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
ENVIRONMENTAL HEALTH
16 DEC 21 PM 2:30

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: 12 / 21 / 20 16

1. Company Name: Heritage Hotels and Resorts Ph: (505)314-5152 Email: kswanson@hhandr.com
2. Company Address: 201 3RD St NW Suite 1140 City: Albuquerque State: New Mexico Zip:87102
3. Company Mailing Address (if different): Same Zip: Same
4. Company Contact: Adrian Perez Title: President Ph: (505)314-5152 Email:kswanson@hhandr.com
5. Facility Name: Hotel Chaco Facility Hours:12:00 am or pm TO 12:00 am (24 hours a day)
6. Facility Address:2000 Bellamah Ave NW City: Albuquerque State: NM Zip:87120
7. Local Business Mailing Address (if different): 201 3rd St NW Albuquerque, New Mexico 87120 Email: pnieto@hhandr.com
8. Facility Environmental Contact: Pete Nieto Title: Corporate Director of Facilities Ph: (505)270-1346 Fax:(505)212-9255
9. Email:pnieto@hhandr.com 10. Type of Business:Hotel
11. Environmental Consultant Name and Email Address (if applicable):
12. North American Industry Classification System (NAICS): 721110 13. Standard Industrial Classification (SIC): 701
14. UTM coordinates (required): 347925.00 east 3885489.00 north 15. Facility Ph: ( ) - Fax:( ) -
16. Billing Contact: Doris Nelson Title: Accounts Payable Ph: (505)212-9153 Fax:(505)212-9255
17. Billing Address: 201 3rd St NW City: Albuquerque State: New Mexico Zip:87102
18. Is this an Initial Installation; OR Modification of an Existing Unit: X Initial ____ Modification 19. Current or requested operating hrs/yr: 500
20. Is engine or genset installed: X Yes ____ No If yes, date installed: 03 / 16 /16 If no, anticipated installation date: ____/____/20___

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	Caterpillar	C18	FST01373	11/2015	N/A	839	N/A
Generator	Caterpillar	SR5	G7A05460	11/2015	N/A	N/A	550

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 ft³/min – Flow Rate Exit - upward**

Construction, Installation, or Operation of an engine or genset shall not take place until a 20.11.41 NMAC Air Quality permit is issued.

8 feet	0.66 Feet	969	4552CFM Exit - upward

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
	CO	2.60	x	839	=	2181.4	÷	453.6	=	4.81	x	8,760	÷	2,000	=	21.06
	NO_x	4.54	x	839	=	3805.4	÷	453.6	=	8.39	x	8,760	÷	2,000	=	36.75
	NMHC	0.24	x	839	=	200.3	÷	453.6	=	0.44	x	8,760	÷	2,000	=	1.93
	*NOx + NMHC	4.77	x	839	=	4005.7	÷	453.6	=	8.83	x	8,760	÷	2,000	=	38.68
	**SO_x	0.0055	x	839	=	4.6	÷	453.6	=	0.010	x	8,760	÷	2,000	=	0.04
	***PM	0.15	x	839	=	125.2	÷	453.6	=	0.28	x	8,760	÷	2,000	=	1.21

* 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 he 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	4.81	x	500	=	2404.54	÷	2,000	=	1.20
NO_x	8.39	x	500	=	4194.70	÷	2,000	=	2.10
NMHC	0.44	x	500	=	220.77	÷	2,000	=	0.11
*NOx + NMHC	8.83	x	500	=	4415.48	÷	2,000	=	2.21
**SO_x	0.010	x	500	=	5.09	÷	2,000	=	0.003
***PM	0.28	x	500	=	137.98	÷	2,000	=	0.07

, the undersigned, a responsible officer of the applicant company, certify that to the best of my knowledge, the information stated on this application, together vith 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.

Print Name	Sign Name	Title	Date
Raymond Pahl		Project Eng.	12/19/2016

Construction, Installation, or Operation of an engine or genset shall not take place until a 20.11.41 NMAC Air Quality permit is issued.

Federal New Source Performance Standards (NSPS) for Stationary EMERGENCY Diesel Engines (40CFR 60.4202 & 60.4205) in Grams Per Horsepower Hour (g/hp-hr) for Engines with a displacement of < 10 Liters Per Cylinder

Horsepower / kW	Tier (CFR Section)	Year Of Manufacture	CO (g/hp-hr)	NOx[1] (g/hp-hr)	NMHC[1] (g/hp-hr)	NOx + NMHC[1] (g/hp-hr)	SOx[2] (g/hp-hr)	Particulate Matter (PM) (g/hp-hr)	Notes
< 11 Hp < 8 kW	1 (60.4205)	Pre 2007[3]	6.0			7.8	0.93*	0.75	* Use AP-42 Section 3.3 SOx factors if <600Hp and Section 3.4 if >600Hp, as shown on this table, or manufacturer's factors. Manufacturer's factors shall be used when larger than AP-42 factors.
	2 (60.4202) - (89.112)	2007	6.0			5.6	0.93*	0.6	
	4 (60.4202)	2008 +	6.0			5.6	0.93*	0.3	
≥ 11 Hp < 25 Hp	1 (60.4205)	Pre 2007[3]	4.9			7.1	0.93*	0.6	
	2 (60.4202) - (89.112)	2007	4.9			5.6	0.93*	0.6	
≥ 8 kW < 19 kW	4 (60.4202)	2008 +	4.9			5.6	0.93*	0.3	
≥ 25 Hp < 50 Hp	1 (60.4205)	Pre 2007[3]	4.1			7.1	0.93*	0.6	
	2 (60.4202) - (89.112)	2007	4.1			5.6	0.93*	0.45	
≥ 19 kW < 37 kW	4 (60.4202)	2008 +	4.1			5.6	0.93*	0.22	
≥ 50 Hp < 100 Hp	1 (60.4205)	Pre 2007[3]	3.03**	6.9	1.12**		0.93*	1.0**	** Use AP-42 Section 3.3 factors for CO, NMHC, and PM as shown on this table, or manufacturer's factors. Manufacturer's factors shall be used when larger than AP-42 factors.
	2 (60.4202) - (89.112)	2007	3.7			5.6	0.93*	0.3	
≥ 37 kW < 75 kW	3 (60.4202) - (89.112)	2008 +	3.7			3.5	0.93*	0.3	
≥ 100 Hp < 175 Hp	1 (60.4205)	Pre 2007[3]	3.03**	6.9	1.12**		0.93*	1.0**	
≥ 75 kW < 130 kW	3 (60.4202) - (89.112)	2007 +	3.7			3.0	0.93*	0.22	
≥ 175 Hp ≤ 750 Hp	1 (60.4205)	Pre 2007[3]	8.5	6.9	1.0		0.93*for < 600Hp or 3.67* for > 600Hp	0.4	
≥ 130 kW ≤ 560 kW	3 (60.4202) - (89.112)	2007 +	2.6			3.0		0.15	
> 750 Hp	1 (60.4205)	Pre 2007[3]	8.5	6.9	1.0			0.4	
	3 (60.4202) - (89.112)	2007***	2.6			4.8	3.67	0.15	
> 560 kW		*** 2007 – 2010 Model Year Engines > 3,000 Hp shall meet the Pre 2007 standards and beginning with the 2011 model year, Engines > 3,000 Hp shall meet the 2007 standards							

