
- Abnormal emissions from malfunction, start-up and shutdown

J. ☒ include anticipated operational needs to allow for reasonable operational scenarios to avoid delays from needing additional permitting in the future.

K. ☒ contain a map, such as a 7.5-minute USGS topographic quadrangle, showing the exact location of the source; and include physical address of the proposed source.

L. ☒ contain 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.

M. ☒ contain the UTM zone and UTM coordinates.

N. ☒ include the four digit Standard Industrialized Code (SIC) and the North American Industrial Classification System (NAICS).

O. ☒ contain the types and **potential emission rate** amounts of any regulated air contaminants the new source or modification will emit. Complete appropriate sections of the application; attachments can be used to supplement the application, but not replace it.

P. ☒ contain the types and **controlled** amounts of any regulated air contaminants the new source or modification will emit. Complete appropriate sections of the application; attachments can be used to supplement the application, but not replace it.

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 8:00am - 5:00pm Monday - Friday to:
3rd Floor, Suite 3023 - One Civic Plaza NW, Albuquerque, New Mexico 87103
(505) 768 – 1972 aqd@cabq.gov (505) 768 - 1977 (Fax)

RECEIVED
Albuquerque Environmental Health Department
JUN 19 2019

20.11.41 NMAC Air Quality Permit Application
For
EMERGENCY DIESEL ENGINES
SUBJECT TO FEDERAL (USEPA) NEW SOURCE PERFORMANCE STANDARDS (NSPS)

Section 1. General Information

Date Submitted: ____ / ____ / 20____

1. Company Name: University of New Mexico Ph: (505) 277-7520 Email: cbhall4@unm.edu
2. Company Address: Scholes Hall 160, Bldg. 10 1800 Roma Ave NE City: Albuquerque State: NM Zip: 87131
3. Company Mailing Address (if different): MSC05 3350 1 University of New Mexico Albuquerque, NM Zip: 87131
4. Company Contact: Craig White Title: Senior Vice President for Finance and Administration Ph: (505) 277 - 7520 Email: cwhite@unm.edu
5. Facility Name: Logan Hall Facility Hours: 12 : 00 am or pm TO 12 : 00 am or pm
6. Facility Address: 2001 Redondo Dr. South NE Bldg #34 City: Albuquerque State: NM Zip: 87131
7. Local Business Mailing Address (if different): MSC07 4100 1 University of New Mexico Albuquerque, NM 87131 Email: cbhall4@unm.edu
8. Facility Environmental Contact: Casey Hall Title: Environmental Health Manager Ph: ( ) 277 - 0305 Fax: (505) 277 - 9006
9. Email: cbhall4@unm.edu 10. Type of Business: Colleges, Universities, and Professional Schools
11. Environmental Consultant Name and Email Address (if applicable):
12. North American Industry Classification System (NAICS): 611310 13. Standard Industrial Classification (SIC): 8221
14. UTM coordinates (required): 351926 east 3883360 north 15. Facility Ph: (505) 272 - 4632 Fax: (505) 277 - 9006
16. Billing Contact: Casey Hall Title: Environmental Health Manager Ph: (505) 277 - 0305 Fax: (505) 277 - 9006
17. Billing Address: MSC07 4100 1 University of New Mexico City: Albuquerque State: NM Zip: 87131
18. Is this an Initial Installation; OR Modification of an Existing Unit: ____ Initial X Modification 19. Current or requested operating hrs/yr: 200
20. Is engine or genset installed: ____ Yes X No If yes, date installed: ____/____/____ If no, anticipated installation date: 9 / 15 /20 19

Provide an engine spec sheet and a detailed site plan or plat of the property where engine or genset is to be installed.

Section 2. Compression Ignition Internal Combustion Engine for Stationary Emergency Engines

Provide engine rating in horsepower (Hp) as determined by manufacturer's spec sheet.

Process Equipment Unit	Manufacturer	Model Number	Serial Number	Manufacturer Date	Modification Date	Engine Size In Horsepower (Hp)	Size of Generator In kilowatts (kW)
Example Engine	Unigen	B-2500	A56732195C-222	02/2008	N/A	375	N/A
Example Generator	Gentor	A56789B234	XYZ13247586	02/2008	N/A	N/A	280 kW
Engine	Cummins	4BTAA3.3-G7	TBD	TBD	N/A	99	N/A
Generator	Cummins	TBD	TBD	TBD	N/A	N/A	50

Section 3. Stack and Emissions Information

Stack Height Above Ground & Stack Diameter In Feet		Stack Temperature	Stack Flow Rate & Exit Direction
Example 18 feet – Height	0.42 feet – Diameter	625 ^{0}F	3,000 ft^3/min – Flow Rate Exit - upward

TBD	0.25 ft	831 F	454cfm-Flow Rate Exit-Up

Section 4. Potential Emission Rate (Uncontrolled Emissions)

Use manufacturer's data, compliance performance stack test data or the attached USEPA Emission Factors in grams per horsepower-hour (g/Hp-hr) associated with the Engine's Horsepower Rating and Model Year

Model Year	Pollutant	Emission Factors g/Hp-hr	TIMES	Actual Engine Hp	EQUALS	Emission In Grams Per Hour	DIVIDE	Grams Per Pound	EQUALS	Emission in Pounds Per Hour	TIMES	Potential Operating Hours Per Year	DIVIDE	Pounds Per Ton	EQUALS	Emission In Tons Per Year
EXAMPLE 2008	CO	2.6	x	375 Hp	=	975	+	453.6	=	2.15	x	8,760	+	2,000	=	9.4
	NO_x	0.3	x		=	112.5	+		=	0.25	x	8,760	+	2,000	=	1.1
	NMHC	0.14	x		=	52.5	+		=	0.12	x	8,760	+	2,000	=	0.53
	*NOx + NMHC	3.0	x		=	1,125	+		=	2.48	x	8,760	+	2,000	=	10.86
	**SO_x	0.93	x		=	348.8	+		=	0.77	x	8,760	+	2,000	=	3.37
	***PM	0.15	x		=	56.25	+		=	0.12	x	8,760	+	2,000	=	0.53
2019	CO	0.8	x	99	=	79.2	+	453.6	=	0.17	x	8,760	+	2,000	=	0.76
	NO_x	3.7	x	99	=	366.3	+	453.6	=	0.81	x	8,760	+	2,000	=	3.54
	NMHC	0.6	x	99	=	59.4	+	453.6	=	0.13	x	8,760	+	2,000	=	0.57
	*NOx + NMHC	3.2	x	99	=	316.8	+	453.6	=	0.70	x	8,760	+	2,000	=	3.06
	**SO_x	0.1	x	99	=	9.9	+	453.6	=	0.02	x	8,760	+	2,000	=	0.10
	***PM	0.29	x	99	=	28.71	+	453.6	=	0.06	x	8,760	+	2,000	=	0.28

* If the USEPA Emission Factor or manufacturer's data is given as combined NOx + NMHC, also provide individual emission factors for NOx and NMHC from the manufacturer or other approved methodology for estimating individual emission factors.
** Manufacturer's SOx factor shall be used when larger than the USEPA Emission Factor.
*** Particulate Matter (PM) emissions are considered to be < 1 µm (micron). Therefore, PM emissions also reflect PM_{10} & $PM_{2.5}$.

Section 5. Potential to Emit (Requested allowable rate) (Controlled Emissions)

Transfer each pollutant Emission in Pounds Per Hour from column above to the Emission in Pounds Per Hour column below. Complete the equation after inserting the Requested Operating Hours Per Year. Pound Per Hour rate for each pollutant must be met if performance testing is requested.

Pollutant	Emission in Pounds Per Hour	TIMES	Requested Operating Hours Per Year	EQUALS	Pounds Per Year	DIVIDE	Pounds Per Ton	EQUALS	Emission In Tons Per Year
EXAMPLE CO	2.15	x	200	=	430	+	2,000	=	0.22
NO_x		x		=		+		=	
NMHC		x		=		+		=	
*NOx + NMHC	2.48	x	200	=	496	+	2,000	=	0.25
**SO_x	0.77	x	200	=	154	+	2,000	=	0.08
***PM	0.12	x	200	=	24	+	2,000	=	0.012
CO	0.17	x	200	=	34.92	+	2,000	=	0.017
NO_x	0.81	x	200	=	161.51	+	2,000	=	0.081
NMHC	0.13	x	200	=	26.19	+	2,000	=	0.013
*NOx + NMHC	0.70	x	200	=	139.68	+	2,000	=	0.070
**SO_x	0.02	x	200	=	4.37	+	2,000	=	0.002
***PM	0.06	x	200	=	12.66	+	2,000	=	0.006

I, the undersigned, a responsible officer of the applicant company, certify that to the best of my knowledge, the information stated on this application, together with associated drawings, specifications, and other data, give a true and complete representation of the existing, modified existing, or planned new stationary source with respect to air pollution sources and control equipment. I also understand that any significant omissions, errors, or misrepresentations in these data will be cause for revocation of part or all of the resulting source registration and air quality permit.

Gary White — Print Name

Sign Name

6/18/19 — Title: Snd. Sr.VP

/ /20 — Date

Q. [X] contain the basis or source for each emission rate (include the manufacturer's specification sheets, AP-42 Section sheets, test data, or other data when used as the source).

R. [X] contain all calculations used to estimate **potential emission rate** and **controlled** emissions.

S. [X] contain the basis for the estimated control efficiencies and sufficient engineering data for verification of the control equipment operation, including if necessary, design drawings, test reports, and factors which affect the normal operation (e.g. limits to normal operation).

T. [X] contain fuel data for each existing and/or proposed piece of fuel burning equipment.

U. [X] contain the anticipated maximum production capacity of the entire facility and the requested production capacity after construction and/or modification.

V. [X] contain the stack and exhaust gas parameters for all existing and proposed emission stacks.

W. [ ] provide an ambient impact analysis using a atmospheric dispersion model approved by the US Environmental Protection Agency (EPA), and the Department to demonstrate compliance with the ambient air quality standards for the City of Albuquerque and Bernalillo County (See 20.11.01 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.

X. [X] contain a preliminary operational plan defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown.

Y. [ ] contain a process flow sheet, including a material balance, of all components of the facility that would be involved in routine operations. Indicate all emission points, including fugitive points.

Z. [X] contain a full description, including all calculations and the basis for all control efficiencies presented, of the equipment to be used for air pollution control. This shall include a process flow sheet or, if the Department so requires, layout and assembly drawings, design plans, test reports and factors which affect the normal equipment operation, including control and/or process equipment operating limitations.

AA. [X] contain description of the equipment or methods proposed by the applicant to be used for emission measurement.

BB. [X] be signed under oath or affirmation by a corporate officer, authorized to bind the company into legal agreements, certifying to the best of his or her knowledge the truth of all information submitted.

