



## MEMORANDUM

TO: Asheville-Buncombe Air Quality Agency Board of Directors

FROM: Ashley Featherstone, Director

RE: Agenda for January 25, 2024

DATE: January 18, 2024

Enclosed, please find the Agenda for the Asheville-Buncombe Air Quality Agency Board meeting to be held on **Thursday January 25, 2024 at 4:00pm** in the meeting room located at the Buncombe County Permit Office at 30 Valley Street, Asheville, NC 28801.

This meeting will be live streamed on Engage Buncombe which can be accessed at <https://engage.buncombecounty.org/s8486>. The board meeting documents will also be available on the Engage Buncombe site. The meeting will be recorded and can be viewed later.

**ASHEVILLE-BUNCOMBE AIR QUALITY AGENCY BOARD OF DIRECTORS  
TENTATIVE AGENDA  
JANUARY 25, 2024 BOARD MEETING**

- 1. Public Comment Protocol Announcement**
- 2. Adjustment and Approval of Agenda**
- 3. Consent Agenda:**
  - A. Approval of special meeting (retreat) minutes from November 8, 2023
  - B. Approval of minutes from November 8, 2023
- 4. Unfinished Business:**
  - A. Nondiscrimination policy
- 5. Director’s Report:**
  - A. FY25 Budget
  - B. Blue Horizons Project Community Council
  - C. Radon Awareness month
  - D. Monitoring Update
  - E. Facility Permit Modifications

| <b>Facility Name</b>                                       | <b>Type of Facility</b>               | <b>Facility Classification</b> | <b>Location</b>               | <b>Changes from Existing Permit</b>   |
|--|---------------------------------------|--------------------------------|-------------------------------|---|
| Mission Hospital, Inc                                      | General Medical and Surgical Hospital | Synthetic Minor                | Biltmore Avenue, Asheville    | Replacement of two emergency generators, update monitoring and annual report requirements |
| Raytheon Technologies Corporation-Pratt & Whitney Division | Airplane Parts Manufacturer           | Small                          | Biltmore Park West, Asheville | Name Change and update to General Permit Conditions                                       |

- 6. New Business:**

None
- 7. Other Business:**
  - A. Legal Counsel Report
  - B. Advisory Committee Report
    1. Committee did not meet in December
  - C. Meeting with Buncombe County Manager and Assistant Manager
  - D. Calendar
    1. Next meeting March 14, 2024
  - D. Announcements
- 8. Public Comment**
- 9. Adjournment**



## MEMORANDUM

TO: Asheville-Buncombe Air Quality Agency Board of Directors

FROM: Ashley Featherstone, Director

RE: Retreat Minutes for November 8, 2023

DATE: January 18, 2024

Enclosed, please find the Minutes for the Asheville-Buncombe Air Quality Agency Board retreat held on **Wednesday November 8, 2023.**

This meeting will be live streamed on Engage Buncombe which can be accessed at <https://engage.buncombecounty.org/s8486>. The board meeting documents will also be available on the Engage Buncombe site. The meeting will be recorded and can be viewed later.

The Asheville-Buncombe Air Quality Agency Board of Directors met on Wednesday, November 8, 2023, in the meeting room at the Buncombe County Permit Office located at 30 Valley Street, Asheville, N.C.

The attendance of the Board members was as follows:

**Members Present:**

*Joel Storrow*

*Karl Koon*

*Evan Couzo*

*Garry Whisnant*

*Ned Guttman*

**Members Absent:**

*None*

**Staff Present:** *Ashley Featherstone, Director; James Raiford, Permitting Program Manager; Mike Matthews, Senior Air Quality Specialist; Betsy Brown, Air Quality Coordinator; Alex Latta, Senior Air Quality Specialist (via Zoom)*

**Others Present:** *Amy Broughton, County Attorney; Patti Beaver, CIBO*

**Board Retreat Agenda**

- **Mission**
- **Revenue History and Staffing**
- **Budget Update**
- **Revenues and Expenses Forecasting**
- **Succession Planning**
- **Funding Challenges Discussion**
- **Adjournment**

Mr. Storrow called the meeting of the Asheville-Buncombe Air Quality Agency Board of Directors to order on November 8, 2023 at 3:00 pm. Mr. Storrow thanked the Board members for attending and staff for their hard work getting this information together. Documents supporting the board retreat are available on the Agency SharePoint site and Engage Buncombe <https://engage.buncombecounty.org/s8486>.

The order of business was as follows:

- **Mission**  
The mission of the Agency is to protect and monitor the area's air quality to safeguard the public health and the environment.
- **Revenue History and Staffing**  
The Agency remains 100% self-funded with EPA Grant funds, industrial and commercial permit fees and the NC Gas tax.  
Title V permit fees had been decreasing over time but they have been adjusted and a cost of living increase each year is now included in the fee structure.  
EPA funding was nearly level from 2004 until a \$89k increase in 2023.  
The NC Gas tax has been stable and is expected to remain flat for the next 7 years before decreasing. Alternative funding is being considered, such as a

mileage tax since cars are more fuel efficient but still cause wear and tear on road surfaces.

The permit load has been at a stable level with the number of employees dropping and handling more complicated regulations. When the Agency had 8 staff, we did not have permit backlogs and the Agency ran more smoothly. We would like to fill the seventh position that we have open. If it is filled at an entry level, salary would be about \$60,000 per year with benefits increasing the expense to around \$100,000 per year.

- **Budget Update**

Staff supplied actual account information for BCFY2022 and FY2023 and the budget information for 2024. In 2022 the Agency nearly broke even (took \$695 from the fund balance). In 2023 \$8,037 was put back into the fund balance. Extra funds from the EPA to buy needed equipment and for the regular EPA 105 Grant kept the Agency from drawing from the fund balance. The approved budget for FY2024 projects \$116,703 being drawn from the fund balance. The \$116,703 does not reflect some of the additional EPA grant funds that have been or are expected to be awarded. Also, historically the Agency has not drawn down the budgeted fund balance amount every year.

- **Revenues and Expenses Forecasting**

Five-year forecasting included the capital expense of \$30,000 for FY24 for new ozone monitoring equipment (one time grant money purchase). The chart shows expenses increasing 3% per year. Salaries are estimated to increase 4% for FY25 and 3% per year thereafter. This could be higher since based on 2-year average of CPI. This increase must be approved by commissioners. Our staff receives those increases but no extra funds to cover the increase. This increase was 7.28% effective this budget year due to the high rate of inflation which was a substantial increase. Indirect is expected to increase 4% per year.

Included are the following:

- Increase in EPA grants (103 and 105) for 2024 (\$89,483)
- \$15,000 contingency each year which is not spent most budget years
- Other costs not included:
  - Modernization-digitalization of files (\$60,000)
  - Replace Agency Vehicle (1-2 year timeframe \$60,000 per vehicle)
  - Filling Vacant Position (>\$100k total for S&B)
  - Extra funds for staff overlap/training, internship, radon kits

The difference between revenue, including sustained EPA funding at the increased levels, and expenses gradually increases up to an income deficit of \$180,056 per year by FY2028. With the increased funding, the fund balance would be down to under \$67,000 by the end of 2027.