[1] When an emission factor is given for combined NOx + NMHC, individual emission factors for NOx and NMHC must be obtained from the manufacturer.

[2] SOx emission factors shall be based on AP-42 Section 3.3 for engines less than (<) 600 Hp and Section 3.4 for engines greater than (>) 600 Hp, or manufacturer's factors since SOx emission standards were not established for non-road diesel engine rulemaking. Manufacturer's factors shall be used when larger than the AP-42 factors. For engines > 600 Hp, the "S" multiplier is 0.05 (5%) if calculating SOx to reflect the current low sulfur diesel fuel standard of 500 ppm. Percent sulfur in diesel fuel transitions to Ultra Low Sulfur Diesel (15 ppm) by October 2010. For engines operated after October 2010, with a year of manufacture of 2010 or later, the "S" multiplier is 0.0015 (0.15%) if calculating SOx to reflect the proposed new standard.

[3] Pre 2007 means each stationary Compression Ignition Internal Combustion Engine (CI ICE) whose construction, modification or reconstruction commenced after July 11, 2005. The date of construction is the date the engine is ordered by the owner or operator. Stationary CI ICE manufactured prior to April 1, 2006, that are not fire pump engines are not subject to NSPS, unless the engines are modified or reconstructed after July 11, 2005. A modified or reconstructed CI ICE must meet the emission standards for the model year in which the engine was originally new, not the year the engine is modified or reconstructed (Preamble language – Section II. E).

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: _____
Contact: _____
Company/Business: _____

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:

✓

Department Policies
Notes:

✓

Air quality permit fees
Notes:

✓

Ver. 11/13

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

Public notice requirements

- Replacement Part 41 Implementation
  - *20.11.41.*13 B. Applicant's public notice requirements
    - Providing public notice to neighborhood association/coalitions
      - Neighborhood association:_____
      - Coalition: _____

      Notes: Received 12/22/14

    - Posting and maintaining a weather-proof sign

      Notes:

Regulatory timelines

- 30 days to rule application complete
- 90 days to issue completed permit
- Additional time allotted if there is significant public interest and/or a significant air quality issue
  - Public Information Hearing
  - Complex permitting action

Notes:

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: Heritage Hotel
Contact: Raymond Pohl
Company/Business: _____

☑ 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.

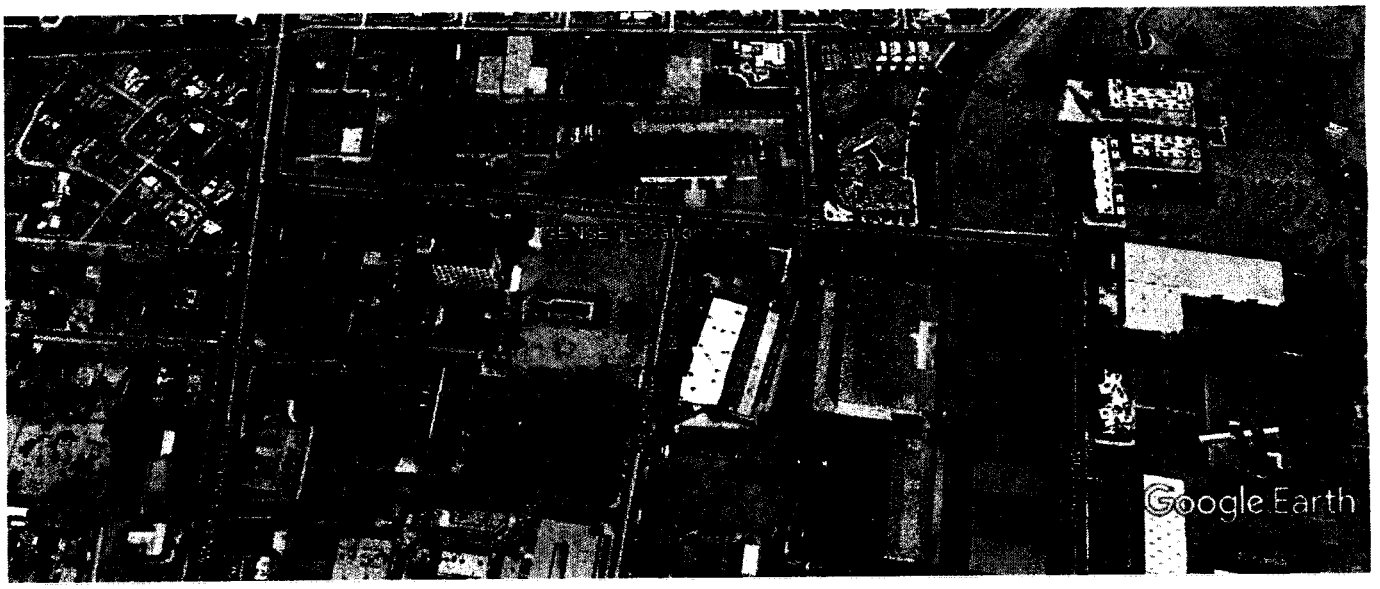
☑ The lower edge of the sign board should be mounted a minimum of 2' above the existing ground surface to facilitate ease of viewing