Pre-Permit Application Meeting Request Form

Air Quality Program- Environmental Health Department

Please complete appropriate boxes and email to aqd@cabq.gov or mail to:

Environmental Health Department
Air Quality Program
P.O. Box 1293
Room 3047
Albuquerque, NM 87103

Name:	**Casey Hall**
Company/Organization:	University of New Mexico, Safety and Risk Services
Point of Contact: **(phone number and email):** **Preferred form of contact (circle one):** Phone E-mail	Phone: 505-277-0305 Email: cbhall4@unm.edu
Preferred meeting date/times:	4/5 – 9:00 AM, 4/8 9:00 AM, 4/10 9:00 AM
Description of Project:	UNM is currently in the planning stages of a project to replace or remove of several emergency generators around campus. The generators being replaced are as follows: • REG# 1972: 12 KW diesel EG replaced with 25 KW diesel EG • ATC# 1971: 70 KW natural gas EG replaced with 50 KW diesel EG • REG# 1970: 55 KW diesel EG replaced with 50 KW diesel EG • REG# 1971: 90 KW diesel EG replaced with 60 KW diesel EG The following generators UNM plans to remove without replacement: • REG# 1973: 27 hp natural gas EG • REG# 1974: 27 hp natural gas EG

City of Albuquerque

Environmental Health Department
Air Quality Program

Pre-Permit Application Meeting Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to submitting an application, the applicant shall contact the department in writing and request a pre-application meeting for information regarding the contents of the application and the application process. This checklist is provided to aid the applicant and **a copy must be submitted with the 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.

Name: Casey Hull
Contact: 277-0305
Company/Business: VNA

Fill out and submit a Pre-Permit Application Meeting Request form
⇒ Available online at http://www.cabq.gov/airquality

Emission Factors and Control Efficiencies
Notes:

Air Dispersion modeling guidelines and protocol
Notes:
N/A

Department Policies
Notes:
90 days

Air quality permit fees
Notes:

Ver. 11/13

Casey Hall

To: mg411@q.com
Subject: Public Notice of Proposed Air Quality Construction Permit Application
Attachments: Logan noticeofintenttoconstructbusiness-1.pdf

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	University of New Mexico
Site or Facility Name	Logan Hall
Site or Facility Address	2001 Redondo Dr. South NE Albuquerque, NM 87131
New or Existing Source	Existing
Anticipated Date of Application Submittal	4/30/2019
Summary of Proposed Source to Be Permitted	The application is to replace a 100 hp emegency generator manufactured in 1975 with a new 99 horsepower, EPA Tier III emission , diesel fired internal combustion engine coupled to a 50KW generator. The application seeks to restrict the unit to 200 hours per year of operation. The purpose of the unit is to provide emergency backup electrical power in the case of the 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:

- Casey Hall
- Cbhall4@unm.edu
- (505) – 277- 0305

For inquiries regarding the air quality permitting process, contact:

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

Casey B. Hall
Environmental Health Manager
Department of Safety & Risk Services

Public Notice of Proposed Air Quality Construction Permit Application - Message (HTML)

File Message Tell me what you want to do...

Mon 4/29/2019 12:15 PM

Casey Hall

Public Notice of Proposed Air Quality Construction Permit Application

To

Bcc [redacted]

Logan noticeofintenttoconstructbusiness-1.pdf
107 KB

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.

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Site or Facility Name	Logan Hall
Site or Facility Address	2001 Redondo Dr. South NE Albuquerque, NM 87131
New or Existing Source	Existing
Anticipated Date of Application Submittal	4 30 2019
Summary of Proposed Source to Be Permitted	The application is to replace a 100 hp emergency generator manufactured in 1975 with a new 99 horsepower, EPA Tier III emission , diesel fired internal combustion engine coupled to a 50KW generator. The application seeks to restrict the unit to 200 hours per year of operation. The purpose of the unit is to provide emergency backup electrical power in the case of the 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:

- Casey Hall
- Chhall4@unm.edu
- (505) – 277- 0305

For inquiries regarding the air quality permitting process, contact:

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

Casey B. Hall
Environmental Health Manager
Department of Safety & Risk Services

Notice of Intent to Construct

Under 20.11.41.13B NMAC, the owner/operator is required 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 with-in one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located* if they propose to construct or establish a new facility or make modifications to an existing facility that is subject to 20.11.41 NMAC – Construction Permits. **A copy of this form must be included with the application.**

Applicant's Name and Address: University of New Mexico, 1 University of New Mexico 87131

Owner / Operator's Name and Address: Same as Above

Actual or Estimated Date the Application will be submitted to the Department: 4/30/2019

Exact Location of the Source or Proposed Source: Logan Hall (Psychology) Building #34 2001 REDONDO DR. SOUTH N.E. ALBUQUERQUE, NM 87131

Description of the Source: 99HP Diesel Emergency Generator

Nature of the Business: University, Higher Education

Process or Change for which the permit is requested: Replacement of Emergency generator

Preliminary Estimate of the Maximum Quantities of each regulated air contaminant the source will emit:

Initial Construction Permit

	Pounds Per Hour (lbs/hr)	Tons Per Year (tpy)
CO	0.17	0.017
NOx	0.59	0.059
NOx + NMHC	0.70	0.07
VOC	0.02	0.002
SO_2	0.02	0.002
TSP	0.06	0.006
PM10	0.06	0.006
PM2.5	0.06	0.006
VHAP		

Net Changes In Emissions

(Only for permit Modifications or Technical Revisions)

	lbs/hr	tpy	Estimated Total TPY
CO	-15.24	-1.52	
NOx	-8.56	-0.86	
NOx + NMHC	-8.57	-0.86	
VOC	-0.1	-0.01	
SO_2	+0.02	+0.002	
TSP	-0.02	-0.02	
PM10	-0.02	-0.02	
PM2.5	-0.02	-0.02	
VHAP	+/-	+/-	

Maximum Operating Schedule: 200 hrs/yr

Normal Operating Schedule: 30 min/hr

Last Revised 10/25/2018

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Division
Phone: (505) 768-1972 Email: aqd@cabq.gov

City of Albuquerque

Environmental Health Department
Air Quality Program

Public Notice Sign Guidelines

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct 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.

Name: Casey Hall
Contact: 505-277-0305
Company/Business: UNM

☒ 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' above the existing ground surface to facilitate ease of viewing

☒ Attach a picture of the completed, properly posted sign to this document

☐ **Check here if the department has waived the sign posting requirement.**
Alternative public notice details:

Ver. 11/13


PRESS

CITY OF ALBUQUERQUE
P.O. BOX 1293
ALBUQUERQUE, NEW MEXICO 87103

RECEIPT NO. 0946191

DATE 5/6/19

RECEIVED FROM UNM

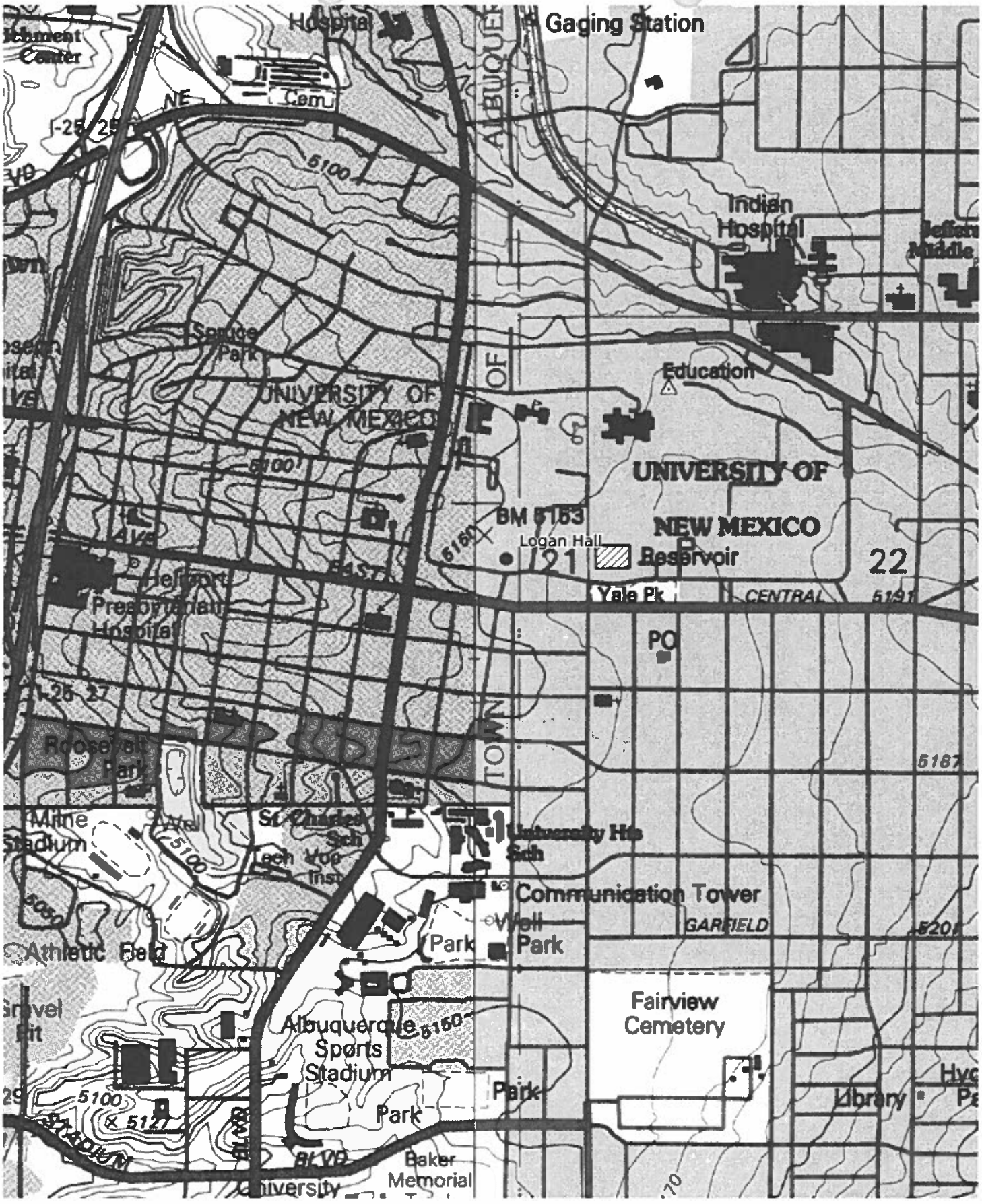
ADDRESS

Two Thousand Two Hundred Ninety two DOLLARS $ 2292.00

FOR Logan Hall

FUND _____ ACCT _____ DEPT. ID _____

ACCOUNT			CASH	CHECK
AMT. OF ACCOUNT				40182562
AMT PAID				
BALANCE DUE			BY	



Mercator Projection
WGS84
USNG Zone 13SCU

CalTopo

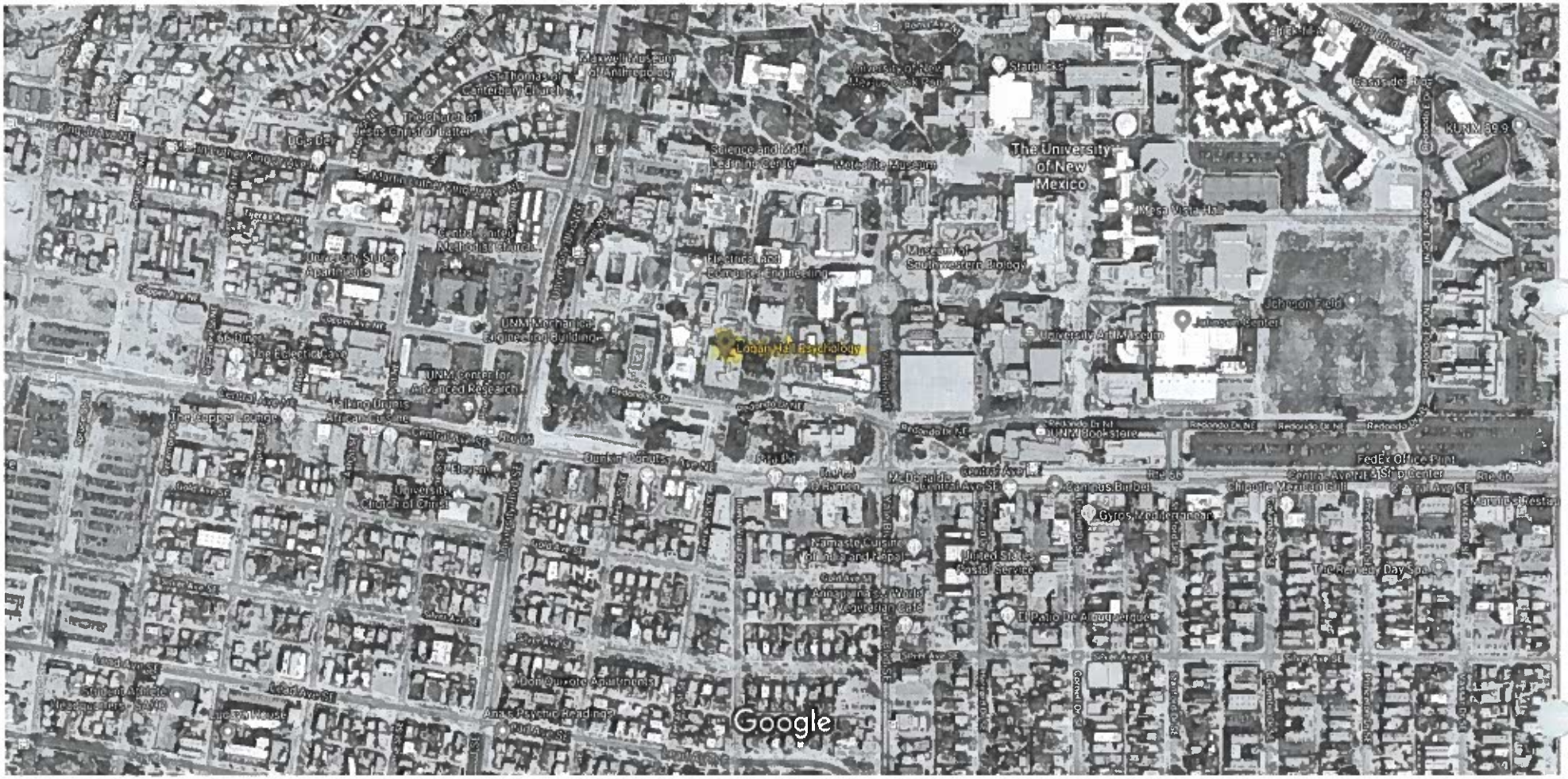
0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 km

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 mi

Scale **1:12473** 1 inch = 1039 feet

N MN 8°

Google Maps Logan Hall Psychology



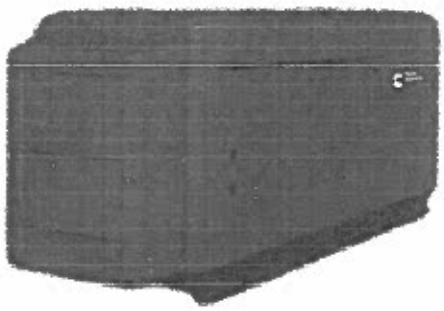
Imagery ©2019 Google, Map data ©2019 Google 200 ft

50 kW
- Mech Engrg
- Logan

Specification sheet

Diesel generator set

50 kW - 60 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

Cummins 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. Aluminum 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.

	Standby rating 60 Hz		Prime rating 60 Hz		Data sheets 60 Hz
Model	kW	kVA	kW	kVA	
C50 D6	50.0	62.5	45.0	56.25	NAD-5863
C60 D6	60.0	75.0	54.0	67.50	NAD-5864

Generator set data sheet

Model:	**C50 D6**
Frequency:	**60 Hz**
Fuel type:	**Diesel**
kW rating:	**50 Standby** **45 Prime**
Emissions level:	**EPA Emission Stationary Standby**

Exhaust emission data sheet:	**EDS-1186**
Exhaust emission compliance sheet:	**EPA-1255**
Sound performance data sheet:	**MSP-1184**
Cooling performance data sheet:	**MCP-266**
Prototype test summary data sheet:	**PTS-430**

Fuel consumption	**Standby**				**Prime**			
	kW (kVA)				**kW (kVA)**			
Ratings	50 (62.5)				45 (56.25)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
US gph	1.49	2.38	3.30	4.25	1.35	2.16	3.00	3.86
L/hr	5.64	9.01	12.49	16.09	5.11	8.18	11.36	14.61

Engine	**Standby rating**	**Prime rating**
Engine manufacturer	Cummins Inc.	
Engine model	4BTAA3.3-G7	
Configuration	Cast iron, in-line, 4 cylinder	
Aspiration	Turbocharged and charge air-cooled	
Gross engine power output, kWm (bhp)	73.8 (99)	67.1 (90)
BMEP at set rated load, kPa (psi)	1285.87 (186.5)	1167.9 (169.4)
Bore, mm (in.)	95 (3.74)	
Stroke, mm (in.)	115 (4.53)	
Rated speed, rpm	1800	
Piston speed, m/s (ft/min)	6.9 (1359)	
Compression ratio	17.3:1	
Lube oil capacity, L (qt)	7.9 (8.35)	
Overspeed limit, rpm	2250	

Fuel flow

Maximum fuel flow, L/hr (US gph)	56.39 (14.9)
Maximum fuel inlet restriction with clean filter, mm Hg (in Hg)	58.42 (2.3)
Maximum return restriction, mm Hg (in Hg)	375.92 (14.8)

Alternator data

Standard alternators		Single phase table	Three phase table			
Maximum temperature rise above 40 °C ambient		120 °C	120 °C	120 °C	120 °C	120 °C
Feature code		B949-2	B946-2	B986-2	B943-2	B952-2
Alternator data sheet number		ADS-582	ADS-581	ADS-581	ADS-581	ADS-581
Voltage ranges		120/240	120/208	120/240	277/480	347/600
Voltage feature code		R104-2	R098-2	R106-2	R002-2	R114-2
Surge kW		57.54	58.33	58.33	58.33	58.33
Motor starting kVA (at 90% sustained voltage)	Shunt	95	119	119	119	119
	PMG	150	181	181	181	181
Full load current amps at Standby rating		208	173.68	150.5	75.26	60.2

Optional alternators for improved motor-starting capability		Single phase table	Three phase table			
Maximum temperature rise above 40 °C ambient		120 °C	120 °C	120 °C	120 °C	120 °C
Feature code		B961-2	B958-2	B987-2	B955-2	B964-2
Alternator data sheet number		ADS-583	ADS-582	ADS-582	ADS-582	ADS-582
Voltage ranges		120/240	120/208	120/240	277/480	347/600
Voltage feature code		R104-2	R098-2	R106-2	R002-2	R114-2
Surge kW		59.19	59.39	59.39	59.39	59.39
Motor starting kVA (at 90% sustained voltage)	Shunt	170	212	95	212	212
	PMG	180	225	150	225	225
Full load current amps at Standby rating		208	173.68	150.5	75.26	60.2

Notes:

[1] Single phase power can be taken from a three phase generator set at up to 2/3 set rated 3-phase kW at 1.0 power factor. Also see Note 3 below.

[2] The broad range alternators can supply single phase output up to 2/3 set rated 3-phase kW at 1.0 power factor.

[3] The extended stack (full single phase output) and 4 lead alternators can supply single phase output up to full set rated 3-phase kW at 1.0 power factor.

Formulas for calculating full load currents:

Three phase output

$$\frac{kW \times 1000}{Voltage \times 1.73 \times 0.8}$$

Single phase output

$$\frac{kW \times SinglePhaseFactor \times 1000}{Voltage}$$

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

Our energy working for you.™

NAD 5864-EN (02/18)

2019 EPA Tier 3 Exhaust Emission Compliance Statement
C50 D6
Stationary Emergency
60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with Tier 3 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:	Cummins Inc
EPA Certificate Number:	KCEXL03.3CAA-048
Effective Date:	11/27/2018
Date Issued:	11/27/2018
EPA Engine Family (Cummins Emissions Family):	KCEXL03 3CAA

Engine Information:

Model:	4BTAA3.3-G7	Bore:	3.74 in. (95 mm)
Engine Nameplate HP:	99	Stroke:	4.53 in. (115 mm)
Type:	4 Cycle, In-line, 4 Cylinder Diesel	Displacement:	199 cu. in. (3.3 liters)
Aspiration:	Turbocharged & Charge Air Cooled	Compression ratio:	17.3:1
Emission Control Device:		Exhaust stack diameter:	3 in. (76 mm)

Diesel Fuel Emission Limits

D2 Cycle Exhaust Emissions

	Grams per BHP-hr			Grams per kWm-hr		
	NO_x + NMHC	CO	PM	NO_x + NMHC	CO	PM
Test Results	3.2	0.8	0.29	4.3	1.0	0.39
EPA Emissions Limit	3.5	3.7	0.30	4.7	5.0	0.40

Test methods: EPA nonroad emissions recorded per 40 CFR 89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for constant speed engines (ref. ISO8178-4, D2)

Diesel fuel specifications: 40-48 Cetane number, Reference: ASTM D975 No. 2-D, 300-500 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.

SAFETY & RISK SERVICES

Department of Safety & Risk Services
MSC07 4100, 1 University of New Mexico
Phone: 505-277-2753 Fax: 505-277-9006
Website: srsweb@unm.edu

Date: 6/13/19

To: Carina Munoz-Dyer, Environmental Health Supervisor, Environmental Health Department, CABQ

From: Casey Hall, Mgr. Env. Health, Safety and Risk Services, UNM

Subject: Emissions Calculations for Logan Hall Emergency Generator

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The anticipated emissions from the emergency generator replacement located at Logan Hall were calculated as follows. All emission values were derived from the manufacturer spec sheet, included with the application. The following values were obtained from the Diesel Fuel Emission Limits on page EPA-1255e, the EPA Tier 3 Exhaust Emission Compliance Statement:

	NO_x + NMHC (g/Hp-hr)	CO (g/Hp-hr)	PM (g/Hp-hr)
Test Results	3.2	0.8	0.29
EPA Emissions Limit	3.5	3.7	0.30

For emissions not specifically listed in the EPA Tier 3 Exhaust Emission Compliance Statement the values were derived from the Exhaust emission data sheet, page EDS – 1186. Please note total unburned hydrocarbons were used as a proxy for non-methane hydrocarbons (NMHC). The highest values listed for NO_x (3.7 g/ Hp-hr) and hydrocarbons (0.6 g/Hp –hr) on page EDS-1186 were used for the calculation of emissions.