Without the increased funding, the deficit is predicted to be \$170,816 per year by 2025 and \$269,639 in 2028. Under that scenario, the fund balance would be down to under \$155,000 by the end of 2028. Funding levels depend on budget decisions made by Congress.

It was noted that when someone retires from the Agency with over 25 years and are under 65 years of age, the Agency continues to pay around \$18,000/year for health insurance until that person turns 65. We are still paying for the former director who retired in his fifties and might incur that additional expenditure when one or two of the current staff retires. This expense is only included in the projections from what is currently being paid, but not for any future retirees. If newer staff is hired at a lower salary this helps offset that cost in the projections. This benefit is no longer offered to newly hired staff.

- **Succession Planning**

It is anticipated that two employees will retire in less than one year. Another employee could leave in 3-4 years. Although we will miss the institutional knowledge of retiring staff this gives the Agency the opportunity to restructure. The State Division of Air Quality is doing succession planning now. They have noticed that sometimes they are unable to replace one experienced staff with one new staff member because of the institutional knowledge loss; sometimes it requires 1.5 FTE to replace one experienced staff. It was pointed out the amazing job the current staff of six has been able to do. However, if someone were to go out on FMLA we do not have the depth to cover that position. The county is doing emergency planning now and we have to be sure we can cover our monitoring requirements, for example. We are having regular meetings to discuss possible changes and scenarios possible moving forward.

- **Funding Challenges Discussion**

We have been updating financial projections each year for several years. We have increased our fees and revenues as we have been able. Mecklenburg and Forsyth Air Quality Agencies both receive funding from their counties. Mr. Storrow mentioned the meetings that he and Ms. Featherstone have had with our interlocal agreement partners -the city and the county, about seeking additional funding for our Agency, which have not gotten a lot of traction. Rather than putting emphasis on the declining revenue, county management wants us to focus on the added value our local agency gives. The County did a presentation that looked at our future as an independent agency. One of those would be to become a county department; another would be that we might go completely away and Buncombe monitored like most other counties in the state. The mayor and city manager said the city has a lot of boards and commission and think they may be too commission heavy and would probably be supportive of the Agency becoming a county department.

Mecklenburg Air quality requested funding from their county for the first time this past year and the State is asking the General Assembly for funding the first time this year. We would only ask the county to cover our funding gap. When emissions went down and air quality improved, the funding based on those emissions went down.

Last year we asked for county funds to finance our digitization project and were told that we were not eligible for funding as we were not a county department.

One possible future is that we receive no extra funding, and we go away because we cannot afford to exist. If we can build a strong case of the harm of the local agency going away, the county does seem supportive. Implications include that the agency brings in about a million dollars in revenue that would otherwise be going to the state. If we stopped existing, the county would still carry the burden for the retired employees. Open burning is a problem in our county which we are able to address in a timely manner. We are able to offer better customer service and local control. The state does a great job and is a valuable partner, but they have 19 western counties to cover. Some of the supporting rules are our air quality rules which would not exist if we did not. We have stricter rules than the state. One of which is a restriction on the size of materials that land clearing operations can burn. We have rules where we can require construction sites to control dust beyond property boundaries and the state no longer has those. We have more stringent asbestos removal requirements and issue those permits locally whereas those would be handled through Raleigh. Because the state has adopted some exemptions to their permit rules a few years ago which we did not adopt, some of our facilities would no longer be required to have an air quality permit. They would still be subject to most of the same rules that they are now; however, without a permit it might be more difficult to require a facility to properly maintain their equipment or require a dust control plan.

Board members stressed taking time to emphasize our value – what would be the impact of the loss of the local air quality agency and having several conversations about funding and future options. One board member said he would rather the state took over from the agency rather than it become a county department due to the possible political ramifications. He suggested looking at bylaws and whether or not the agency could be taken over by the county. Originally it was an independent agency outside of other government control. He pointed out that we have had deficits before. He suggested making moves in gradual steps and noted that we have a good rapport with our community partners who would be supportive of us remaining independent.

It was noted we should drive the conversation(s) and start now.

Being considered as a county department or receiving any funding likely would not happen during the next budget year BCFY2025. Mr. Storrow urged board members to discuss things among themselves and to reach out to Ms. Featherstone and to him.

- **Adjournment**

The meeting was adjourned at 3:58 pm.



## MEMORANDUM

TO: Asheville-Buncombe Air Quality Agency Board of Directors

FROM: Ashley Featherstone, Director

RE: Minutes for November 8, 2023

DATE: January 18, 2024

Enclosed, please find the Minutes for the Asheville-Buncombe Air Quality Agency Board meeting held on **Wednesday November 8, 2023**. The next meeting is scheduled for **Thursday, January 25, 2024, at 4:00 pm** in the meeting room located at the Buncombe County Permit Office at 30 Valley Street, Asheville, NC 28801.

This meeting will be live streamed on Engage Buncombe which can be accessed at <https://engage.buncombecounty.org/s8486>. The board meeting documents will also be available on the Engage Buncombe site. The meeting will be recorded and can be viewed later.



The Asheville-Buncombe Air Quality Agency Board of Directors met on Wednesday, November 8, 2023, in the meeting room at the Buncombe County Permit Office located at 30 Valley Street, Asheville, N.C.

The attendance of the Board members was as follows:

**Members Present:**

*Joel Storrow*

*Karl Koon*

*Evan Couzo*

*Garry Whisnant*

*Ned Guttman*

**Members Absent:**

*None*

**Staff Present:** *Ashley Featherstone, Director; James Raiford, Permitting Program Manager; Mike Matthews, Senior Air Quality Specialist; Betsy Brown, Air Quality Coordinator; Alex Latta, Senior Air Quality Specialist (via Zoom)*

**Others Present:** *Ava Ingle, UNCA McCullough Fellow; Johanna Cano, Buncombe County Communications and Public Engagement (CAPE); Patti Beaver, CIBO; Jay Haney, Advisory Committee member; Amy Broughton, County Attorney*

Mr. Storrow called the meeting of the Asheville-Buncombe Air Quality Agency Board of Directors to order on November 8, 2023, at 4:06 pm.

The order of business was as follows:

**1. Public Comment Protocol Announcement**

Mr. Storrow read the public comment protocol.

**2. Adjustment and Approval of Agenda**

Mr. Koon made the motion to approve the agenda. Dr. Guttman seconded the motion.

All present – yes

The motion passed 5-0.

**3. Consent Agenda**

Dr. Guttman made the motion to approve the minutes. Mr. Koon seconded the motion.

All present – yes

The motion passed 5-0.