☑ 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:

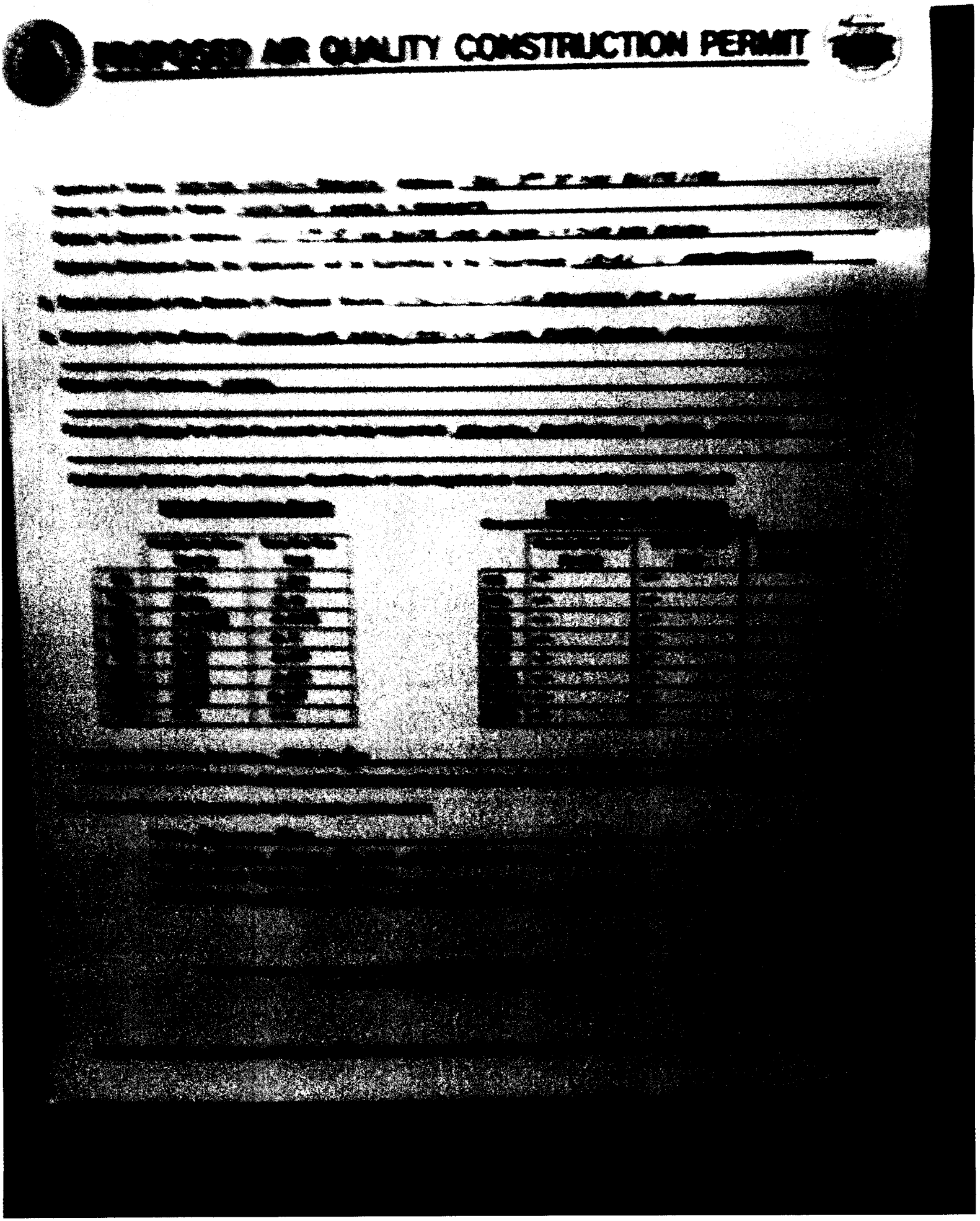
City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov

Google Earth



GENSET Location

[redacted] AIR QUALITY CONSTRUCTION PERMIT




SHC
5-792-5103


ISHC
Installation Service Heating Cooling
505-792-5103


AHERN
PROPOSED AIR QUALITY CONSTRUCTION PERMIT
HC
Service · Heating · Cooling
505-792-5103

PROPOSED AIR QUALITY CONSTRUCTION PERMIT

1. Applicant's Name: HERITAGE HOTELS & RESORTS Address: 201 3RD ST NW SUITE 1140
   Owner or Operator's Name: HERITAGE HOTELS & RESORTS
   Owner or Operator's Address: 201 3RD ST NW SUITE 1140 ALBUQUERQUE NM 87120
   Actual or Estimated Date the Application will be Submitted to the Department: 12-22-16
2. Exact Location of the Source or Proposed Source: HOTEL CHACO 2000 BELLAMAH AVE NW
3. Description of the Source: CATERPILLAR 839 hp / 550 kW DIESEL FIRED EMERG. GENERATOR
   Nature of the Business: HOTEL
   Process or Change for which the permit is being requested: STANDBY EMERGENCY DIESEL GENSET
   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	4.81	1.20
NOx	8.39	2.10
SO2	0.0055	0.003
VOC	0.24	0.11
TSP	0.15	0.07
PM10	0.15	0.07
PM2.5	0.15	0.07
VHAP	NA	NA