The below equations are examples of how the emissions were calculated using NO_x.

Equation 1:

$$3.7\ \frac{g\ NO_x}{Hp\ \times\ hr} \times 99\ Hp = 366.3\ \frac{g\ NO_x}{hr}$$

Equation 2:

$$366.3\ \frac{g\ NO_x}{hr} \times \frac{1\ lb}{453.6\ g} = 0.81\ \frac{lb\ NO_x}{hr}$$

Equation 3:

$$0.81\ \frac{lb\ NO_x}{hr} \times 8760\ \frac{hr}{yr} \times \frac{1\ ton}{2000\ lb} = 3.54\ \frac{ton\ NO_x}{yr}$$

Equation 4:

$$0.81\ \frac{lb\ NO_x}{hr} \times 200\ \frac{hr}{yr} = 161.51\ \frac{lb\ NO_x}{yr}$$

Equation 5:

$$161.51\ \frac{lb\ NO_x}{yr} \times \frac{1\ ton}{2000\ lb} = 0.081\ \frac{ton\ NO_x}{yr}$$

SAFETY & RISK SERVICES

Department of Safety & Risk Services
MSC07 4100, 1 University of New Mexico
Phone: 505-277-2753 Fax: 505-277-9006
Website: srsweb@unm.edu

Date: 6/13/19

To: Carina Munoz-Dyer, Environmental Health Supervisor, Environmental Health Department, CABQ

From: Casey Hall, Mgr. Env. Health, Safety and Risk Services, UNM

Subject: Operations and Maintenance Plan for Logan Hall Emergency Generator

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The emergency generator replacement located at Logan Hall will implement the following O&M strategy to mitigate emissions. Pursuant to 20.11.41.13.E.(5) NMAC UNM will:

(a) In the case of a malfunction that causes excess emissions, Facilities Management reports the malfunction to Safety and Risk Services. The exceedance is then reported to the City of Albuquerque EHD in accordance with UNM's Title V permit 0536-RN1. A root cause of the exceedance will then be identified and repaired as quickly as practicable.
(b) Emissions of particulate matter as seen through opacity are higher during startup and shutdown due to low engine temperature leading to incomplete combustion during the compression ignition cycle. This unit is not equipped with any control equipment.
(c) The engine will be maintained in accordance with the manufacturer's requirements including monthly exercise and regular maintenance to reduce emissions during startup and shutdown.

City of Albuquerque

Environmental Health Department
Air Quality Program

Permit Application Review Fee Instructions

All source registration, authority-to-construct, and operating 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 modifications applications. 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 and submit with a check or money order payable to the "City of Albuquerque Fund 242" and either:

1. be delivered in person to the Albuquerque Environmental Health Department, 3rd floor, Suite 3023 or Suite 3027, Albuquerque-Bernalillo County Government Center, south building, One Civic Plaza NW, Albuquerque, NM or,

2. mailed to Attn: Air Quality Program, Albuquerque Environmental Health Department, P.O. Box 1293, Albuquerque, NM 87103.

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.

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MAY - 6 2019

ENTERED

City of Albuquerque

Environmental Health Department
Air Quality Program

Permit Application Review Fee Checklist

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 should have any questions concerning this checklist, please call 768-1972.

I. COMPANY INFORMATION:

Company Name	University of New Mexico		
Company Address	1 University of New Mexico Albuquerque, NM 87131		
Facility Name	Logan Hall		
Facility Address	2081 Redondo Dr. NE Albuquerque, NM 87131		
Contact Person	Casey Hall		
Contact Person Phone Number	505-277-0305		
Are these application review fees for an existing permitted source located within the City of Albuquerque or Bernalillo County?	(Yes)	**No**	
If yes, what is the permit number associated with this modification?	**Permit #** ATC 1981		
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)	**Yes**	(No)	

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.

Check All That Apply	Stationary Sources	Review Fee	Program Element
	Air Quality Notifications		
	AQN New Application	$562.00	2801
	AQN Technical Amendment	$307.00	2802
	AQN Transfer of a Prior Authorization	$307.00	2803
	Not Applicable	*See Sections Below*	
	Stationary Source Review Fees (Not Based on Proposed Allowable Emission Rate)		
	Source Registration required by 20.11.40 NMAC	$ 573.00	2401
✓	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	$ 1,146.00	2301
	Not Applicable	*See Sections Below*	
	Stationary Source Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)		
	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	$ 859.00	2302
	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	$ 1,719.00	2303
	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	$ 3,438.00	2304
	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	$ 5,157.00	2305
	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	$ 6,876.00	2306
	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	$8,594.00	2307
	Not Applicable	*See Section Above*	

Federal Program Review Fees (In addition to the Stationary Source Application Review Fees above)			
	40 CFR 60 - "New Source Performance Standards" (NSPS)	$ 1,146.00	2308
	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	$ 1,146.00	2309
	40 CFR 63 - (NESHAPs) Promulgated Standards	$ 1,146.00	2310
	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	$ 11,459.00	2311
	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	$ 5,730.00	2312
	20.11.60 NMAC, Non-Attainment Area Permit	$ 5,730.00	2313
	Not Applicable	*Not Applicable*	

III. MODIFICATION TO EXISTING PERMIT APPLICATION REVIEW FEES:

If the permit 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.

Check All That Apply	Modifications	Review Fee	Program Element
Modification Application Review Fees (Not Based on Proposed Allowable Emission Rate)			
	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	$ 1,146.00	2321
	Not Applicable	*See Sections Below*	
Modification Application Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)			
	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	$ 859.00	2322
	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	$ 1,719.00	2323
	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	$ 3,438.00	2324
	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	$ 5,157.00	2325
	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	$ 6,876.00	2326
	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	$ 8,594.00	2327
	Not Applicable	*See Section Above*	
Major Modifications Review Fees (In addition to the Modification Application Review Fees above)			
	20.11.60 NMAC, Permitting in Non-Attainment Areas	$ 5,730.00	2333
	20.11.61 NMAC, Prevention of Significant Deterioration	$ 5,730.00	2334
	Not Applicable	*Not Applicable*	
Federal Program Review Fees (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)			
✓	40 CFR 60 - "New Source Performance Standards" (NSPS)	$ 1,146.00	2328
	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	$ 1,146.00	2329
	40 CFR 63 - (NESHAPs) Promulgated Standards	$ 1,146.00	2330
	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	$11,459.00	2331
	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	$ 5,730.00	2332
	20.11.60 NMAC, Non-Attainment Area Permit	$ 5,730.00	2333
	Not Applicable	*Not Applicable*	

IV. ADMINISTRATIVE AND TECHNICAL REVISION APPLICATION REVIEW FEES:

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

Check One	Revision Type	Review Fee	Program Element
	Administrative Revisions	$ 250.00	2340
	Technical Revisions	$ 500.00	2341
	Not Applicable	*See Sections II, III or V*	

V. PORTABLE STATIONARY SOURCE RELOCATION FEES:

If the permit 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
	No New Air Dispersion Modeling Required	$ 500.00	2501
	New Air Dispersion Modeling Required	$ 750.00	2502
	Not Applicable	*See Sections II, III or V*	

VI. Please submit a check or money order in the amount shown for the total application review fee.

Section Totals	Review Fee Amount
Section II Total	$ 1146
Section III Total	$ 1146
Section IV Total	$ —
Section V Total	$ —
Total Application Review Fee	$ 2292

I, the undersigned, a responsible official of the applicant company, certify that to the best of my knowledge, the information stated on this checklist, give 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 3 **day of** May **20**19

Craig White — **Print Name**

Int. Sr. VP Fin. & Admin — **Print Title**

[signature] — **Signature**

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.

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 8:00am - 5:00pm Monday - Friday to:
3rd Floor, Suite 3023 - One Civic Plaza NW, Albuquerque, New Mexico 87103
(505) 768 – 1972 aqd@cabq.gov (505) 768 - 1977 (Fax)

20.11.41 NMAC Air Quality Permit Application
For
EMERGENCY DIESEL ENGINES
SUBJECT TO FEDERAL (USEPA) NEW SOURCE PERFORMANCE STANDARDS (NSPS)

Section 1. General Information

Date Submitted: ____ / ____ / 20____

1. Company Name: University of New Mexico Ph: (505) 277-7520 Email: cbhall4@unm.edu
2. Company Address: Scholes Hall 160, Bldg. 10 1800 Roma Ave NE City: Albuquerque State: NM Zip: 87131
3. Company Mailing Address (if different): MSC05 3350 1 University of New Mexico Albuquerque, NM Zip: 87131
4. Company Contact: Craig White Title: Senior Vice President for Finance and Administration Ph: (505) 277 - 7520 Email: cwhite@unm.edu
5. Facility Name: Logan Hall Facility Hours: 12 : 00 am or pm TO 12 : 00 am or pm
6. Facility Address: 2001 Redondo Dr. South NE Bldg #34 City: Albuquerque State: NM Zip: 87131
7. Local Business Mailing Address (if different): MSC07 4100 1 University of New Mexico Albuquerque, NM 87131 Email: cbhall4@unm.edu
8. Facility Environmental Contact: Casey Hall Title: Environmental Health Manager Ph: (___) 277 - 0305 Fax: (505) 277 - 9006
9. Email: cbhall4@unm.edu 10. Type of Business: Colleges, Universities, and Professional Schools
11. Environmental Consultant Name and Email Address (if applicable): ____
12. North American Industry Classification System (NAICS): 611310 13. Standard Industrial Classification (SIC): 8221
14. UTM coordinates (required): 351926 east 3883360 north 15. Facility Ph: (505) 272 - 4632 Fax: (505) 277 - 9006
16. Billing Contact: Casey Hall Title: Environmental Health Manager Ph: (505) 277 - 0305 Fax: (505) 277 - 9006
17. Billing Address: MSC07 4100 1 University of New Mexico City: Albuquerque State: NM Zip: 87131
18. Is this an Initial Installation; OR Modification of an Existing Unit: ____ Initial X Modification 19. Current or requested operating hrs/yr: 200
20. Is engine or genset installed: ____ Yes X No If yes, date installed: ____/____/____ If no, anticipated installation date: 9 / 15 /20 19

Provide an engine spec sheet and a detailed site plan or plat of the property where engine or genset is to be installed.

Section 2. Compression Ignition Internal Combustion Engine for Stationary Emergency Engines

Provide engine rating in horsepower (Hp) as determined by manufacturer's spec sheet.