**4. Special Presentation**

A. Ava Ingle, UNCA McCullough Fellowship, Asheville-Buncombe Sustainable Microbrewery Initiative

Ms. Ingle, a senior at UNCA, was awarded a McCullough Fellowship. She gave a presentation about her undergraduate research project on discovering energy efficiency opportunities in Asheville's craft brewing industry. The brewing process consumes a lot of energy. In the brew house,

breweries burn natural gas to heat water to generate steam. Once the beer production process is complete, it must be refrigerated. Refrigeration uses a lot of electricity; the result of this high energy consumption is high greenhouse gas emissions. The goal was to discover ways that brewing can be more energy efficient and reduce the greenhouse gas emissions to the atmosphere. Ms. Ingle partnered with the Agency, her community partner; Dr. Evan Couzo, faculty advisor; and Marshall Goers, an engineer with Waste Reduction Partners.

Ms. Ingle used the EPA Energy Star program Treasure Map which is designed specifically for microbreweries to find and identify energy efficiency improvements in their facilities. The treasure map is broken into different categories based on different areas in a brewery. Most of the opportunities that were found were in the hot water and steam systems and in the refrigeration areas. Wicked Weed, Cellarest, RAD, and Highwire participated. Wicked Weed is a larger brewery and had previously worked to improve their energy efficiency. The CO2 emission reduction opportunities Ms. Ingle discovered would be the equivalent of removing 31 cars from the road a year if those opportunities were utilized. Since there are forty breweries in Asheville, there is potential for a more significant reduction. Highwire had the greatest opportunity; they could save around \$17,000 if they added insulation on the steam pipes and steam system.

The total savings discovered were 309,336 pounds of CO2 emissions reductions and cost savings of \$25,827 per year. Participation in this project indicates that Asheville's craft brewing industry prioritizes sustainability. Each brewery had sustainable efforts in place already. Implementing energy efficiency measures into Asheville's craft brewing industry will help mitigate the effects of climate change.

Dr. Couzo mentioned an earlier study by students which found that the CO2 that is released during the fermentation process was dwarfed by the fossil CO2 coming from the natural gas and electricity usage. The energy used for electric generation is from fossil emissions; this is carbon that has been buried for tens or hundreds of millions of years. The emissions of CO2 from the fermentation process are part of the global carbon cycle. This is from plants that pulled carbon dioxide out of the atmosphere to make grains and carbohydrates.

## **5. Unfinished Business**

### **A. Nondiscrimination policy**

It is a requirement of all EPA grantees to comply with Title VI, the Civil Rights Act. The requirements are addressed in the grant applications that the Agency is required to submit. The EPA has been taking a closer look at this in the last couple of years. We need to have a formal nondiscrimination policy. We have drafted something that is consistent with the other nondiscrimination policies that we have reviewed. In order to meet the

EPA requirements, we must have the policy in writing, it must include the contact information of a designated person to whom someone can address a civil rights complaint and be posted on our website. Board members requested that Ms. Broughton, the county attorney, review the policy before it is approved and posted.

## **6. Director's Report**

### **A. FY 23 End of Year Budget Update**

The Board packet included budget comparisons from Buncombe County fiscal years 2021, 2022 and 2023. In 2021 \$119,645 was added to the fund balance; that year staffing was down to only 5, which is not adequate to operate the Agency. In 2022 we pulled down \$692, basically breaking even. In 2023 \$8,037 was added back to the fund balance. Further adjustments could be made to the 2023 numbers by Finance. A more detail discussion took place during the budget retreat earlier.

### **B. ITGC Request Submitted to County**

Any IT projects of more than \$10,000 are required to go through this process. Projects are reviewed and go through certain procedures. It is a long-term planning process on the part of the county. When we submitted one last year, the county noted that we were not a county department but an independent agency, and they tabled our request. This year we submitted again to follow proper procedure for projects this size, but we had to specify that we intend to pay for this out of our fund balance. We are not asking the county for any funding for the project. We noted that we would spread the cost out over time. We had another meeting and are working on phase one, during which we put plans in writing so that they can be submitted for approval. We can consider different options going forward.

### **C. EPA State Review Framework Audit**

This is part of our compliance monitoring agreement with EPA; they do a very detailed, thorough audit of our Title V and synthetic minor facility records every five years or so. These are the federally enforceable permits. We have enforcement agreements about how we implement the rules. We enter compliance data into a national database of record; this is accessible by the public who can see where the facilities are, if they are in compliance, and if there have been compliance issues. We report stack test results and reviews, violations, and the results of compliance inspections. We have just completed one of these audits, which take a significant amount of staff time.

All in all, we did a good job, but there is always room for improvement. We have about 18 facilities that this covers. Staff is currently working on the response to EPA's comments.

#### D. Monitoring Update

James Raiford gave the monitoring update. There was concern over the last week about fires. Mr. Raiford noted the EPA Fire and Smoke Map is a great resource and tool that can be used during times when we have fires in the area. We have one PM monitoring site across the river here at the Board of Education. The next closest PM monitor the state runs is Bryson City. If there is a fire between us and Bryson City, you probably will not see the effect of the fire on the PM levels. For instance, our PM monitor never got below a middle code yellow over the last few days. The AQI yellow being marginally unsafe.

If you were close to a fire, the air quality would have been a lot worse. On this map there are squares that represent PurpleAir air quality sensors. Those are often located at homes. The EPA has worked with PurpleAir to take the data on these and to apply an EPA derived factor to try to normalize that data from these much less expensive sensors so that sensor data is closer to the gold standard EPA data that is collected by state and local air agencies. The EPA wants to use sensor data for this very particular purpose, tracking local air quality conditions near fires.

A good project would be to get more PurpleAirs out in Buncombe County as part of this fire and smoke network. Mr. Raiford showed a monitor near Franklin that had been code red and code purple during recent fire events. This is unhealthy air and would be good information for people near the fire to have. This is just a great tool to use.

Ozone season ended on Halloween. The standard for ozone is 70 parts per billion (ppb) in terms of a 3-year average of the annual fourth-highest daily maximum. Our fourth highest maximum value this year was 63 ppb. Our projected design value (3-year average) for next year will be 61 ppb. That is well below 70. We are in compliance with the national ambient air quality standards. Our current design value is 58, but in 2020 we had really good air quality due to the pandemic and that low year will drop off of our average next year and the value will increase to reflect more normal conditions. For ozone, our annual data is complete. We had 99.3% data completeness for the entire year.

For PM monitoring, data completeness was at 97.2%. So far our annual average is 6.8 (micrograms per cubic meter). This is well below the current 12.0 standard. This standard is going to drop, to 10, 9 or even 8 is possible. But 10 or 9 micrograms per cubic meter is probably the most likely number to which the standard will drop. We are in good shape with complying with that standard.

E. Facility Permit Renewals

| Facility Name                    | Type of Facility | Facility Classification | Location                       | Changes from Existing Permit |
|----------------------------------|------------------|-------------------------|--------------------------------|------------------------------|
| Asheville Mortuary Services, LLC | Crematory        | Small                   | 702 Riverside Drive, Asheville | Update general conditions.   |

There was discussion about the issues that the facility was having with their incinerator. The facility is having problems with getting the manufacturer to make the necessary repairs.

