Asheville-Buncombe Air Quality Agency Facility Inspection Report

Facility Inspection Information					
Facility Name:	Buncombe County Detention Center				
Date of Inspection:	April 30, 2025		**Last Inspected:**	May 6, 2024	
Mailing Address:	11 Valley St. Asheville, NC 28801		**Physical Location:**	20 Davidson Drive, Asheville, NC 28801	
Contact Name:	Jordan Angel		**Phone Number:**	828-774-6433 (c)	
Contact Email:	jordan.angel@buncombenc.gov				
Permit #:	11-893-17	**Issued:**	July 10, 2017	**Expires:**	July 31, 2025
Inspector(s):	Allison Glass				
Results:	Appears in compliance		**Inspection Time:**	9:00AM – 10:30AM	

Introduction

On the above date, a comprehensive inspection was conducted at the Buncombe County Detention Center along with other county buildings. The purpose of this inspection was to determine compliance under the Asheville-Buncombe Air Quality Agency Air Quality Code (ABAQA Code). The Buncombe County Detention Center is a detention facility for inmates. I scheduled this inspection ahead of time with Jordan Angel. Andrew Sawyer was the previous contact and can still be contacted if Mr. Angel is unavailable. The following is a summary of the inspection results:

Safety Equipment / Special Instructions

Steel-toed shoes and hearing protection are recommended during the inspection.

Permitted Equipment

Equipment ID	Description	Observed?	Hour Reading
ES-1	One (1) 760 kilowatt, diesel-fired emergency-use generator (Main Detention Center).	Observed – not operating	383.9 hours
ES-2	One (1) 500 kilowatt, diesel-fired emergency-use generator (Jail Addition).	Observed – not operating	520 hours
ES-3	One (1) 125 kilowatt, diesel-fired emergency-use generator (County Court House).	Observed – not operating	326.2 hours

ES-4	One (1) 450 kilowatt, diesel-fired emergency-use generator (Life Safety Tower).	Observed – not operating	920 hours
ES-5	One (1) 400 kilowatt, diesel-fired emergency-use generator (Judicial Complex).	Observed – not operating	583 hours
ES-6	One (1) 175 kilowatt, diesel-fired emergency-use generator (35 Woodfin).	Observed – not operating	288 hours

The generators are scheduled to run weekly on Tuesdays starting around 0930 hours and lasting for about one (1) hour. Mr. Angel was unable to unlock ES-6 to get the hour reading but said that I will be able to see the hours on the last maintenance inspection that was performed.

Exempt Sources:

Main Detention Center

Equipment ID	Description	Observed?	Hour Reading
1	One (1) 93 horsepower, diesel-fired emergency-use fire pump (Detroit Diesel Model DDPF-03 DT 5068F).	Observed – not operating	54 hours
2	Two (2) 6.30 million BTU per hour, natural gas-fired boilers (Mohawk Model AT-4-5-751).	Observed – one operating	N/A
3	Two (2) 0.18 million BTU per hour, natural gas-fired clothes dryers (Cissell Model L44CD426)	No longer there - replaced	N/A
4	One (1) 0.25 million BTU per hour, natural gas-fired clothes dryer (Cissell Model HD1106)	No longer there - replaced	N/A

The two 0.18 million BTU per hour dryers and the 0.25 million BTU per hour dryer have been replaced by 4 Dexter T-50X2 dryers, there are 2 dryers per unit totaling 8 dryers. Specifications are as follows: 8 gas input (per dryer – 60 hz) 0.108 million BTU per hour, 114MJ/hr (31.7 kW).