Net Changes in Emissions
(for permit Modifications or Technical Revisions)

	Pounds Per Hour (lbs/hr)	Tons Per Year (tpy)	Estimated Total Tons Per Year
CO	+/-	+/-	
NOx	+/-	+/-	
SO2	+/-	+/-	
VOC	+/-	+/-	
TSP	+/-	+/-	
PM10	+/-	+/-	
PM2.5	+/-	+/-	
VHAP	+/-	+/-	

4. Maximum Operating Schedule: 500 hr/yr
   Normal Operating Schedule: ONLY IN LIEU OF LOSS OF COMMERCIAL POWER AND FOR MAINT. TESTING
5. Current Contact Information for Comments and Inquires:
   Name: RAYMOND POHL
   Address: 4000 OSUNA RD. NE ABQ. NM 87109
   Phone Number: (505) 235-7654
   E-Mail Address: pohl.raymond@wagnerequipment.com

City of Albuquerque - Environmental Health Department - Air Quality Program - Stationary Source Permitting
Phone Number (505) 768-1972 E-Mail Address: eqd@cabq.gov

THIS SIGN SHALL REMAIN POSTED UNTIL THE DEPARTMENT TAKES FINAL ACTION ON THE PERMIT APPLICATION

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: Heritage Hotels and Resorts

Owner / Operator's Name and Address: 201 3RD St NW Suite 1140

Actual or Estimated Date the Application will be submitted to the Department: 12/22/16

Exact Location of the Source or Proposed Source: Hotel Chaco
2000 Bellamah Ave NW
Albuquerque, NM 87120

Description of the Source:
Caterpillar 839hp / 550 kW diesel fired emergency generator

Nature of the Business:
Hotel

Process or Change for which the permit is requested:
Stand-by emergency diesel genset

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	4.81	1.20
NOx	8.39	2.10
SO2	0.0055	0.003
VOC	0.24	0.11
TSP	0.15	0.07
PM10	0.15	0.07
PM2.5	0.15	0.07
VHAP	NA	NA

Net Changes In Emissions

(Only for permit Modifications or Technical Revisions)

	lbs/hr	tpy	Estimated Total TPY
CO	+/-	+/-	
NOx	+/-	+/-	
SO2	+/-	+/-	
VOC	+/-	+/-	
TSP	+/-	+/-	
PM10	+/-	+/-	
PM2.5	+/-	+/-	
VHAP	+/-	+/-	

Maximum Operating Schedule:
500hr/yr

Normal Operating Schedule:
Only in lieu of loss of commercial power and for maintenance testing

Current Contact Information for Comments and Inquires:
Name: Raymond Pohl
Address: 4000 Osuna Rd. NE
Phone Number: 505-235-7654
E-Mail Address: pohl_raymond@wagnerequipment.com

If you have any comments about the construction or operation of the above facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to the address below:

Environmental Health Manager

Stationary Source Permitting

Albuquerque Environmental Health Department

Air Quality Program

PO Box 1293

Albuquerque, New Mexico 87103

(505) 768-1972

Other comments and questions may be submitted verbally.

Please refer to the company name and facility name, as used in this notice or send a copy of this notice along with your comments, since the Department may not have received the permit application at the time of this notice. Please include a legible mailing address with your comments. Once the Department has performed a preliminary review of the application and its air quality impacts, if required, the Department's notice will be published in the legal section of the Albuquerque Journal and mailed to neighborhood associations and neighborhood coalitions near the facility location or near the facility proposed location.

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.

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	Heritage Hotels and Resorts		
Company Address	201 3RD St NW Suite 1140		
Facility Name	Hotel Chaco		
Facility Address	2000 Bellamah Ave NW		
Contact Person	Adrian Perez		
Contact Person Phone Number	(505)314-5152		
Are these application review fees for an existing permitted source located within the City of Albuquerque or Bernalillo County?	**Yes**	**No** (circled)	
If yes, what is the permit number associated with this modification?	**Permit #NA**		
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** (circled)	

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
Stationary Source Review Fees (Not Based on Proposed Allowable Emission Rate)			
	Source Registration required by 20.11.40 NMAC	$ 544.00	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	$ 1,088.00	2301
X	*Not Applicable*	*See Sections Below*	
Stationary Source Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)			
X	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	$ 816.00	2302
	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	$ 1,632.00	2303
	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	$ 3,265.00	2304
	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	$ 4,897.00	2305
	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	$ 6,530.00	2306
	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	$8,162.00	2307
	Not Applicable	*See Section Above*	
Federal Program Review Fees (In addition to the Stationary Source Application Review Fees above)			
X	40 CFR 60 - "New Source Performance Standards" (NSPS)	$ 1,088.00	2308
	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	$ 1,088.00	2309
	40 CFR 63 - (NESHAPs) Promulgated Standards	$ 1,088.00	2310
	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	$ 10,883.00	2311
	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	$ 5,442.00	2312
	20.11.60 NMAC, Non-Attainment Area Permit	$ 5,442.00	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	$ 1,088.00	2321
X	*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	$ 816.00	2322
	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	$ 1,632.00	2323
	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	$ 3,265.00	2324
	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	$ 4,897.00	2325
	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	$ 6,530.00	2326
	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	$8,162.00	2327
X	*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	$ 5,442.00	2333
	20.11.61 NMAC, Prevention of Significant Deterioration	$ 5,442.00	2334
X	*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)	$ 1,088.00	2328
	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	$ 1,088.00	2329
	40 CFR 63 - (NESHAPs) Promulgated Standards	$ 1,088.00	2330
	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	$ 10,883.00	2331
	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	$ 5,442.00	2332
	20.11.60 NMAC, Non-Attainment Area Permit	$ 5,442.00	2333
X	*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
X	*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
X	*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	$1904.00
Section III Total	$0
Section IV Total	$0
Section V Total	$0
Total Application Review Fee	**$1904.00**