Process Equipment Unit	Manufacturer	Model Number	Serial Number	Manufacturer Date	Modification Date	Engine Size In Horsepower (Hp)	Size of Generator In kilowatts (kW)
Example Engine	Unigen	B-2500	A56732195C-222	02/2008	N/A	375	N/A
Example Generator	Gentor	A56789B234	XYZ13247586	02/2008	N/A	N/A	280 kW
Engine	Cummins	4BTAA3.3-G7	TBD	TBD	N/A	99	N/A
Generator	Cummins	TBD	TBD	TBD	N/A	N/A	50

Section 3. Stack and Emissions Information

Stack Height Above Ground & Stack Diameter In Feet		Stack Temperature	Stack Flow Rate & Exit Direction
Example 18 feet – Height	0.42 feet – Diameter	625 °F	3,000 ft^3/min – Flow Rate Exit - upward

TBD	0.25 ft	831 F	454cfm-Flow Rate Exit-Up

Section 4. Potential Emission Rate (Uncontrolled Emissions)

Use manufacturer's data, compliance performance stack test data or the attached USEPA Emission Factors in grams per horsepower-hour (g/Hp-hr) associated with the Engine's Horsepower Rating and Model Year

Model Year	Pollutant	Emission Factors g/Hp-hr	TIMES	Actual Engine Hp	EQUALS	Emission In Grams Per Hour	DIVIDE	Grams Per Pound	EQUALS	Emission in Pounds Per Hour	TIMES	Potential Operating Hours Per Year	DIVIDE	Pounds Per Ton	EQUALS	Emission In Tons Per Year
EXAMPLE 2008	CO	2.6	x	375 Hp	=	975	+	453.6	=	2.15	x	8,760	+	2,000	=	9.4
	NO_x	0.3	x		=	112.5	+		=	0.25	x	8,760	+	2,000	=	1.1
	NMHC	0.14	x		=	52.5	+		=	0.12	x	8,760	+	2,000	=	0.53
	*NOx + NMHC	3.0	x		=	1,125	+		=	2.48	x	8,760	+	2,000	=	10.86
	**SO_x	0.93	x		=	348.8	+		=	0.77	x	8,760	+	2,000	=	3.37
	***PM	0.15	x		=	56.25	+		=	0.12	x	8,760	+	2,000	=	0.53
2019	CO	0.8	x	99	=	79.2	+	453.6	=	0.17	x	8,760	+	2,000	=	0.76
	NO_x	2.7	x	99	=	267.3	+	453.6	=	0.59	x	8,760	+	2,000	=	2.58
	NMHC	0.1	x	99	=	9.9	+	453.6	=	0.02	x	8,760	+	2,000	=	0.10
	*NOx + NMHC	3.2	x	99	=	316.8	+	453.6	=	0.70	x	8,760	+	2,000	=	3.06
	**SO_x	0.1	x	99	=	9.9	+	453.6	=	0.02	x	8,760	+	2,000	=	0.10
	***PM	0.29	x	99	=	28.71	+	453.6	=	0.06	x	8,760	+	2,000	=	0.28

* If the USEPA Emission Factor or manufacturer's data is given as combined NOx + NMHC, also provide individual emission factors for NOx and NMHC from the manufacturer or other approved methodology for estimating individual emission factors.
** Manufacturer's SOx factor shall be used when larger than the USEPA Emission Factor.
*** Particulate Matter (PM) emissions are considered to be < 1µm (micron). Therefore, PM emissions also reflect PM_{10} & $PM_{2.5}$.

Section 5. Potential to Emit (Requested allowable rate) (Controlled Emissions)

Transfer each pollutant Emission in Pounds Per Hour from column above to the Emission in Pounds Per Hour column below. Complete the equation after inserting the Requested Operating Hours Per Year. Pound Per Hour rate for each pollutant must be met if performance testing is requested.

Pollutant	Emission in Pounds Per Hour	TIMES	Requested Operating Hours Per Year	EQUALS	Pounds Per Year	DIVIDE	Pounds Per Ton	EQUALS	Emission In Tons Per Year
EXAMPLE CO	2.15	x	200	=	430	+	2,000	=	0.22
NO_x		x		=		+		=	
NMHC		x		=		+		=	
*NOx + NMHC	2.48	x	200	=	496	+	2,000	=	0.25
**SO_x	0.77	x	200	=	154	+	2,000	=	0.08
***PM	0.12	x	200	=	24	+	2,000	=	0.012
CO	0.17	x	200	=	34.92	+	2,000	=	0.017
NO_x	0.59	x	200	=	117.86	+	2,000	=	0.059
NMHC	0.02	x	200	=	4.37	+	2,000	=	0.002
*NOx + NMHC	0.70	x	200	=	139.68	+	2,000	=	0.070
**SO_x	0.02	x	200	=	4.37	+	2,000	=	0.002
***PM	0.06	x	200	=	12.66	+	2,000	=	0.006

I, the undersigned, a responsible officer of the applicant company, certify that to the best of my knowledge, the information stated on this application, together with associated drawings, specifications, and other data, give a true and complete representation of the existing, modified existing, or planned new stationary source with respect to air pollution sources and control equipment. I also understand that any significant omissions, errors, or misrepresentations in these data will be cause for revocation of part or all of the resulting source registration and air quality permit.

Craig White — Print Name

Sign Name

S.V.P. for Finance + Admin — Title

4/18/2019 — Date

City of Albuquerque

Environmental Health Department
Air Quality Program

Permit Application Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to ruling a submitted application complete each application submitted shall contain the required items listed below. **This checklist must be returned with the 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.

All applicants shall:

1. † Fill out and submit the *Pre-permit Application Meeting Request* form
   a. ☐ Attach a copy to this application

2. † Attend the pre-permit application meeting
   a. ☐ Attach a copy of the completed *Pre-permit Application Meeting Checklist* to this application

3. † Provide public notice to the appropriate parties
   a. ☐ Attach a copy of the completed *Notice of Intent to Construct* form to this form
      i. Neighborhood Association(s): Campus N.A., District 6 Coalition of N.A., District 7 Coalition of N.A., Silver Hill N.A., Spruce Park N.A., Sycamore N.A.
      ii. Coalition(s): _____
   b. ☐ Attach a copy of the completed *Public Sign Notice Guideline* form

4. Fill out and submit the *Permit Application*. All applications shall:

   A. ☐ be made on a form provided by the Department. Additional text, tables, calculations or clarifying information may also be attached to the form.

   B. ☐ at the time of application, include documentary proof that all applicable permit application review fees have been paid as required by 20 NMAC 11.02. Please refer to the attached permit application worksheet.

   C. ☐ contain the applicant's name, address, and the names and addresses of all other owners or operators of the emission sources.

D. ☐ contain the name, address, and phone number of a person to contact regarding questions about the facility.

E. ☐ indicate the date the application was completed and submitted

F. ☐ contain the company name, which identifies this particular site.

G. ☐ contain a written description of the facility and/or modification including all operations affecting air emissions.

H. ☐ contain the maximum and standard operating schedules for the source after completion of construction or modification in terms of hours per day, days per week, and weeks per year.

I. ☐ provide sufficient information to describe the quantities and nature of any regulated air contaminant (including any amount of a hazardous air pollutant) that the source will emit during:

- Normal operation
- Maximum operation
- Abnormal emissions from malfunction, start-up and shutdown

J. ☐ include anticipated operational needs to allow for reasonable operational scenarios to avoid delays from needing additional permitting in the future.

K. ☐ contain a map, such as a 7.5-minute USGS topographic quadrangle, showing the exact location of the source; and include physical address of the proposed source.

L. ☐ contain 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.

M. ☐ contain the UTM zone and UTM coordinates.

N. ☐ include the four digit Standard Industrialized Code (SIC) and the North American Industrial Classification System (NAICS).

O. ☐ contain the types and **potential emission rate** amounts of any regulated air contaminants the new source or modification will emit. Complete appropriate sections of the application; attachments can be used to supplement the application, but not replace it.

P. ☐ contain the types and **controlled** amounts of any regulated air contaminants the new source or modification will emit. Complete appropriate sections of the application; attachments can be used to supplement the application, but not replace it.

Q. ☐ contain the basis or source for each emission rate (include the manufacturer's specification sheets, AP-42 Section sheets, test data, or other data when used as the source).

R. ☐ contain all calculations used to estimate **potential emission rate** and **controlled** emissions.

S. ☐ contain the basis for the estimated control efficiencies and sufficient engineering data for verification of the control equipment operation, including if necessary, design drawings, test reports, and factors which affect the normal operation (e.g. limits to normal operation).

T. ☐ contain fuel data for each existing and/or proposed piece of fuel burning equipment.

U. ☐ contain the anticipated maximum production capacity of the entire facility and the requested production capacity after construction and/or modification.

V. ☐ contain the stack and exhaust gas parameters for all existing and proposed emission stacks.

W. ☐ provide an ambient impact analysis using a atmospheric dispersion model approved by the US Environmental Protection Agency (EPA), and the Department to demonstrate compliance with the ambient air quality standards for the City of Albuquerque and Bernalillo County (See 20.11.01 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.

X. ☐ contain a preliminary operational plan defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown.

Y. ☐ contain a process flow sheet, including a material balance, of all components of the facility that would be involved in routine operations. Indicate all emission points, including fugitive points.

Z. ☐ contain a full description, including all calculations and the basis for all control efficiencies presented, of the equipment to be used for air pollution control. This shall include a process flow sheet or, if the Department so requires, layout and assembly drawings, design plans, test reports and factors which affect the normal equipment operation, including control and/or process equipment operating limitations.

AA. ☐ contain description of the equipment or methods proposed by the applicant to be used for emission measurement.

BB. ☐ be signed under oath or affirmation by a corporate officer, authorized to bind the company into legal agreements, certifying to the best of his or her knowledge the truth of all information submitted.

Pre-Permit Application Meeting Request Form

Air Quality Program- Environmental Health Department

Please complete appropriate boxes and email to aqd@cabq.gov or mail to:

Environmental Health Department
Air Quality Program
P.O. Box 1293
Room 3047
Albuquerque, NM 87103

Name:	**Casey Hall**
Company/Organization:	University of New Mexico, Safety and Risk Services
Point of Contact: (phone number and email): **Preferred form of contact (circle one):** Phone E-mail	Phone: 505-277-0305 Email: cbhall4@unm.edu
Preferred meeting date/times:	4/5 – 9:00 AM, 4/8 9:00 AM, 4/10 9:00 AM
Description of Project:	UNM is currently in the planning stages of a project to replace or remove of several emergency generators around campus. The generators being replaced are as follows: • REG# 1972: 12 KW diesel EG replaced with 25 KW diesel EG • ATC# 1971: 70 KW natural gas EG replaced with 50 KW diesel EG • REG# 1970: 55 KW diesel EG replaced with 50 KW diesel EG • REG# 1971: 90 KW diesel EG replaced with 60 KW diesel EG The following generators UNM plans to remove without replacement: • REG# 1973: 27 hp natural gas EG • REG# 1974: 27 hp natural gas EG

City of Albuquerque

Environmental Health Department
Air Quality Program

Pre-Permit Application Meeting Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to submitting an application, the applicant shall contact the department in writing and request a pre-application meeting for information regarding the contents of the application and the application process. This checklist is provided to aid the applicant and **a copy must be submitted with the 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.