Jail Addition

Equipment ID	Description	Observed?
5	Two (2) 1.00 million BTU per hour, natural gas-fired water heaters (Power Fin by Lochinvan Model PFN1001PM)	Observed – not operating
6	Two (2) 1.00 million BTU per hour, natural gas-fired boilers (Power Fin by Lochinvan Model PFN1001)	Observed – not operating

Allport Building

Equipment ID	Description	Observed?
7	Two (2) 0.399 million BTU per hour, natural gas-fired boilers (Aerco Esteem 399).	Observed - operating
8	One (1) 50 kilowatt, diesel-fired emergency-use generator (Generac).	No longer there
9	One (1) 100-gallon, sub-base diesel fuel storage tank.	No longer there

Mr. Angel stated that the 50-kilowatt generator and the 100-gallon storage tank have not been there in a while.

County Court House

Equipment ID	Description	Observed?
10	Two (2) 4.032 million BTU per hour, natural gas-fired boilers (Weil-McLain)	Observed – not operating
11	One (1) 500-gallon aboveground diesel fuel storage tank	Observed

Life Safety Tower

Equipment ID	Description	Observed?
12	One (1) 5,000-gallon aboveground diesel fuel storage tank	Not observed – located under ES-5

Judicial Complex

Equipment ID	Description	Observed?
13	One (1) 1,550-gallon, sub-base diesel fuel storage tank	Observed

200 College Street (BC Administration)

Equipment ID	Description	Observed?
14	Two (2) 1.350 million BTU per hour, natural gas-fired boilers (RBI Dominator)	Not Observed

35 Woodfin Street (William H. Stanley Center)

Equipment ID	Description	Observed?
15	Two (2) 2.50 million BTU per hour, natural gas-fired boilers (Harsco Industrial Patterson-Kelley P-K Thermific Model N2500-MFD)	Observed – not operating
16	One (1) 1650-gallon, sub-base diesel fuel storage tank	Not Observed – located under ES-6

Interchange Building

Equipment ID	Description	Observed?	Hour Reading
17	One (1) 125 kilowatt, natural gas-fired emergency-use generator (Olympian Model No. G125G1).	Observed	5,144 hours

The generator was locked, and Mr. Angel did not have a key with him. He said he will send me the hour reading via email.

Permit Conditions:

The following does not represent all permitted conditions, only the permit conditions that are directly relevant to the inspection. For all the conditions, please review permit.

- **A.7 – This condition requires that the permittee maintain and operate the facility at all times so that the overall reduction in air pollutants, in accordance with applicable standards, is achieved.** *The facility has developed a maintenance schedule for equipment and is maintaining records of all maintenance. The facility has established standard operating procedures for equipment and is training equipment operators on the procedures.*
- **A.8 – This condition requires that the facility notify the Agency in the event of a malfunction.** *The facility has not experienced any malfunctions during the reporting period.*
- **A.11 – This condition requires that the facility pay their annual permit fee on a timely basis.** *The facility is up to date on fee payments. The facility last submitted their fee payment on August 27, 2024, and will get invoiced in July of this year with their permit renewal.*
- **A.12 – The facility is required to submit a permit renewal request no later than ninety (90) days prior to permit expiration.** *The permit is set to expire on July 31, 2025, so the permit renewal application is due by May 2, 2025. The facility submitted their request on April 16, 2025.*
- **A.14 – This condition requires the facility retain a copy of the permit on the premises.** *The facility had a copy of their current operating permit on-site.*
- **B.2 – This condition states the facility shall be operated to prevent odorous emissions from being emitted beyond the boundary of the facility.** *The facility did not produce any odorous emissions during the inspection.*
- **B.3 – This condition limits the facility's visible emissions to 20% opacity averaged over a six-minute period.** *During the inspection, the facility exhibited an opacity of 0%.*