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_____ day of _____ 20____

Raymond Pohl — **Print Name**

Project Engineer — **Print Title**

_____
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.

Google Maps GENSET Location

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2015 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT OF 1990

OFFICE OF TRANSPORTATION AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: **Caterpillar Inc.**
(U.S. Manufacturer or Importer)

Certificate Number: **FCPXL18.1NZS-008**

Effective Date: 08/05/2014

Expiration Date: 12/31/2015

Byron J. Bunker, Division Director
Compliance Division

Issue Date: 08/05/2014

Revision Date: N/A

Model Year: 2015
Manufacturer Type: Original Engine Manufacturer
Engine Family: FCPXL18.1NZS

Mobile/Stationary Indicator: Stationary
Emissions Power Category: 450<=kW<=560
Fuel Type: Diesel
After Treatment Devices: No After Treatment Devices Installed
Non-after Treatment Devices: Electronic Control, Engine Design Modification

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

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

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

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

The actual engine power may lie outside the limits of the Emissions Power Category shown above. See the certificate application for details.

PERFORMANCE DATA[DM8517]

April 14, 2015

Performance Number: DM8517

Change Level: 04

SALES MODEL:	C18	**COMBUSTION:**	DI
ENGINE POWER (BHP):	839	**ENGINE SPEED (RPM):**	1,800
GEN POWER W/O FAN (EKW):	571.0	**HERTZ:**	60
GEN POWER WITH FAN (EKW):	550.0	**FAN POWER (HP):**	25.5
COMPRESSION RATIO:	14.5	**ASPIRATION:**	TA
RATING LEVEL:	STANDBY	**AFTERCOOLER TYPE:**	ATAAC
PUMP QUANTITY:	1	**AFTERCOOLER CIRCUIT TYPE:**	JW+OC, ATAAC
FUEL TYPE:	DIESEL	**INLET MANIFOLD AIR TEMP (F):**	120
MANIFOLD TYPE:	DRY	**JACKET WATER TEMP (F):**	192.2
GOVERNOR TYPE:	ELEC	**TURBO CONFIGURATION:**	PARALLEL
CAMSHAFT TYPE:	STANDARD	**TURBO QUANTITY:**	2
IGNITION TYPE:	CI	**TURBOCHARGER MODEL:**	S310S089 1.10A/R
INJECTOR TYPE:	EUI	**CERTIFICATION YEAR:**	2006
REF EXH STACK DIAMETER (IN):	6	**PISTON SPD @ RATED ENG SPD (FT/MIN):**	2,161.4
MAX OPERATING ALTITUDE (FT):	5,577		

INDUSTRY	SUBINDUSTRY	APPLICATION
ELECTRIC POWER	STANDARD	PACKAGED GENSET
OIL AND GAS	LAND PRODUCTION	PACKAGED GENSET

General Performance Data

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	BRAKE MEAN EFF PRES (BMEP)	BRAKE SPEC FUEL CONSUMPTN (BSFC)	VOL FUEL CONSUMPTN (VFC)	INLET MFLD PRES	INLET MFLD TEMP	EXH MFLD TEMP	ENGINE OUTLET TEMP
EKW	%	BHP	PSI	LB/BHP-HR	GAL/HR	IN-HG	DEG F	DEG F	DEG F
550.0	100	839	334	0.333	39.9	66.2	121.3	1,258.5	969.1
495.0	90	748	298	0.337	36.0	62.0	118.8	1,202.2	928.6
440.0	80	662	263	0.347	32.8	58.5	113.0	1,160.8	901.2
412.5	75	620	246	0.353	31.2	56.6	111.6	1,140.6	889.5
385.0	70	579	230	0.358	29.6	54.6	110.5	1,120.6	878.0
330.0	60	498	198	0.369	26.3	49.5	108.7	1,080.3	855.9
275.0	50	420	167	0.379	22.7	42.5	106.9	1,033.6	831.7
220.0	40	344	137	0.374	18.4	31.2	103.4	941.8	783.6
165.0	30	267	106	0.361	13.8	18.9	99.5	829.8	716.4
137.5	25	229	91	0.357	11.7	13.7	97.4	769.2	676.9
110.0	20	190	75	0.354	9.6	8.9	95.2	704.9	632.1
55.0	10	109	43	0.407	6.3	4.7	90.7	565.9	523.5

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	COMPRESSOR OUTLET PRES	COMPRESSOR OUTLET TEMP	WET INLET AIR VOL FLOW RATE	ENGINE OUTLET WET EXH GAS VOL FLOW RATE	WET INLET AIR MASS FLOW RATE	WET EXH GAS MASS FLOW RATE	WET EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)	DRY EXH VOL FLOW RATE (32 DEG F AND 29.98 IN HG)
EKW	%	BHP	IN-HG	DEG F	CFM	CFM	LB/HR	LB/HR	FT3/MIN	FT3/MIN
550.0	100	839	72	398.5	1,634.9	4,551.5	7,185.3	7,464.7	1,566.3	1,408.6
495.0	90	748	67	380.3	1,571.3	4,247.9	6,517.3	6,769.4	1,504.5	1,353.0
440.0	80	662	64	366.3	1,529.0	4,043.1	6,086.3	6,315.9	1,460.7	1,313.6
412.5	75	620	62	358.9	1,503.1	3,932.8	5,870.3	6,088.8	1,433.3	1,288.9
385.0	70	579	60	351.0	1,472.5	3,813.5	5,648.4	5,855.7	1,401.7	1,260.5
330.0	60	498	54	330.8	1,387.7	3,531.1	5,148.1	5,332.3	1,319.7	1,186.8
275.0	50	420	47	302.3	1,267.5	3,160.0	4,525.1	4,684.3	1,203.1	1,082.0
220.0	40	344	35	252.3	1,069.3	2,579.6	3,561.3	3,690.0	1,020.1	917.4
165.0	30	267	22	196.6	852.8	1,947.5	2,532.6	2,629.2	814.2	732.2
137.5	25	229	16	172.6	760.2	1,672.2	2,099.7	2,181.4	723.4	650.5
110.0	20	190	11	150.4	675.6	1,416.0	1,707.3	1,774.5	637.7	573.5
55.0	10	109	7	126.8	600.5	1,124.7	1,224.6	1,269.0	562.4	505.8