Dr. Guttman made a motion to approve the permit renewal.

Mr. Koon seconded the motion.

All present – yes

The motion passed 5-0.

**7. New Business**

None

**8. Other Business**

A. Legal Counsel Report

Amy Broughton noted that at the last meeting we briefly touched upon efforts to collect on civil penalties and enforce violations. The county does not have a specific plan for that yet. We are looking at how to handle situations with violators that also have violations with other county departments as well as air quality violations. The County is looking at a more holistic approach to dealing with these situations. There are some challenges to a lot of these. For example, for some of these offenses, we are having trouble deciding who would be cited because sometimes there is a transient population involved. We are looking at a resolution that has less to do with collecting on the violations and more to do with stopping the behavior. The County continues to work on that.

B. Advisory Committee Report

1. October 19, 2023 Minutes

We did not have a quorum at the last meeting. We talked about the community shelter. We changed some language around how the Agency will collect data from people that are putting their low-cost air quality sensors in the shelter. There is an opportunity with students at Nesbitt High School to create an informational sign for the shelter.

We had an update on Ms. Ingle’s project presented earlier.

Dr. Couzo built low-cost sensors out of a Raspberry Pi platform. Those were deployed with his students last Friday. There is one at every Asheville City School campus. They will be collecting measurements continuously until the end of the month when Dr. Couzo and his

students will collect the data. They also co-located one at the sensor shelter near the Agency monitors, so they will know if these sensors are reliably reporting PM 2.5.

There is also a PurpleAir project, and they are still looking for host sites for these. Dr. Couzo's students are starting to analyze the data from the summer so they can identify the PurpleAirs that we trust and will deploy them across the city or the county.

Ms. Featherstone reported that Buncombe County Schools applied for Clean School Bus funds to replace five older diesel school buses with five electric school buses. She has not heard the results. EPA will make an announcement between November and January. Ms. Featherstone gave an update to the Commissioner's Energy and the Environment subcommittee. They were very interested in the electric school buses. We are trying to get another meeting set up with the schools. Duke Energy, Clean Vehicles Coalition, and Buncombe County Sustainability are supporting that effort.

The EPA Climate Pollution Reduction Grant -Implementation Grants will be available now into next year. We worked on projects with Sustainability for a heating upgrade program. An electrification project is something that the Buncombe County Sustainability Department is working on. Our idea for funding is to replace older combustion source heaters in lower income homes with new, more efficient heating. We have always wanted to do a wood stove change out program. We worked with Sustainability and submitted a proposal to the Department of Environmental Quality to consider for their Climate Pollution Action Plan, CPA, so that we would be eligible to apply for funding if that type of project is covered. The State Energy Office is definitely interested in electrification projects to help lower income households.

The Advisory Committee is not meeting in December but will meet again in February.

#### C. Calendar

##### 1. 2024 Board Meeting Schedule

Mr. Koon made a motion to approve a 2024 board meeting schedule - the board would meet the second Thursday of every other month at 4 pm with the exception of January. That meeting would be Thursday, January 25, 2024. Mr. Whisnant seconded the motion.

All present – yes

The motion passed 5-0.

##### 2. Next meeting January 25, 2024 at 4 pm.

#### D. Announcements

October was Children's Health Month, so the Agency did a news story which is posted on our website. The Asheville Holiday parade is coming up on November 18th and the Clean Vehicle Coalition will have an entry again if anyone wants to participate. There will be a Ford Lightning, other electric vehicles and a propane trolley. Ms. Featherstone encouraged everyone to come and join the fun and ride the trolley.

**9. Public Comment**

None

**10. Adjournment**

Mr. Koon made the motion to adjourn. Dr. Guttman seconded the motion.

All present – yes

The motion passed 5-0.

The meeting adjourned at 5:00 pm.



## **Title VI Nondiscrimination Policy Statement**

It is the policy of the Asheville-Buncombe Air Quality Agency (AB Air Quality) that: No person shall, on the ground **of race, color, national origin, sex, age or disability** be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance, as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, the Rehabilitation Act of 1973, and all other related nondiscrimination laws and requirements.

### **What is Title VI?**

Title VI of the Civil Rights Act of 1964 (42 U.S.C. Section 2000d) provides that, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” The 1987 Civil Rights Restoration Act (P.L. 100-259) expanded the definition of “programs and activities” to include all programs and activities of federal aid recipients, sub-recipients and contractors, whether such programs and activities are federally assisted or not.

Related nondiscrimination authorities include, but are not limited to: Section 504 of the Rehabilitation Act of 1973, as amended; the Age Discrimination Act of 1975 as amended; Title IX of the Education Amendments of 1972; Section 508 of the Rehabilitation Act of 1973.

As a recipient of federal funding, AB Air Quality is required to comply with the rules, laws and regulations of Title VI. Title VI also applies to recipients of federal financial assistance that passes through AB Air Quality in the form of grants, contracts or subcontracts.

Title VI requires that AB Air Quality take the following actions to ensure the Agency’s compliance with federal law:

- Ensuring that all contractors, sub-contractors, and sub-recipients awarded AB Air Quality funded contracts and grants adhere to Title VI and all applicable laws, regulations and rules.
- Provision of free language assistance to limited English proficient (LEP) persons; and
- Inclusion of statement of assurances of Title VI compliance in all procurement and grant contracts.

AB Air Quality is committed to ensuring all management staff, contractors and service beneficiaries are aware of the provisions of and responsibilities associated with Title VI of the Civil Rights Act of 1964.

### **How to File a Discrimination Complaint**

You may file a signed, written complaint with the Asheville-Buncombe Air Quality Agency Director within one hundred eighty (180) calendar days of the alleged discriminatory act. It should provide:

- Your name, address and telephone number. Your complaint must be signed. If you are filing on behalf of another person, include your name, address, telephone number and your relation to that person (e.g., friend, attorney, parent, etc.).





- The name and address of the company, agency, institution, or department you believe discriminated against you.
- Describe what happened, when, where you believe you were discriminated against. Include as much background information as possible about the alleged acts of discrimination. Include the names of individuals whom you allege discriminated against you and individuals who were witnesses to any incident.
- Include the names of any persons that may be contacted for additional information about your allegations.