Name: Casey Hall
Contact: 505- 277- 0305
Company/Business: UNM

Fill out and submit a Pre-Permit Application Meeting Request form
⇒ Available online at http://www.cabq.gov/airquality

Emission Factors and Control Efficiencies
Notes: On spec sheet from manufacturers

Air Dispersion modeling guidelines and protocol
Notes: N/A

Department Policies
Notes:

Air quality permit fees
Notes: $2,292

Ver. 11/13

City of Albuquerque

Environmental Health Department
Air Quality Program

Pre-Permit Application Meeting Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to submitting an application, the applicant shall contact the department in writing and request a pre-application meeting for information regarding the contents of the application and the application process. This checklist is provided to aid the applicant and **a copy must be submitted with the application.**

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Notes: On spec sheet from manufacturers

Air Dispersion modeling guidelines and protocol
Notes: N/A

Department Policies
Notes:

Air quality permit fees
Notes: $2,292

Ver. 11/13

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov

City of Albuquerque

Environmental Health Department
Air Quality Program

Public Notice Sign Guidelines

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct 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.

Name: Casey Hall
Contact: 315-885-8683 / 505-277-0305 / cbhall4@unm.edu
Company/Business: University of New Mexico

☒ 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' above the existing ground surface to facilitate ease of viewing

☒ Attach a picture of the completed, properly posted sign to this document

☐ **Check here if the department has waived the sign posting requirement.**
Alternative public notice details:

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov

Notice of Intent to Construct

Under 20.11.41.13B NMAC, the owner/operator is required 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 with-in one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located* if they propose to construct or establish a new facility or make modifications to an existing facility that is subject to 20.11.41 NMAC – Construction Permits. **A copy of this form must be included with the application.**

Applicant's Name and Address: University of New Mexico, 1 University of New Mexico 87131

Owner / Operator's Name and Address: Same as Above

Actual or Estimated Date the Application will be submitted to the Department: 4/30/2019

Exact Location of the Source or Proposed Source: Logan Hall (Psychology) Building #34 2001 REDONDO DR. SOUTH N.E. ALBUQUERQUE, NM 87131

Description of the Source: 99HP Diesel Emergency Generator

Nature of the Business: University, Higher Education

Process or Change for which the permit is requested: Replacement of Emergency generator

Preliminary Estimate of the Maximum Quantities of each regulated air contaminant the source will emit:

Initial Construction Permit

	Pounds Per Hour (lbs/hr)	Tons Per Year (tpy)
CO	0.17	0.017
NOx	0.59	0.059
NOx + NMHC	0.70	0.07
VOC	0.02	0.002
SO_2	0.02	0.002
TSP	0.06	0.006
PM10	0.06	0.006
PM2.5	0.06	0.006
VHAP		

Net Changes In Emissions

(Only for permit Modifications or Technical Revisions)

	lbs/hr	tpy	Estimated Total TPY
CO	-15.24	-1.52	
NOx	-8.56	-0.86	
NOx + NMHC	-8.57	-0.86	
VOC	-0.1	-0.01	
SO_2	+0.02	+0.002	
TSP	-0.02	-0.02	
PM10	-0.02	-0.02	
PM2.5	-0.02	-0.02	
VHAP	+/-	+/-	

Maximum Operating Schedule: 200 hrs/yr

Normal Operating Schedule: 30 min/hr

Last Revised 10/25/2018

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Division
Phone: (505) 768-1972 Email: aqd@cabq.gov

Logan Hall - 2001 Redondo NE ATC 1981
87131

Mercator Projection
WGS84
USNG Zone 13SCU
CalTopo

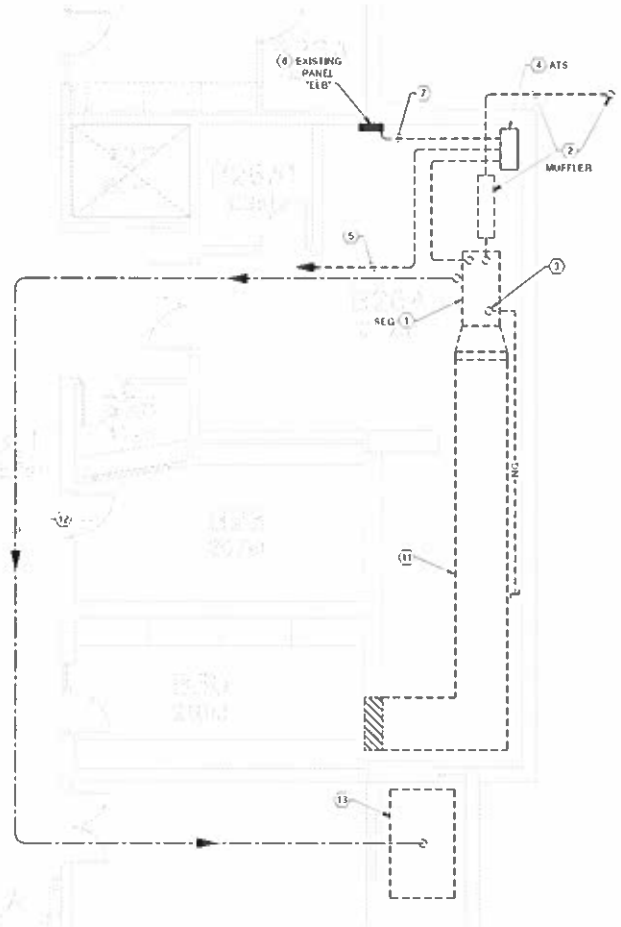
0.1 0.2 0.3 0.4 0.5 0.6 km
0.1 0.2 0.3 mi

Scale **1:3790** 1 inch = 316 feet

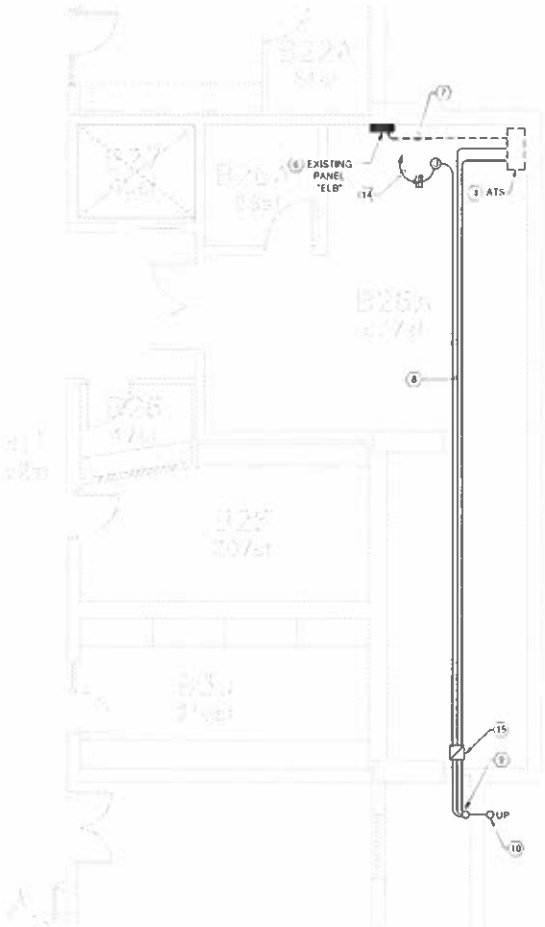
N MN 8°

Google Maps Logan Hall Psychology

Imagery ©2019 Google, Map data ©2019 Google 200 ft



N **DEMOLITION ELECTRICAL PLAN**
SCALE: 1/8"= 1'-0"



N **NEW WORK ELECTRICAL PLAN**
SCALE: 1/8"= 1'-0"

SHEET KEYNOTES

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4. [illegible]
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8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]
15. [illegible]

KEY PLAN

A C Engineering Enterprises, LLC
Albuquerque, New Mexico 87106
Phone
505.842.5787
Facsimile
505.842.5737

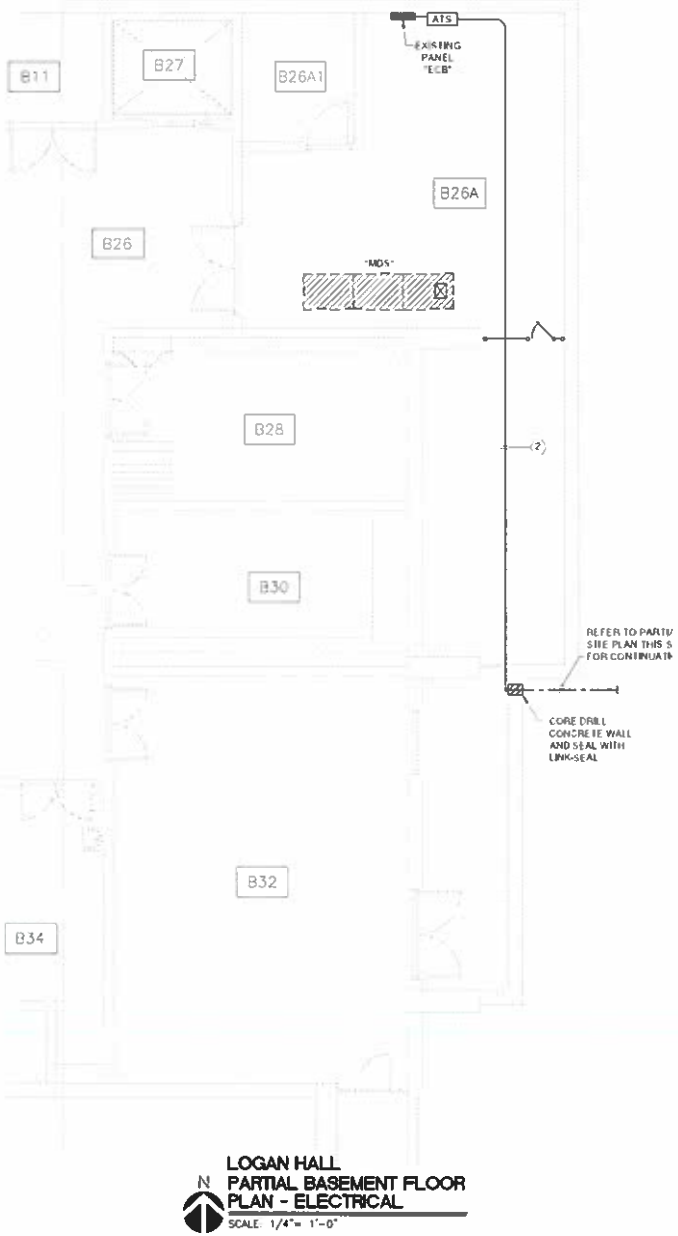
THE UNIVERSITY of NEW MEXICO

UNM HSC NORTH CAMPUS
AND UNM CENTRAL CAMPUS
REPLACE STANDBY
ENGINE GENERATORS

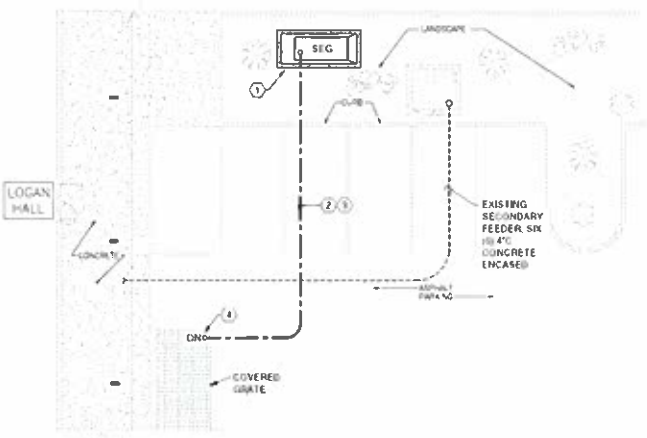
DEMOLITION & NEW WORK LOGAN HALL BASEMENT

E105

S:\ACLE\2018 Projects\18-024 UNM SEG Replacements_2018\E Revit\E105.dwg



LOGAN HALL
PARTIAL BASEMENT FLOOR PLAN - ELECTRICAL
SCALE: 1/4"= 1'-0"