PERFORMANCE DATA[DM8517]

Heat Rejection Data

GENSET POWER WITH FAN	PERCENT LOAD	ENGINE POWER	REJECTION TO JACKET WATER	REJECTION TO ATMOSPHERE	REJECTION TO EXH	EXHUAST RECOVERY TO 350F	FROM OIL COOLER	FROM AFTERCOOLER	WORK ENERGY	LOW HEAT VALUE ENERGY	HIGH HEAT VALUE ENERGY
EKW	%	BHP	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN	BTU/MIN
550.0	100	839	10,236	4,379	33,837	23,714	4,601	8,019	35,600	86,378	92,014
495.0	90	748	9,270	3,879	30,767	21,099	4,143	7,279	31,728	77,785	82,861
440.0	80	662	8,473	3,452	28,605	19,335	3,770	6,824	28,059	70,789	75,408
412.5	75	620	8,072	3,260	27,549	18,491	3,587	6,559	26,285	67,352	71,746
385.0	70	579	7,677	3,088	26,501	17,629	3,404	6,256	24,539	63,902	68,072
330.0	60	498	6,938	2,849	24,056	15,753	3,023	5,460	21,139	56,750	60,453
275.0	50	420	6,255	2,678	21,096	13,590	2,610	4,378	17,826	49,002	52,199
220.0	40	344	5,538	2,458	16,665	10,320	2,107	2,883	14,581	39,563	42,145
165.0	30	267	4,769	2,102	11,962	6,968	1,582	1,469	11,339	29,704	31,643
137.5	25	229	4,346	1,629	9,974	5,532	1,338	990	9,703	25,116	26,755
110.0	20	190	3,930	1,177	8,157	4,226	1,101	630	8,042	20,669	22,018
55.0	10	109	3,192	691	5,650	2,237	726	397	4,628	13,626	14,515

PERFORMANCE DATA[DM8517]

Emissions Data

RATED SPEED POTENTIAL SITE VARIATION: 1800 RPM

GENSET POWER WITH FAN		EKW	550.0	412.5	275.0	137.5	55.0
PERCENT LOAD		%	100	75	50	25	10
ENGINE POWER		BHP	839	620	420	229	109
TOTAL NOX (AS NO2)		G/HR	4,976	2,248	1,238	1,784	1,143
TOTAL CO		G/HR	518	270	239	238	471
TOTAL HC		G/HR	18	34	53	34	46
PART MATTER		G/HR	52.9	45.7	52.4	17.9	12.8
TOTAL NOX (AS NO2)	(CORR 5% O2)	MG/NM3	2,919.8	1,662.5	1,337.6	3,685.1	4,042.4
TOTAL CO	(CORR 5% O2)	MG/NM3	301.0	201.2	250.8	491.5	1,874.3
TOTAL HC	(CORR 5% O2)	MG/NM3	8.8	22.8	48.3	63.0	157.2
PART MATTER	(CORR 5% O2)	MG/NM3	25.6	29.6	46.0	30.6	45.8
TOTAL NOX (AS NO2)	(CORR 5% O2)	PPM	1,422	810	652	1,795	1,969
TOTAL CO	(CORR 5% O2)	PPM	241	161	201	393	1,499
TOTAL HC	(CORR 5% O2)	PPM	16	43	90	118	294
TOTAL NOX (AS NO2)		G/HP-HR	5.97	3.65	2.96	7.82	10.49
TOTAL CO		G/HP-HR	0.62	0.44	0.57	1.04	4.32
TOTAL HC		G/HP-HR	0.02	0.06	0.13	0.15	0.42
PART MATTER		G/HP-HR	0.06	0.07	0.13	0.08	0.12
TOTAL NOX (AS NO2)		LB/HR	10.97	4.96	2.73	3.93	2.52
TOTAL CO		LB/HR	1.14	0.59	0.53	0.53	1.04
TOTAL HC		LB/HR	0.04	0.08	0.12	0.08	0.10
PART MATTER		LB/HR	0.12	0.10	0.12	0.04	0.03

RATED SPEED NOMINAL DATA: 1800 RPM

GENSET POWER WITH FAN		EKW	550.0	412.5	275.0	137.5	55.0
PERCENT LOAD		%	100	75	50	25	10
ENGINE POWER		BHP	839	620	420	229	109
TOTAL NOX (AS NO2)		G/HR	4,607	2,082	1,147	1,652	1,058
TOTAL CO		G/HR	277	144	128	127	252
TOTAL HC		G/HR	9	18	28	18	24
TOTAL CO2		KG/HR	393	309	224	115	64
PART MATTER		G/HR	27.2	23.4	26.9	9.2	6.6
TOTAL NOX (AS NO2)	(CORR 5% O2)	MG/NM3	2,703.5	1,539.3	1,238.6	3,412.2	3,743.0
TOTAL CO	(CORR 5% O2)	MG/NM3	161.0	107.6	134.1	262.8	1,002.3
TOTAL HC	(CORR 5% O2)	MG/NM3	4.6	12.1	25.6	33.3	83.2
PART MATTER	(CORR 5% O2)	MG/NM3	13.2	15.2	23.6	15.7	23.5
TOTAL NOX (AS NO2)	(CORR 5% O2)	PPM	1,317	750	603	1,662	1,823
TOTAL CO	(CORR 5% O2)	PPM	129	86	107	210	802
TOTAL HC	(CORR 5% O2)	PPM	9	23	48	62	155
TOTAL NOX (AS NO2)		G/HP-HR	5.53	3.38	2.74	7.24	9.71
TOTAL CO		G/HP-HR	0.33	0.23	0.31	0.56	2.31
TOTAL HC		G/HP-HR	0.01	0.03	0.07	0.08	0.22
PART MATTER		G/HP-HR	0.03	0.04	0.06	0.04	0.06
TOTAL NOX (AS NO2)		LB/HR	10.16	4.59	2.53	3.64	2.33
TOTAL CO		LB/HR	0.61	0.32	0.28	0.28	0.56
TOTAL HC		LB/HR	0.02	0.04	0.06	0.04	0.05
TOTAL CO2		LB/HR	867	680	495	255	142
PART MATTER		LB/HR	0.06	0.05	0.06	0.02	0.01
OXYGEN IN EXH		%	9.5	11.3	12.7	13.9	16.2
DRY SMOKE OPACITY		%	0.7	0.8	0.9	0.6	0.5
BOSCH SMOKE NUMBER			0.37	0.49	0.60	0.33	0.17