**Ashley Featherstone, Director, Title VI Coordinator**  
**Asheville-Buncombe Air Quality Agency**  
**30 Valley Street**  
**Asheville, NC 28801**  
**828-250-6778**  
[ashley.featherstone@buncombecounty.org](mailto:ashley.featherstone@buncombecounty.org)

**Western North Carolina Regional Air Quality Agency  
APPLICATION REVIEW SUMMARY**

| SECTION A: FACILITY INFORMATION  |  |              |          |
|----------------------------------|--|--------------|----------|
| Company Name:                    | MH Mission Hospital, LLLP                |              |          |
| Site Name:                       | Mission Hospital                         |              |          |
| Mailing Address:                 | 509 Biltmore Avenue, Asheville, NC 28801 |              |          |
| Site Address:                    | 509 Biltmore Avenue, Asheville, NC 28801 |              |          |
| General Description of Business: | General Medical and Surgical Hospital    |              |          |
| Facility Classification:         | Synthetic Minor                          | Site Status: | Existing |

| SECTION B: APPLICATION INFORMATION  |   |                           |                  |
|-------------------------------------|---|---------------------------|------------------|
| Date of Application:                | October 27, 2023  | Application Tracking No.: | NA               |
| Date Complete Application Received: | November 27, 2023   | Board Meeting Date:       | January 25, 2024 |
| Confidentiality Requested?          | No  | Board Agenda Type:        | Modification     |
| Application Results:                | The purpose of this review is to approve the replacement of two emergency-use generators. |                           |                  |
| Permit No. Issued by Application:   | 11-476-18A / January 25, 2024   |                           |                  |
| Permit No. Voided by Application:   | 11-476-18 / July 9, 2018  |                           |                  |

| SECTION C: REGULATORY INFORMATION |  |
|-----------------------------------|--|
| AB Air Quality Regulations:       | 4.0503, 4.0516, 4.0521, 4.0524, 4.1111, 4.1806, 17.0315, 17.0700 |

| SECTION D: FACILITY-WIDE EMISSIONS INFORMATION  |                                 |   |
|---|---------------------------------|---|
| Pollutants Reviewed as a Result of this Application or AB Air Quality Action:   | Actual 2022 Emissions (tons/yr) | Potential Emissions (TONS/YR) With Operational Limits & Control |
| CO  | 14.41                           | 89.33   |
| NO <sub>x</sub>   | 11.14                           | 99.68   |
| PM  | 1.29                            | 8.11  |
| PM <sub>10</sub>  | 1.26                            | 7.21  |
| PM <sub>2.5</sub>   | 1.25                            | 6.60  |
| SO <sub>2</sub>   | 0.09                            | 59.96   |
| VOC   | 1.03                            | 6.10  |
| Greenhouse Gases, CO <sub>2e</sub>  | 18,608.70                       | 97,688.01   |
| Total HAPs  | 0.28                            | 4.48  |
| List all HAPs >10 TPY   | None                            |   |
| *Emission numbers denoted with a (*) reflect "controlled" emissions (i.e. emissions reduced by a pollution control device). |                                 |   |

| IN COMPLIANCE WITH EMISSION STANDARDS / RECOMMEND APPROVAL |  |                |           |
|--|--|----------------|-----------|
| Prepared By:   | James C. Raiford /        | Date Reviewed: | 1/12/24   |
| Reviewed By:   | Betsy Brown /             | Date Approved: | 1/16/2024 |
| Director:  | Ashley J. Featherstone /  | Date Approved: | 1/16/2024 |

## SECTION A DETAILS

### FACILITY INFORMATION [Detailed discussion of any items in Section A]

Mission Hospital, formerly Mission St. Joseph's Health System, Inc., operates a general medical and surgical hospital near downtown Asheville. Mission Hospital was formed as the result of an October of 1998 merger of Memorial Mission Hospital and St. Joseph's Hospital.

On the Memorial Campus, the facility utilizes four boilers and five emergency-use generators, and on the St. Joseph Campus, the facility utilizes three boilers and three emergency-use generators. Steam from the boilers is used in several applications, including sterilization of surgical equipment, clothes laundering, and building heating. Pollutants from these operations are the result of natural gas and fuel oil combustion by the boilers and diesel combustion by the generators. The pollutants of concern are carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM, PM<sub>10</sub>, PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOCs), various hazardous air pollutants (HAPs), and greenhouse gases (GHGs), in particular, carbon dioxide (CO<sub>2</sub>).

Mission Hospital has facility-wide potential emissions in excess of 100 tons per year (tpy) for NO<sub>x</sub> and SO<sub>2</sub>. In order to preclude applicability of Title V permitting procedures as outlined in 40 CFR Part 70, the facility elected to take avoidance limitations that capped facility-wide NO<sub>x</sub> and SO<sub>2</sub> emissions below the 100 tpy threshold. Thus, Mission Hospital is classified as a synthetic minor facility.

Mission owns and operates various related sites in the vicinity of the Memorial and St. Joseph Campuses. The sources at these outlying sites are mainly natural gas-fired boilers and diesel-fired emergency generators and most of these are included on the exempted activities list. Emergency generators at the Cancer Center, another at the Laundry, and the three proposed generators at the new Central Energy Plant are subject to 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICEs). These five emergency generators are listed as permitted sources (ES-17, ES-18, ES-22, ES-23, and ES-24) so that the relevant Subpart IIII requirements can be included in the permit. There is also a 500-gallon gasoline tank that is subject to 40 CFR Part 63, Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. This tank is listed as permitted source (ES-19) so that the relevant Subpart CCCCCC requirements can be included in the permit.

In 2015, Mission Hospital added a new Central Energy Plant which included two 28.57 million Btu/hour natural gas/fuel oil boilers and three 3000 kilowatt diesel generators. This triggered a NC air toxics review of all emission sources at the facility. Actual and projected emissions exceed the TPERs (toxic permit emission rates) for several pollutants including arsenic. Modeling was performed by Mission to determine if there was an unacceptable risk to human health. The modeling results showed that with fuel limits, Mission was in compliance with toxics regulations. More information is provided in Section C of this permit review.

With this permit application, Mission is replacing two emergency generators, ES-5 and ES-7 with new units (ES-25 and ES-26). The new engines are rated at 1,645 kW, which is larger than the previous engines which were 1,250 kW. (Note: the permit application and the manufacturer's specifications stated that these engines were rated at 1500 kW. The information on the equipment nameplates shows the power as 1645 kW at 1800 rpm. The emissions and modeling were based on the rated horsepower which equates to 1645 kW. The permit reflects the 1645 kW rating.) Since the engines were larger, this triggered a toxics evaluation and required a modification to the permit (see Section C and Regulatory Notes). The facility was determined to be in compliance with toxics regulations with the replacement of these two engines. Since the engines resulted in a slight increase in emissions, the fuel oil limit for the boilers will be lowered to ensure that facility-wide NO<sub>x</sub> and SO<sub>2</sub> emissions remains below the 100 tpy threshold. Additionally, with this permit modification, the facility requested that the Agency remove the requirement to report the number of hours that the boilers operate on natural gas. The facility already reports the amount of natural gas consumed for these boilers and that information can be used to calculate emissions. Since there is no regulatory requirement to log the hours that the boilers operate on natural gas, this condition will be removed from the permit.

Also as part of this modification, Permit Condition B.5.i.ii was changed from "maintain records from the amount of fuel oil" to "maintain records of the amount of each fuel" to match the language in 40 CFR Part 60 Subpart Dc.