- **B.4 – This condition establishes the facility's sulfur dioxide emission limit of 2.3 lbs per million BTU input resulting from combustion sources.** *The AP-42 SO2 emission factor for (small and large) diesel engines is 0.51 lb/MMBtu based on 0.5% fuel sulfur content and therefore compliance is expected so long as the facility uses fuel with a sulfur content equal to or less than 0.5%.*
- **B.5 – This condition states that equipment ID's ES-1, ES-2, ES-3, ES-4, ES-5, ES-6 shall be operated in accordance with ABAQA Code 4.1111 and NESHAP 40 CFR 63. The requirements are stated in 40 CFR 63 Subpart ZZZZ. ES-1 and ES-2 are exempt from the requirements of 40 CFR 63 subpart ZZZZ as long as they meet the definition of institutional emergency RICE. Emergency generators ES-3, ES-4, ES-5 and ES-6 are subject to 40 CFR Part 60 Subpart IIII, these requirements include the use of ULSD and limit operation for maintenance checks and readiness testing to 100 hours per year. However, the 100-hour limit may be exceeded if the tests are required by Federal, State, or local standards, or by petitioning EPA. Emergency stationary RICE located at area sources of HAP (which is the case for ES-1 and ES-2) may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except the 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if certain conditions are met as specified in the permit.** *Service records were provided to the inspector over a month after the conclusion of the inspection, thus resulting in a NOD. The service dates are as follows: ES-1 was serviced on June 5, 2025; ES-2 was serviced on April 22, 2025; ES-3 was serviced on May 27, 2025; ES-4 was serviced on April 22, 2025; ES-5 was serviced on March 7, 2025, and ES-6 was serviced on March 19, 2025.*

- **B.6 – This condition states that equipment ID's ES-3, ES-4. ES-5. ES-6 are subject to NSPS subpart IIII (40 CFR 60.4200 to 60.4219). The facility is following all NSPS Subpart IIII requirements for equipment ID's ES-3, ES-4, ES-5, ES-6 including: a. using manufacturer certified engines; b. using diesel fuel with a sulfur content less than 15ppm; c. operating and maintaining the engines according to manufacturer specifications; d. ensuring all engines are equip with a non-resettable hour meter; e. operating the engine for emergency situations, maintenance and testing, and other exempted non-emergency operations within the subpart's limits not exceeding 100 hours per calendar year per generator for testing and maintenance and 50 hours per year, per generator of non-emergency use, which counts towards the 100 hours for testing and maintenance; and f. maintaining records of engine operation both emergency, and non-emergency.** *The facility maintains records of generator hours, and no generator has operated over the 100-hour non-emergency limit.*
- **B.7 – This condition states that the facility has triggered a toxics review, and has been found to be in compliance with AB Air Quality Code 17.0700 by accepting the following limitations: ES-1 and ES-2 shall each operate no more than 290 non-emergency hours during any consecutive 12-month period.** *Condition B.5 limits the non-emergency hours for ES-1 and ES-2 to 100 hours. See Condition B.8 for generator run times.*
- **B.8 – This condition states that the facility is required to submit reports if non-emergency use exceeds 100 hours for any unit during a calendar year. Additionally, the facility is required to submit annual reports for fuel use and the hours of operation of the generators.** *The most recent annual report was submitted via email on January 31, 2025, and contained all the required information. The total hours for 2024 are as follows: ES-1 operated for 44 hours; ES-2 operated for 37 hours; ES-3 operated for 33 hours; ES-4 operated for 109 hours, ES-5 operated for 88 hours; and ES-6 operated for 56 hours. The emergency generators ran more than usual in 2024 due to Hurricane Helene. In 2022, ES-3 was found to have a faulty hour meter, this was an ongoing issue until*

2024. ABAQA received communication from Brian Chandler that the hour meter was repaired. No issues were seen during this inspection.

Compliance History:

A NOD was issued to the facility on June 3, 2025, for not providing the maintenance records for the permitted equipment in a timely manner. The inspection took place April 30, 2025, and all maintenance reports were not received until June 11, 2025. No further action will be taken.

Conclusion:

Based on the above information, Buncombe County Detention Center appears to be in compliance with all applicable regulations of the ABAQA Code and all applicable NSPS and NESHAP regulations after submitting the required maintenance records on June 11, 2025. It is recommended that this permit be renewed.

Signature: _____ **Date:** 6/11/25

Reviewer Signature: _____ **Date:** 7/9/25

Director Signature: _____ **Date:** 7/15/25