PERFORMANCE DATA[DM8517]

Regulatory Information

EPA TIER 2		2006 - 2010		
GASEOUS EMISSIONS DATA MEASUREMENTS PROVIDED TO THE EPA ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 89 SUBPART D AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. THE "MAX LIMITS" SHOWN BELOW ARE WEIGHTED CYCLE AVERAGES AND ARE IN COMPLIANCE WITH THE NON-ROAD REGULATIONS.				
Locality	**Agency**	**Regulation**	**Tier/Stage**	**Max Limits - G/BKW - HR**
U.S. (INCL CALIF)	EPA	NON-ROAD	TIER 2	CO: 3.5 NOx + HC: 6.4 PM: 0.20

EPA EMERGENCY STATIONARY		2011 - —		
GASEOUS EMISSIONS DATA MEASUREMENTS PROVIDED TO THE EPA ARE CONSISTENT WITH THOSE DESCRIBED IN EPA 40 CFR PART 60 SUBPART IIII AND ISO 8178 FOR MEASURING HC, CO, PM, AND NOX. THE "MAX LIMITS" SHOWN BELOW ARE WEIGHTED CYCLE AVERAGES AND ARE IN COMPLIANCE WITH THE EMERGENCY STATIONARY REGULATIONS.				
Locality	**Agency**	**Regulation**	**Tier/Stage**	**Max Limits - G/BKW - HR**
U.S. (INCL CALIF)	EPA	STATIONARY	EMERGENCY STATIONARY	CO: 3.5 NOx + HC: 6.4 PM: 0.20

PERFORMANCE DATA[DM8517]

Altitude Derate Data

ALTITUDE CORRECTED POWER CAPABILITY (BHP)

AMBIENT OPERATING TEMP (F)	30	40	50	60	70	80	90	100	110	120	130	140	NORMAL
ALTITUDE (FT)													
0	839	839	839	839	839	839	839	839	839	839	839	839	839
1,000	839	839	839	839	839	839	839	839	839	839	839	839	839
2,000	839	839	839	839	839	839	839	839	839	839	839	830	839
3,000	839	839	839	839	839	839	839	839	839	826	812	799	839
4,000	839	839	839	839	839	839	839	839	839	809	795	781	768	839
5,000	839	839	839	839	839	839	838	823	809	795	781	768	755	839
6,000	839	839	839	839	836	821	806	791	777	764	751	738	725	839
7,000	839	839	835	819	803	789	774	760	747	734	722	710	698	829
8,000	835	818	802	787	772	758	744	731	718	705	693	682	670	802
9,000	802	786	770	756	741	728	714	702	689	677	666	655	644	776
10,000	770	754	740	725	712	699	686	674	662	650	639	629	618	750
11,000	739	724	710	696	683	670	658	646	635	624	613	603	593	725
12,000	709	694	681	668	655	643	631	620	609	599	588	579	569	700
13,000	679	666	653	640	628	617	605	594	584	574	564	555	545	676
14,000	651	638	626	614	602	591	580	570	560	550	541	532	523	653
15,000	624	611	599	588	577	566	556	546	536	527	518	509	500	630

PERFORMANCE DATA[DM8517]

Cross Reference

Engine Arrangement			
Arrangement Number	Effective Serial Number	Engineering Model	Engineering Model Version
2726915	EST00001	GS338	-

Test Specification Data						
Test Spec	Setting	Effective Serial Number	Engine Arrangement	Governor Type	Default Low Idle Speed	Default High Idle Speed
0K7256	PP5701	EST00001	2726915	ELEC		

PERFORMANCE DATA[DM8517]

Performance Parameter Reference

Parameters Reference:DM9600-06
PERFORMANCE DEFINITIONS

PERFORMANCE DEFINITIONS DM9600

APPLICATION:
Engine performance tolerance values below are representative of a typical production engine tested in a calibrated dynamometer test cell at SAE J1995 standard reference conditions. Caterpillar maintains ISO9001:2000 certified quality management systems for engine test Facilities to assure accurate calibration of test equipment. Engine test data is corrected in accordance with SAE J1995. Additional reference material SAE J1228, J1349, ISO 8665, 3046-1:2002E, 3046-3:1989, 1585, 2534, 2288, and 9249 may apply in part or are similar to SAE J1995. Special engine rating request (SERR) test data shall be noted.

PERFORMANCE PARAMETER TOLERANCE FACTORS:

Power	+/- 3%
Torque	+/- 3%
Exhaust stack temperature	+/- 8%
Inlet airflow	+/- 5%
Intake manifold pressure-gage	+/- 10%
Exhaust flow	+/- 6%
Specific fuel consumption	+/- 3%
Fuel rate	+/- 5%
Specific DEF consumption	+/- 3%
DEF rate	+/- 5%
Heat rejection	+/- 5%
Heat rejection exhaust only	+/- 10%
Heat rejection CEM only	+/- 10%

Heat Rejection values based on using treated water.

