

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2343-A AFIN: 23-01198

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Conway Community Services  
1555 Exchange Avenue  
Conway, Arkansas 72032

3. PERMIT WRITER:

Jude Jean-Francois

4. NAICS DESCRIPTION AND CODE:

NAICS Description: General Medical and Surgical Hospitals  
NAICS Code: 622110

5. SUBMITTALS:

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
10/27/2014	New	Installing two diesel-fired emergency electrical generators, three dual-fuel boilers, one 20,000 gallon diesel fuel storage tank, and two 1,500 gallon diesel fuel day tanks

6. REVIEWER'S NOTES:

Conway Community Service (CCS) plans to construct a new hospital at 1555 Exchange Avenue, Conway, AR. The facility is requesting to incorporate several processes into an air operating permit, including two diesel-fired emergency electrical generators, three dual-fuel boilers, one 20,000 gallon diesel fuel storage tank, and two 1,500 gallon diesel fuel day tanks in order to provide steam and back-up electrical power to the facility. This permitting action is necessary to formally permit operations at the facility.

The facility total emissions include 1.6 tpy of PM, 1.2 tpy of PM<sub>10</sub>, 0.9 tpy of SO<sub>2</sub>, 1.4 tpy of VOC, 10.8 tpy of CO, and 33.3 tpy of NO<sub>x</sub>.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The facility has no current or pending CAO'S or other issued related to enforcement.

8. PSD APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes, explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
01 and 02	HAPs	NESHAP Subpart ZZZZ
01 and 02	PM, CO, NO <sub>x</sub> , HC	NSPS Subpart IIII

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

c) H<sub>2</sub>S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H<sub>2</sub>S Standards

Y/N

If exempt, explain: \_\_\_\_\_

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H <sub>2</sub> S	20 parts per million (5-minute average*)	N/A	N/A
	80 parts per billion (8-hour average) residential area	N/A	N/A
	100 parts per billion (8-hour average) nonresidential area	N/A	N/A

\*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C<sub>p</sub> = 5-minute average concentration

C<sub>m</sub> = 1-hour average concentration

t<sub>m</sub> = 60 minutes

t<sub>p</sub> = 5 minutes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01 02	AP-42 Section 3.4 Table 3.4-1 Table 3.4-2 Table 3.4-3 Table 3.4-4	<u>lb/MMBtu</u> PM <sub>10</sub> = 0.0573 <u>lb/hp-hr</u> PM = 0.0007 SO <sub>2</sub> = 4.05E-04 VOC = 7.05E-04 CO = 5.50E-03 NO <sub>X</sub> = 0.024			
03,04, and 5	AP-42 Section 1.4 Tables 1.4-1 & 1.4-2 Tables 1.4-3 & 1.4-4	<u>lb/MMscf</u> PM/PM <sub>10</sub> = 7.6 VOC = 5.5 SO <sub>2</sub> = 0.6 CO = 84 NO <sub>X</sub> = 100  <u>lb/Mgal</u> PM/PM <sub>10</sub> = 3.3			3.75 MMBtu/hr  <u>Natural Gas</u> 8760 hrs/yr  <u>Diesel</u> 48 hrs/yr  26.79 gal/hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		VOC = 0.556 SO <sub>2</sub> = 07.1 CO = 5 NO <sub>x</sub> = 25			
06	Tanks 4.0.9d	Diesel Tank = 20,000 gals Diameter = 11 ft Turnovers = 10/yr			

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

14. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
N/A				

15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01 and 02	Hours of operation	500 hrs/yr	Monthly	N
03, 04, 05	Fuel Oil/diesel	1,300 gallon per year	Daily	N
03 04, 05	Diesel Fuel Usage	Not to exceed 48 hours per year	Monthly	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01-02	20%	§19.501 and A.C.A.	Method 9
03-05 (Natural Gas)	5%	§18.501 and A.C.A.	Method 9
03-05 (No. 2 Fuel)	20%	§19.503 and A.C.A.	Method 9

17. DELETED CONDITIONS:

Former SC	Justification for removal
N/A	

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs	
							Single	Total
Day Tank 1	A-3			1.42E-03				
Day Tank 2	A-3			1.42E-03				

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
N/A



## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