## SECTION B DETAILS

### APPLICATION INFORMATION

[List all emission sources (permitted and exempt) reviewed as a result of this application, their associated control devices and pollutants. Provide a detailed discussion of any other items in Section B at bottom under "Application Notes"]

| Emission Source ID     | Emission Source Description<br>1. Type, manufacturer, capacity<br>2. Control device with ID (if any) | Pollutant(s) Emitted  | Miscellaneous Notes  |
|------------------------|--|---|--|
| <b>Memorial Campus</b> |  |   |  |
| ES-1                   | (1) 25.20 million BTU per hour natural gas / No. 2 fuel oil boiler                                   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Superior Boiler Works and is equipped with an oxygen trim system.   |
| ES-2                   | (1) 25.20 million BTU per hour natural gas / No. 2 fuel oil boiler                                   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Superior Boiler Works and is equipped with an oxygen trim system.   |
| ES-3                   | (1) 12.60 million BTU per hour natural gas / No. 2 fuel oil boiler                                   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Superior Boiler Works.  |
| ES-4                   | (1) 25.20 million BTU per hour natural gas / No. 2 fuel oil boiler                                   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Superior Boiler Works and is equipped with an oxygen trim system.   |
| ES-5                   | (1) 1,250 kilowatt, diesel emergency-use generator   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar. This piece of equipment will be removed from the permit since as part of this modification.  |
| ES-25                  | (1) 1,645 kilowatt, diesel emergency-use generator   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | This unit replaces ES-5. The new unit was manufactured by Caterpillar. As noted in Section A, the rating is not what was listed in the application form, but appears to be correct based on what is listed on the equipment. |
| ES-6                   | (1) 1,250 kilowatt, diesel emergency-use generator   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar.  |
| ES-7                   | (1) 1,250 kilowatt, diesel emergency-use generator   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar. This equipment is being removed from the permit as part of this modification.  |
| ES-26                  | (1) 1,645 kilowatt, diesel emergency-use generator   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | This unit replaces ES-7. The new unit was manufactured by Caterpillar. As noted in Section A, the rating is not what was listed in the application form, but appears to be correct based on what is listed on the equipment. |

|       |  |   |  |
|-------|--|---|--|
| ES-8  | (1) 1,135 kilowatt, diesel emergency-use generator         | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar.  |
| ES-15 | (1) 2,250 kilowatt, diesel emergency-use generator         | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar and meets EPA Tier 1 emission levels.   |
| NA    | (2) 20,000 gallon No. 2 fuel oil underground storage tanks | NA  | These tanks are exempt from permitting per the AB Air Quality Code 17.0102 (c)(1)(D)(i). |
| NA    | (3) 20,000 gallon diesel underground storage tanks         | NA  | These tank are exempt from permitting per the AB Air Quality Code 17.0102 (c)(1)(D)(i).  |
| NA    | (1) 10,000 gallon aviation fuel underground storage tank   | NA  | This tank is exempt from permitting per the AB Air Quality Code 17.0102 (c)(2)(D)(i).    |

| <b>New Central Energy Plant – Mission Campus</b> |  |  |   |
|--|--|--|---|
| ES-20  | (1) 28.57 million BTU per hour natural gas / No. 2 fuel oil boiler | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHGs | The current unit is manufactured by Cleaver Brooks and is equipped with a low-NO <sub>x</sub> burner with staged burner technology or flue gas recirculation (FGR). |
| ES-21  | (1) 28.57 million BTU per hour natural gas / No. 2 fuel oil boiler | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHGs | The current unit is manufactured by Cleaver Brooks and is equipped with a low-NO <sub>x</sub> burner with staged burner technology or flue gas recirculation (FGR). |
| ES-22  | (1) 3,000 kilowatt, diesel emergency-use generator                 | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHGs | The current unit was manufactured by Caterpillar and has a Tier 2 rating.   |
| ES-23  | (1) 3,000 kilowatt, diesel emergency-use generator                 | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHGs | The current unit was manufactured by Caterpillar and has a Tier 2 rating  |
| ES-24  | (1) 3,000 kilowatt, diesel emergency-use generator                 | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG  | The proposed unit is manufactured by Caterpillar and has a Tier 2 rating.   |
| <b>St. Joseph Campus</b>                         |  |  |   |
| ES-9   | (1) 16.74 million BTU per hour natural gas / No. 2 fuel oil boiler | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG  | The current unit was manufactured by Kewanee and is equipped with a low-NO <sub>x</sub> burner with flue gas recirculation (FGR).                                   |
| ES-10  | (1) 16.74 million BTU per hour natural gas / No. 2 fuel oil boiler | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG  | The current unit was manufactured by Kewanee and is equipped with a low-NO <sub>x</sub> burner with flue gas recirculation (FGR).                                   |

|       |  |   |   |
|-------|--|---|---|
| ES-11 | (1) 10.08 million BTU per hour natural gas / No. 2 fuel oil boiler | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Kewanee and is equipped with a low-NO <sub>x</sub> burner with flue gas recirculation (FGR). |
| ES-12 | (1) 1,250 kilowatt, diesel emergency-use generator                 | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar.   |
| ES-13 | (1) 1,250 kilowatt, diesel emergency-use generator                 | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar.   |
| ES-14 | (1) 1,250 kilowatt, diesel emergency-use generator                 | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar.   |
| NA    | (1) 20,000 gallon No. 2 fuel oil underground storage tank          | NA  | This tank is exempt from permitting per the AB Air Quality Code 17.0102 (c)(1)(D)(i).   |
| NA    | (1) 20,000 gallon diesel underground storage tank                  | NA  | This tank from permitting per the AB Air Quality Code 17.0102 (c)(1)(D)(i).   |

|   |   |   |  |
|---|---|---|--|
| <b>1 Hospital Drive</b>                           |   |   |  |
| NA  | (1) 30 kilowatt Onan diesel emergency-use generator               | NA  | This generator is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(v)(III).   |
| NA  | (1) 120-gallon diesel aboveground storage tank                    | NA  | This generator is exempt from permitting per AB Air Quality Code 17.0102(c)(1)(D)(i).  |
| <b>SECU Cancer Center (21 Hospital Drive)</b>     |   |   |  |
| ES-17   | (1) 400 kilowatt diesel emergency-use generator                   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar and meets EPA Tier 3 emission levels. This generator is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(v)(III). However, it will be included as a permitted source so that the relevant requirements of NSPS Subpart IIII can be included in the permit. |
| NA  | (1) 300-gallon diesel sub-base storage tank                       | NA  | This tank is exempt from permitting per AB Air Quality Code 17.0102(c)(1)(D)(i).   |
| NA  | (2) 4.5 million BTU per hour Cleaver-Brooks natural gas boilers   | NA  | These boilers are exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).   |
| NA  | (2) 1.0 million BTU per hour AERCO natural gas water heaters      | NA  | These water heaters are exempt from per AB Air Quality Code 17.0102(c)(1)(E)(iii).   |
| NA  | (3) 0.8 million BTU per hour DRISTEEM GTS natural gas humidifiers | NA  | These humidifiers are exempt from requirements per AB Air Quality Code 17.0102(c)(2)(B)(ii).   |
| <b>Doctors Office Building (50 Doctors Drive)</b> |   |   |  |