Torque is included for truck and industrial applications, do not use for Gen Set or steady state applications.

On C7 - C18 engines, at speeds of 1100 RPM and under these values are provided for reference only, and may not meet the tolerance listed.

These values do not apply to C280/3600. For these models, see the tolerances listed below.

C280/3600 HEAT REJECTION TOLERANCE FACTORS:

Heat rejection	+/- 10%
Heat rejection to Atmosphere	+/- 50%
Heat rejection to Lube Oil	+/- 20%
Heat rejection to Aftercooler	+/- 5%

TEST CELL TRANSDUCER TOLERANCE FACTORS:

Torque	+/- 0.5%
Speed	+/- 0.2%
Fuel flow	+/- 1.0%
Temperature	+/- 2.0 C degrees
Intake manifold pressure	+/- 0.1 kPa

OBSERVED ENGINE PERFORMANCE IS CORRECTED TO SAE J1995 REFERENCE AIR AND FUEL CONDITIONS.

REFERENCE ATMOSPHERIC INLET AIR

FOR 3500 ENGINES AND SMALLER
SAE J1228 AUG2002 for marine engines, and J1995 JAN2014 for other engines, reference atmospheric pressure is 100 KPA (29.61 in hg), and standard temperature is 25deg C (77 deg F) at 30% relative humidity at the stated aftercooler water temp, or inlet manifold temp.

FOR 3600 ENGINES
Engine rating obtained and presented in accordance with ISO 3046/1 and SAE J1995 JANJAN2014 reference atmospheric pressure is 100 KPA (29.61 in hg), and standard temperature is 25deg C (77 deg F) at 30% relative humidity and 150M altitude at the stated aftercooler

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water temperature.

MEASUREMENT LOCATION FOR INLET AIR TEMPERATURE
Location for air temperature measurement air cleaner inlet at stabilized operating conditions.

REFERENCE EXHAUST STACK DIAMETER
The Reference Exhaust Stack Diameter published with this dataset is only used for the calculation of Smoke Opacity values displayed in this dataset. This value does not necessarily represent the actual stack diameter of the engine due to the variety of exhaust stack adapter options available. Consult the price list, engine order or general dimension drawings for the actual stack diameter size ordered or options available.

REFERENCE FUEL

DIESEL
Reference fuel is #2 distillate diesel with a 35API gravity; A lower heating value is 42,780 KJ/KG (18,390 BTU/LB) when used at 29 (84.2), where the density is 838.9 G/Liter (7.001 Lbs/Gal).

GAS
Reference natural gas fuel has a lower heating value of 33.74 KJ/L (905 BTU/CU Ft). Low BTU ratings are based on 18.64 KJ/L (500 BTU/CU FT) lower heating value gas. Propane ratings are based on 87.56 KJ/L (2350 BTU/CU Ft) lower heating value gas.

ENGINE POWER (NET) IS THE CORRECTED FLYWHEEL POWER (GROSS) LESS EXTERNAL AUXILIARY LOAD
Engine corrected gross output includes the power required to drive standard equipment; lube oil, scavenge lube oil, fuel transfer, common rail fuel, separate circuit aftercooler and jacket water pumps. Engine net power available for the external (flywheel) load is calculated by subtracting the sum of auxiliary load from the corrected gross flywheel out put power. Typical auxiliary loads are radiator cooling fans, hydraulic pumps, air compressors and battery charging alternators. For Tier 4 ratings additional Parasitic losses would also include Intake, and Exhaust Restrictions.

ALTITUDE CAPABILITY
Altitude capability is the maximum altitude above sea level at standard temperature and standard pressure at which the engine could develop full rated output power on the current performance data set Standard temperature values versus altitude could be seen on TM2001. When viewing the altitude capability chart the ambient temperature is the inlet air temp at the compressor inlet

Engines with ADEM MEUI and HEUI fuel systems operating at conditions above the defined altitude capability derate for atmospheric pressure and temperature conditions outside the values defined, see TM2001. Mechanical governor controlled unit injector engines require a setting change for operation at conditions above the altitude defined on the engine performance sheet. See your Caterpillar technical representative for non standard ratings.

REGULATIONS AND PRODUCT COMPLIANCE
TMI Emissions information is presented at 'nominal' and 'Potential Site Variation' values for standard ratings. No tolerances are applied to the emissions data. These values are subject to change at any time. The controlling federal and local emission requirements need to be verified by your Caterpillar technical representative. Log on to the Technology and Solutions Divisions (T&SD) web page (https://pdgt.cat.com/cda/layout) for information including federal regulation applicability and time lines for implementation. Information for labeling and tagging requirements is also provided.

NOTES:
Regulation watch covers regulations in effect and future regulation changes for world, federal, state and local. This page includes

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items on the watch list where a regulation change or product change might be pending and may need attention of the engine product group. For additional emissions information log on to the TMI web page.

Additional product information for specific market application is available.
Customer's may have special emission site requirements that need to be verified by the Caterpillar Product Group engineer.

HEAT REJECTION DEFINITIONS:
Diesel Circuit Type and HHV Balance : DM9500

EMISSIONS DEFINITIONS:
Emissions : DM1176

SOUND DEFINITIONS:
Sound Power : DM8702

Sound Pressure : TM7080

RATING DEFINITIONS:
Agriculture : TM6008

Fire Pump : TM6009

Generator Set : TM6035

Generator (Gas) : TM6041

Industrial Diesel : TM6010

Industrial (Gas) : TM6040

Irrigation : TM5749

Locomotive : TM6037

Marine Auxiliary : TM6036

Marine Prop (Except 3600) : TM5747

Marine Prop (3600 only) : TM5748

MSHA : TM6042

Oil Field (Petroleum) : TM6011

Off-Highway Truck : TM6039

On-Highway Truck : TM6038

Date Released : 5/12/14

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): _____
      _____
      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.