N
PARTIAL SITE PLAN - ELECTRICAL
SCALE: 1/8"= 1'-0"

SHEET KEYNOTES

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]

A C Engineering Enterprises, LLC
[illegible]
Albuquerque, New Mexico 87108
Phone: 505.842.5767
Facsimile: 505.842.5797

THE UNIVERSITY of NEW MEXICO

UNM HSC NORTH CAMPUS
AND UNM CENTRAL CAMPUS
REPLACE STANDBY
ENGINE GENERATORS

PARTIAL ELECTRICAL SITE PLAN LOGAN HALL

E401

Martin J. Chávez, Mayor

John W. Soladay, Director

AIR QUALITY AUTHORITY-TO-CONSTRUCT PERMIT #1981
FACILITY CDS # NM/001/00141

Issued to: The Regents of the University of New Mexico
Scholes Hall 160, Building 10
1800 Roma Ave. NE
Albuquerque, New Mexico 87131

Certified Mail # 7006 2760 0005 1562 9163
Return Receipt Requested

Responsible Official: Mr. David W. Harris, Executive Vice President for Administration

Pursuant to the New Mexico Air Quality Control Act, Chapter 74, Article 2 New Mexico Statutes Annotated 1978 (as amended); the Joint Air Quality Control Board Ordinance, 9-5-1 to 9-5-99 ROA 1994; the Bernalillo County Joint Air Quality Control Board Ordinance, Bernalillo County Ordinance 94-5; the Albuquerque/Bernalillo County Air Quality Control Board (A/BCAQCB) Regulation Title 20, New Mexico Administrative Code (20 NMAC), Chapter 11, Part 40 (20.11.40 NMAC), Air Contaminant Source Registration; and A/BCAQCB Regulation Title 20, NMAC, Chapter 11, Part 41 (20.11.41 NMAC), Authority-To-Construct; **The Regents of the University of New Mexico ("Company" or "Permittee")** is hereby issued this **AUTHORITY-TO-CONSTRUCT PERMIT** and authorized to operate the following equipment at:

Facility/Location	Facility Process Description	SIC	NAICS
Logan Hall (Psychology) 2001 Redondo Dr. South NE Albuquerque, NM UTM 351929E, 3883364N	One (1) 460 hp Natural Gas-Fired Emergency Generator	8221	611310

This **AUTHORITY-TO-CONSTRUCT** permit number 1981 has been issued based on the review of the application received by the Albuquerque Environmental Health Department (Department), Air Quality Division (Division) on November 26, 2008, which was deemed complete on December 16, 2008, and on the National Ambient Air Quality Standards, New Mexico Ambient Air Quality Standards, and Air Quality Control Regulations for Albuquerque/Bernalillo County, as amended. As these standards and regulations are updated or amended, the applicable changes will be incorporated into permit number 1981 and will apply to the facility.

Issued on the 20th day of February, 2009

Isreal Tavarez

Isreal Tavarez, Environmental Engineering Manager
Air Quality Programs
Air Quality Division
Environmental Health Department
City of Albuquerque

2. **Unit Emission Limits**-- Condition 2, Unit Emission Limits, has been placed in the permit in accordance with 20.11.41.18.B NMAC, to allow the Division to determine compliance with the terms and conditions of the permit. These were the emission rates stated in the permit application and are the basis of the Division's review. Compliance will be based on Division inspections of the facility.

a) Unit 1 shall not exceed the emissions rates stated in the table below. Ton per year (tpy) emission limits shall be based on a 12-month rolling total.

Unit Emission Limits

Unit #	NO_x lb/hr	NO_x tpy	CO lb/hr	CO tpy	SO_2 lb/hr	SO_2 tpy	VOC lb/hr	VOC tpy	TSP lb/hr	TSP tpy	PM_{10} lb/hr	PM_{10} tpy	$PM_{2.5}$ lb/hr	$PM_{2.5}$ tpy	Percent Opacity	Record-Keeping Requirements[1]	Monitoring Requirements[1]	Reporting Requirements[1]	Compliance Testing
1	9.15	0.9	15.4	1.5	0.002	0.0002	0.12	0.01	0.08	0.008	0.08	0.008	0.08	0.008	5%	Yes	Yes	Yes	No
Totals	**9.15**	**0.9**	**15.4**	**1.5**	**0.002**	**0.0002**	**0.12**	**0.01**	**0.08**	**0.008**	**0.08**	**0.008**	**0.08**	**0.008**					

[1] *Refer to Conditions 3, 4 and 5 for unit specific record keeping, monitoring, and reporting requirements.*

b) For Unit 1, the NOx and CO pound per hour (lb/hr) emission rates shall be based on a 3-hour average.

c) For Unit 1, the SO_2, VOC, TSP, PM_{10} and $PM_{2.5}$ lb/hr emission rates are for informational purposes and shall be used to determine tpy emissions.

d) Compliance with all opacity restrictions specified in Condition 2(e) below shall be considered compliance with the hourly (lb/hr) TSP, PM10, and PM2.5 emissions limit.

e) Except for the initial 10 seconds from startup, Unit 1 shall not cause or allow visible emissions to exceed 5 percent opacity, 3-minute time-averaged pursuant to 20.11.5.13.B NMAC.

3. **Record keeping**-- Condition 3 has been placed in the permit in accordance with 20.11.41.18.B(8) NMAC, to allow the Division to determine compliance with the terms and conditions of the permit. Compliance will be based on Division inspection of records and logs.

a) Maintain an accurate monthly log for Unit 1's hours of operation, both as a monthly total and as a 12- month rolling total.

This information shall be retained for the most recent two-year period and shall be made available to Division personnel upon request.

e) For all compliance tests, the test protocol and compliance test report shall conform to the standard format specified by the Division.

f) All compliance testing shall be conducted at ninety (90%) percent of the unit's permitted capacity or greater to demonstrate compliance with the permitted emission limits. Compliance testing at other than 90% production levels shall be performed at the Division's request and/or approval.

g) One copy of the compliance test results shall be submitted to the Division Enforcement Section within thirty (30) days after the completion of testing.

Unit Specific Compliance Testing

Emission Unit Number	Initial Compliance Test	Frequency of Compliance Test
1	Not Required*	Not Required*

* Compliance tests have not been imposed for this unit at this time, but may be reimposed if inspections of the source indicate non-compliance with permit conditions.

7. **Modifications**-- Condition 7 has been placed in the permit in accordance with 20.11.41.7.H NMAC, to enable the Division to review proposed changes to the facility which may constitute a permit modification prior to such changes. Compliance will be based on Division inspections and the submittal of a new permit application for any modification.

   a) Any future physical changes or changes in the method of operation which results in an increase in the pre-controlled emission rate may constitute a modification as defined by 20.11.41.7.H NMAC. No modification shall begin prior to issuance of a permit. Modifications or revisions to this permit shall be processed in accordance with 20.11.41 NMAC.

8. **Compliance Assurance/Enforcement**-- All air pollution emitting facilities within Bernalillo County are subject to all applicable Albuquerque/Bernalillo County Air Quality Control Regulations, whether listed in this permit or not.

   a) The issuance of a permit or registration does not relieve the facility from responsibility of complying with the provisions of the Air Quality Control Act, and the laws and regulations in force pursuant to the Act. (20.11.41.17 NMAC).

   b) Any conditions imposed upon the facility as the result of an Authority-To-Construct Permit or any other permit issued by the Division shall be enforceable to the same extent as a regulation of the Board. (20.11.41.18.C NMAC).

   c) Whenever two or more parts of the Air Quality Control Act, or the laws and regulations in force pursuant to the Act, limit, control or regulate the emissions of a particular air contaminant, the more restrictive or stringent shall govern. (20.11.1.14 NMAC).

   d) The Division is authorized to issue a compliance order requiring compliance and assessing a civil penalty not to exceed Fifteen Thousand and no/100 Dollars ($15,000) per day of noncompliance for each violation, commence a civil action in district court for appropriate relief, including a temporary and permanent injunction. (74-2-12 NMSA).

   e) Scheduled and Unscheduled Inspection (74-2-13 NMSA) – The Division will conduct scheduled and unscheduled inspections to insure compliance with the Air Quality Control Act, and the laws and regulations in force pursuant to the Act, and this Permit, and, upon presentation of credentials:

Facility Wide Fee Pollutants
(Tons Per Year)

Fee Pollutant	Facility Wide Fee Pollutant Totals in Tons per Year (TPY)
Carbon Monoxide (CO)	2
Oxides of Nitrogen (NO_x)	1
Total Suspended Particulate Matter (TSP)	0
Oxides of Sulfur (SO_x)	0
Volatile Organic Compounds (VOC)	0
Facility Wide Fee Pollutants Totals (TPY)	**3**

II. ADDITIONAL REQUIREMENTS

1. **Permit Cancellation**-- The Division may cancel any permit if the construction or modification is not commenced within one (1) year from the date of issuance or if, during the construction or modification, work is suspended for a total of one (1) year pursuant to 20.11.41.19 NMAC.

   Application for permit modifications, relocation notices and items listed under **ADDITIONAL REQUIREMENTS** shall be submitted to:

   Albuquerque Environmental Health Department
   Air Quality Division
   Permitting Section
   P.O. Box 1293
   Albuquerque, New Mexico 87103

   Test protocols, compliance tests and all reports shall be submitted to:

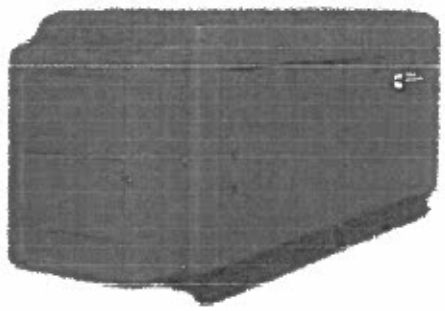
   Albuquerque Environmental Health Department
   Air Quality Division
   Compliance Section
   Attention: Compliance Officer
   P.O. Box 1293
   Albuquerque, New Mexico 87103

50kW
- Mech Engrg
- Logan

Specification sheet

Diesel generator set

50 kW - 60 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

Cummins 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. Aluminum 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.