|    |   |    |   |
|----|---|----|---|
| NA | (1) 2.0 million BTU per hour<br>Peerless natural gas boiler | NA | This boiler is exempt from permitting<br>per AB Air Quality Code<br>17.0102(c)(2)(B)(ii). |
|----|---|----|---|

| <b>Laundry (345 Biltmore Avenue)</b>                |   |   |   |
|---|---|---|---|
| ES-18   | (1) 400 kilowatt diesel emergency-use generator                   | CO, NO <sub>x</sub> , PM, PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOCs, HAPs/TAPs, GHG | The current unit was manufactured by Caterpillar and meets EPA Tier 2 emission levels. This generator is exempt from permitting requirements per AB Air Quality Code 17.0102(c)(2)(B)(v)(III). However, it will be included as a permitted source so that the relevant requirements of NSPS Subpart IIII can be included in the permit. |
| NA  | (1) 840-gallon diesel sub-base storage tank                       | NA  | This tank is exempt from permitting per AB Air Quality Code 17.0102(c)(1)(D)(i).  |
| NA  | (1) 8.369 million BTU per hour Burnham natural gas boiler.        | NA  | This boiler is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).   |
| NA  | (1) 6.267million Btu/hr Burnham natural gas boiler                | NA  | This boiler is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).   |
| NA  | (2) 4.718 million BTU per hour Power Flame natural gas burners    | NA  | These burners are exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).  |
| ES-19   | (1) 500 gallon gasoline aboveground storage tank                  | VOCs, HAPs/TAPs   | This tank is exempt from permitting per AB Air Quality Code 17.0102(c)(1)(D)(ii). However, it will be included as a permitted source so that the relevant requirements of MACT Subpart CCCCCC can be included in the permit.  |
| NA  | (1) 250 gallon diesel aboveground storage tank                    | NA  | This tank is exempt from permitting per AB Air Quality Code 17.0102(c)(1)(D)(i).  |
| NA  | (1) 250 gallon aboveground waste oil storage tank                 | NA  | This tank is exempt from permitting per AB Air Quality Code 17.0102(c)(1)(D)(i).  |
| <b>Education and Research (501 Biltmore Avenue)</b> |   |   |   |
| NA  | (1) 1.57 million BTU per hour Raypack natural gas boiler          | NA  | This boiler has been removed from facility.   |
| <b>Asheville Imaging (534 Biltmore Avenue)</b>      |   |   |   |
| NA  | (2) 0.789 million BTU per hour Weil-McLain natural gas boilers    | NA  | These boilers are exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).  |
| NA  | (2) 0.18 million BTU per hour Lochinvar natural gas water heaters | NA  | These water heaters are exempt from permitting per AB Air Quality Code 17.0102(c)(1)(E)(iii).   |
| <b>Genetics (267 McDowell Street)</b>               |   |   |   |
| NA  | (1) 8 kilowatt Generac natural gas emergency-use generator        | NA  | This generator is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(v)(I).  |
| NA  | (1) 0.726 million BTU per hour Raypack natural gas boiler         | NA  | This boiler is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).   |



|   |  |    |  |
|---|--|----|--|
| <b>Asheville MRI</b> (222 Ashland Avenue) |  |    |  |
| NA  | (2) 0.399 million BTU per hour Raypack natural gas boilers | NA | This generator is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(ii).   |
| <b>Lab Express</b> (261 Ashland Avenue)   |  |    |  |
| NA  | (1) 17 kilowatt Eaton natural gas emergency-use generator  | NA | This generator is exempt from permitting per AB Air Quality Code 17.0102(c)(2)(B)(v)(I). |

### **APPLICATION NOTES**

The application listed one person as their responsible official but had a different person sign the application. An email was sent to the facility to clarify who the responsible official is and this will be listed in the amended permit.

## SECTION C DETAILS

### REGULATORY INFORMATION

(Identify the AB Air Quality Regulations reviewed because of this application. At a minimum, the regulations already listed should be reviewed and reason given for applicability or non-applicability. If a regulation has a standard, list the standard and indicate how the source is in compliance.)

| AB Air Quality Regulation Number / Title                                 | Emission Source ID No(s). Subject  | Notes On Regulation<br>(Compliance demonstration, applicability, etc.)   |
|--|--|--|
| 17.0500 – Title V Procedures and<br>17.0315 – Synthetic Minor Facilities | NA   | The facility is not subject to Title V permitting procedures because it elected to take avoidance limitations that define their potential to emit as less than 100 tons per year for NO <sub>x</sub> and SO <sub>2</sub> (see regulatory notes below). The facility's potential to emit HAPs is less than the 10-ton per year applicability threshold for individual HAPs and the 25-ton per year applicability threshold for combined HAPs.   |
| 17.0700 – Toxic Air Pollutant Procedures                                 | ES-1, ES-2, ES-3, ES-4, ES-6, ES-8, ES-9, ES-10, ES-11, ES-1, ES-13, ES-14, ES-20, ES-21 | In 2015 the facility triggered a toxics review to evaluate combustion emissions from the boilers and emergency generators. All TAPs were found to be below the TAP permitting emission rates (TPERs), except for arsenic, benzene, beryllium, cadmium, chromium, formaldehyde and fluorides. A dispersion modeling analysis performed using AERMOD determined that with operational limits, the facility would be below the acceptable ambient levels (AALs). The associated stack parameters and operational limits were included in their permit. The exempt sources which are subject to GACT standards (ES-15, ES-17, ES-18, ES-22, ES-23, ES-24, ES-25 and ES-26) were included in the modeling and noted in the permit for informational purposes. For further information, please see the regulatory notes below as well as the modeling memo dated September 28, 2015. The modeling demonstration showed that all TAPs were below the AALs. For this modification, the modeling was re-run for arsenic with the new engines and showed no change in the maximum predicted impacts. |
| 4.0524 – New Source Performance Standards (40 CFR 60, Subpart Dc)        | ES-1, ES-2, ES-3, ES-4, ES-9, ES-10, ES-11, ES-20, ES-21                                 | The facility is subject to 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. To maintain compliance with the SO <sub>2</sub> requirements of this regulation, the facility will monitor the sulfur content of the No. 2 fuel oil combusted in the boilers to ensure that it does not exceed 0.5% by weight. The facility will report the results of the monitoring to this Agency on a semi-annual basis.  |
| 4.0524 – New Source Performance Standards (40 CFR 60, Subpart IIII)      | ES-15, ES-17, ES-18, ES-22, ES-23, ES-24, ES-25, ES-26                                   | These emergency-use generators are subject to the requirements of 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, which requires the manufacturer to certify that the generators meet the emission limits listed in the subpart. The generators must be equipped with a non-resettable hour meter and nonemergency use (e.g., testing) is limited to 100 hours per year. Ultra-low sulfur diesel (ULSD) fuel must be used.  |
| 4.0530 – Prevention of Significant Deterioration                         | NA   | The facility does have potential SO <sub>2</sub> emissions above the PSD major source applicability threshold. An avoidance limit will be included in the permit.  |
| 4.1111 – MACT (40 CFR 63, Subpart ZZZZ)                                  | ES-15, ES-17, ES-18, ES-22, ES-23, ES-24, ES-25, ES-26                                   | Because these emergency generators commenced construction after June 12, 2006, they are considered new sources (located at an area source of HAP emissions), making them subject to 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. Compliance with NESHAPS Subpart ZZZZ is achieved by compliance with NSPS Subpart IIII. ES-6, ES-8 and ES-12 through ES-14 are <u>existing</u> stationary institutional emergency engines located at an area source and they are not subject to Subpart ZZZZ.  |
| 4.1111 – MACT (40 CFR 63, Subpart CCCCC)                                 | ES-19  | This gasoline tank is subject to 40 CFR Part 63, Subpart CCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. The required management practices include minimizing gasoline spills and cleaning spills expeditiously.   |