	Standby rating 60 Hz		Prime rating 60 Hz		Data sheets 60 Hz
Model	kW	kVA	kW	kVA	
C50 D6	50.0	62.5	45.0	56.25	NAD-5863
C60 D6	60.0	75.0	54.0	67.50	NAD-5864

Generator set specifications

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

Engine specifications

Design	Turbocharged and charge air-cooled
Bore	95.0 mm (3.74 in.)
Stroke	115.0 mm (4.53 in.)
Displacement	3.26 litres (199 in^3)
Cylinder block	Cast iron, in-line, 4 cylinder
Battery capacity	550 amps at ambient temperature of 0 °F to 32 °F (-18 °C to 0 °C)
Battery charging alternator	50 amps
Starting voltage	12 volt, negative ground
Fuel system	Direct injection, number 2 diesel fuel, fuel filter, electric fuel shut off
Fuel filter	Single element, 10 micron filtration, spin-on fuel filter with water separator
Air cleaner type	Dry replaceable element
Lube oil filter type(s)	Spin-on, full flow
Standard cooling system	50 °C (122 °F) ambient cooling system
Rated speed	1800 rpm

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 PMG 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)	3%

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 – normal or heavy duty
- Shut down – low oil pressure
- Extension – oil drain
- 120 V 1000 W coolant heater

Alternator
- One size up alternator
- PMG
- 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

Enclosure
- Aluminum 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
- Coolant heater – 120 V, 1 Ph

Exhaust system
- Exhaust connector - NPT

Generator set application
- Battery rack
- Battery rack, heavy duty

Generator set data sheet

Model:	**C50 D6**
Frequency:	**60 Hz**
Fuel type:	**Diesel**
kW rating:	**50 Standby** **45 Prime**
Emissions level:	**EPA Emission Stationary Standby**

Exhaust emission data sheet:	**EDS-1186**
Exhaust emission compliance sheet:	**EPA-1255**
Sound performance data sheet:	**MSP-1184**
Cooling performance data sheet:	**MCP-266**
Prototype test summary data sheet:	**PTS-430**

Fuel consumption	**Standby**				**Prime**			
	kW (kVA)				**kW (kVA)**			
Ratings	50 (62.5)				45 (56.25)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
US gph	1.49	2.38	3.30	4.25	1.35	2.16	3.00	3.86
L/hr	5.64	9.01	12.49	16.09	5.11	8.18	11.36	14.61

Engine	**Standby rating**	**Prime rating**
Engine manufacturer	Cummins Inc.	
Engine model	4BTAA3.3-G7	
Configuration	Cast iron, in-line, 4 cylinder	
Aspiration	Turbocharged and charge air-cooled	
Gross engine power output, kWm (bhp)	73.8 (99)	67.1 (90)
BMEP at set rated load, kPa (psi)	1285.87 (186.5)	1167.9 (169.4)
Bore, mm (in.)	95 (3.74)	
Stroke, mm (in.)	115 (4.53)	
Rated speed, rpm	1800	
Piston speed, m/s (ft/min)	6.9 (1359)	
Compression ratio	17.3:1	
Lube oil capacity, L (qt)	7.9 (8.35)	
Overspeed limit, rpm	2250	

Fuel flow

Maximum fuel flow, L/hr (US gph)	56.39 (14.9)
Maximum fuel inlet restriction with clean filter, mm Hg (in Hg)	58.42 (2.3)
Maximum return restriction, mm Hg (in Hg)	375.92 (14.8)

Air	Standby rating	Prime rating
Combustion air, m^3/min (scfm)	5.26 (186)	5.09 (180)
Maximum air cleaner restriction with clean filter, kPa (in H_2O)	1.25 (5)	
Alternator cooling air, m^3/min (cfm)	16.84 (595)	

Exhaust

Exhaust flow at set rated load, m^3/min (cfm)	12.85 (454)	12 (424)
Exhaust temperature, °C (°F)	444 (831)	419.4 (787)
Maximum back pressure, kPa (in H_2O)	10 (40.2)	10 (40.2)
Actual exhaust back pressure with CPG fitted muffler, kPa (in H_2O)	7.8 (31.3)	7.23 (29)

Standard set-mounted radiator cooling[1]

Ambient design, °C (°F)	50 (122)	
Fan load, kW_m (HP)	2.83 (3.8)	
Coolant capacity (with radiator), L (US gal)	14.76 (3.9)	
Cooling system air flow, m^3/min (scfm)	93.16 (3290)	
Total heat rejection, MJ/min (Btu/min)	2.56 (2431.7)	2.347 (2225)
Maximum cooling air flow static restriction, kPa (in H_2O)	0.12 (0.5)	

Weights[2]

Unit dry weight kgs (lbs)	698 (1538)
Unit wet weight kgs (lbs)	719 (1584)

Notes:

[1] For non-standard remote installations contact your local Cummins representative.

[2] Weights represent a set with standard features. See outline drawing for weights of other configurations.

Derating factors

Standby	Engine power available up to 1600 m (5,512 ft) and ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 6% per 300 m (985 ft) and 10% per 10 °C (18 °F).
Prime	Engine power available up to 3050 m (10,000 ft) and ambient temperatures up to 40 °C (104 °F). Above these conditions, derate at 6% per 300 m (985 ft) and 11% per 10 °C (18 °F).

Ratings definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):	Base Load (Continuous) Power (COP):
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.

Alternator data

Standard alternators		Single phase table	Three phase table			
Maximum temperature rise above 40 °C ambient		120 °C	120 °C	120 °C	120 °C	120 °C
Feature code		B949-2	B946-2	B986-2	B943-2	B952-2
Alternator data sheet number		ADS-582	ADS-581	ADS-581	ADS-581	ADS-581
Voltage ranges		120/240	120/208	120/240	277/480	347/600
Voltage feature code		R104-2	R098-2	R106-2	R002-2	R114-2
Surge kW		57.54	58.33	58.33	58.33	58.33
Motor starting kVA (at 90% sustained voltage)	Shunt	95	119	119	119	119
	PMG	150	181	181	181	181
Full load current amps at Standby rating		208	173.68	150.5	75.26	60.2

Optional alternators for improved motor-starting capability		Single phase table	Three phase table			
Maximum temperature rise above 40 °C ambient		120 °C	120 °C	120 °C	120 °C	120 °C
Feature code		B961-2	B958-2	B987-2	B955-2	B964-2
Alternator data sheet number		ADS-583	ADS-582	ADS-582	ADS-582	ADS-582
Voltage ranges		120/240	120/208	120/240	277/480	347/600
Voltage feature code		R104-2	R098-2	R106-2	R002-2	R114-2
Surge kW		59.19	59.39	59.39	59.39	59.39
Motor starting kVA (at 90% sustained voltage)	Shunt	170	212	95	212	212
	PMG	180	225	150	225	225
Full load current amps at Standby rating		208	173.68	150.5	75.26	60.2

Notes:

[1] Single phase power can be taken from a three phase generator set at up to 2/3 set rated 3-phase kW at 1.0 power factor. Also see Note 3 below.

[2] The broad range alternators can supply single phase output up to 2/3 set rated 3-phase kW at 1.0 power factor.

[3] The extended stack (full single phase output) and 4 lead alternators can supply single phase output up to full set rated 3-phase kW at 1.0 power factor.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

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

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NAD 5864 EN (02/18)

Exhaust emission data sheet
C50 D6
60 Hz Diesel generator set
EPA emission

Engine information:			
Model:	Cummins 4BTAA3.3-G7	Bore:	3.74 in. (95 mm)
Type:	4 cycle, in-line, 4 cylinder diesel	Stroke:	4.53 in. (115 mm)
Aspiration:	Turbocharged and charge air-cooled	Displacement:	199 cu. in. (3.3 liters)
Compression ratio:	17.3:1		
Emission control device:			

Performance data	1/4 Standby	1/2 Standby	3/4 Standby	Full Standby
BHP @ 1800 RPM (60 Hz)	20.6	41.3	61.9	82.5
Fuel consumption (gal/Hr)	1.9	2.8	3.8	4.3
Exhaust gas flow (CFM)	219.8	335.3	435.4	531.5
Exhaust gas temperature (°F)	734.3	827.3	864	913.7
Exhaust emission data				
HC (Total unburned hydrocarbons)	0.6	0.2	0.1	0.1
NOx (Oxides of nitrogen as NO2)	3.3	2.5	2.7	3.2
CO (Carbon monoxide)	2	1.2	0.7	0.3
PM (Particular Matter)	0.4	0.2	0.1	0.1
SO2 (Sulfur dioxide)	0.2	0.2	0.1	0.1
Smoke (Bosch)	0.7	0.6	0.5	0.5

All values are Grams per HP - Hour

Test conditions

Data is representative of steady-state engine speed (± 25 RPM) at designated genset loads. Pressures, temperatures, and emission rates were stabilized.

Fuel specification:	ASTM D975 No. 2-D diesel fuel with 0.03-0.05% sulfur content (by weight), and 40-48 cetane number.
Fuel temperature:	99 ± 9 °F (at fuel pump inlet)
Intake air temperature:	77 ± 9 °F
Barometric pressure:	29.6 ± 1 in. Hg
Humidity:	NOx measurement corrected to 75 grains H2O/lb dry air
Reference standard:	ISO 8178

The NOx, HC, CO and PM emission data tabulated here are representative of test data taken from a single engine under the test conditions shown above. Data for the other components are estimated. These data are subjected to instrumentation and engine-to-engine variability. Field emission test data are not guaranteed to these levels. Actual field test results may vary due to test site conditions, installation, fuel specification, test procedures and instrumentation. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may results in elevated emission levels.

2019 EPA Tier 3 Exhaust Emission Compliance Statement
C50 D6
Stationary Emergency
60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with Tier 3 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:	Cummins Inc.
EPA Certificate Number:	KCEXL03.3CAA-048
Effective Date:	11/27/2018
Date Issued:	11/27/2018
EPA Engine Family (Cummins Emissions Family):	KCEXL03.3CAA

Engine Information:

Model:	4BTAA3.3-G7	Bore:	3.74 in. (95 mm)
Engine Nameplate HP:	99	Stroke:	4.53 in. (115 mm)
Type:	4 Cycle, In-line, 4 Cylinder Diesel	Displacement:	199 cu. in. (3.3 liters)
Aspiration:	Turbocharged & Charge Air Cooled	Compression ratio:	17.3:1
Emission Control Device:		Exhaust stack diameter:	3 in. (76 mm)

Diesel Fuel Emission Limits

D2 Cycle Exhaust Emissions

	Grams per BHP-hr			Grams per kWm-hr		
	NO_X + NMHC	CO	PM	NO_X + NMHC	CO	PM
Test Results	3.2	0.8	0.29	4.3	1.0	0.39
EPA Emissions Limit	3.5	3.7	0.30	4.7	5.0	0.40

Test methods: EPA nonroad emissions recorded per 40 CFR 89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for constant speed engines (ref. ISO8178-4, D2)

Diesel fuel specifications: 40-48 Cetane number, Reference: ASTM D975 No. 2-D, 300-500 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