|  |  |   |
|--|--|---|
| 4.1111 – MACT (40 CFR 63, Subpart JJJJJ)                         | NA   | None of the facility's boilers are subject to 40 CFR Part 63, Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers. The rule is generally applicable to solid and liquid fuel-fired boilers; however, boilers that are also gas-fired and burn liquid fuel only during periods of gas curtailment, gas supply emergencies, startup, or for periodic testing not to exceed 48 hours during any calendar year, are not subject to this subpart. Mission Hospital has submitted an Initial Notification indicating that all of its boilers will burn fuel oil only during such periods. However, relevant requirements of this subpart have been included in a permit condition in case the facility decides to operate the boilers on fuel oil in the future. |
| 4.0503 – Particulates from Fuel Burning Indirect Heat Exchangers | ES-1, ES-2, ES-3, ES-4, ES-9, ES-10, ES-11, ES-20, ES-21   | This regulation limits PM emissions from each of these sources to 0.34 - 0.49 lb/million Btu (MMBtu), depending upon the heat input capacity (see note on 4.0503, below). The AP-42 PM emission factor for each of these boilers is only 0.024 lb/MMBtu when burning No. 2 fuel oil, and even less when burning natural gas. Thus, the facility is in compliance.   |
| 4.0516 – Sulfur Dioxide Emissions from Combustion Sources        | Boilers:<br>ES-1 - ES-4, ES-9 - ES-11, ES-20, ES-21<br>Emergency Generators: ES-5 - ES-8, ES-12 - ES-15, ES-17, ES-18, ES-22, ES-23, ES-24, ES-25, ES-26 | This regulation limits SO <sub>2</sub> emissions from these sources to 2.3 lb/MMBtu. The AP-42 SO <sub>2</sub> emission factor for natural gas combustion for the boilers is 0.0075 lb/MMBtu. The boilers are subject to the SO <sub>2</sub> emission limit of NSPS Subpart Dc when burning No. 2 fuel oil. The AP-42 SO <sub>2</sub> emission factor for (0.5% S) diesel fuel combustion for emergency generators is 0.51 lb/MMBtu. Thus, the facility is in compliance.   |
| 4.0521 – Control of Visible Emissions                            | Boilers:<br>ES-1 - ES-4, ES-9 - ES-11, ES-20, ES-21<br>Emergency Generators: ES-5 - ES-8, ES-12 - ES-15, ES-17, ES-18, ES-22, ES-23, ES-24, ES-25, ES-26 | This regulation limits visible emissions from each of these emission sources to no greater than 20% opacity due to their post-1971 manufacture date. Compliance with this regulation will be determined through facility self-monitoring and Agency inspections.  |
| 4.1806 – Control and Prohibition of Odorous Emissions            | Entire Facility  | This regulation requires that the facility prevent odorous emissions from causing or contributing to objectionable odors beyond their property line. Compliance with this regulation will be determined through Agency inspections.   |

### **REGULATORY NOTES**

**17.0315.** Potential emissions of NO<sub>x</sub> and SO<sub>2</sub> are each above the 100 tpy Title V major source threshold., The synthetic minor limitations for the facility are that boilers ES-1, ES-2, ES-3, ES-4, ES-9, ES-10, ES-11, ES-20, and ES-21 combust a total of no more than 1.6 million gallons of No. 2 fuel oil, and that emergency-use generators ES-6, ES-8, ES-12, ES-13, ES-14, ES-15, ES-17, ES-18, ES-22, ES-23, ES-24, ES-25 and ES-26 each operate no more than 100 hours for non-emergency purposes during any consecutive 12-month period (see Emission Notes). This will maintain facility-wide potential NO<sub>x</sub> and SO<sub>2</sub> emissions below 100 tons per year. Because actual emergency generator operation and No. 2 fuel oil consumption are well below these levels, the facility can continue to report the required parameters annually, rather than on a rolling 12-month basis.

For this permit modification, the limit for the total amount of fuel oil was changed from 1.9 million gallons to 1.6 million gallons to keep NO<sub>x</sub> emissions below 100 tons per year.

**4.0503.** The previous PM emissions limits (E) were recalculated based on the total heat input capacity (Q) when each of the boilers was installed. The equation is:  $E_{(lb/MMBtu)} = 1.090 \times Q_{(MMBtu/hr)}^{-0.2594}$

Memorial Campus boilers ES-1, ES-2, and ES-3 appear to have been installed together, replacing the previous boilers. Based on the total heat input of the three boilers (63.0 MMBtu/hr), the PM emissions limit for each of these boilers is 0.37 lb/MMBtu. ES-4 was added later, so based on the increased total heat input of the four boilers (88.2 MMBtu/hr), the PM emissions limit for ES-4 is 0.34 lb/MMBtu.

St. Joseph Campus boilers ES-9 and ES-10 were installed together, replacing two previous (Titusville) boilers. ES-11 was already operating at the time. Based on the total heat input of these three boilers (43.56 MMBtu/hr), the PM emissions limit for ES-9 and ES-10 is 0.41 lb/MMBtu. When ES-11 was installed, it appeared that two 6.30 MMBtu/hr Titusville boilers were in operation. Based on the total heat input of those three boilers (22.68 MMBtu/hr), the PM emissions limit for ES-11 is 0.49 lb/MMBtu. For the proposed boilers, ES-20 and ES-21 (each 28.57 MMBtu/hr), the PM emissions limit (based on total heat input) is 0.38 lb/MMBtu/hr.

**4.111.** If the facility's boilers, ES-1, ES-2, ES-3, ES-9, ES-10, ES-11, ES-20, and ES-21, burn fuel oil, except as noted above (e.g., during natural gas curtailment), that boiler would become subject to MACT Subpart JJJJJJ. In that event, the specific requirements would depend on the particular boiler. Boilers with a heat input capacity over 5 MMBtu/hr, would require performing biennial tune-ups. However, because ES-1, ES-2, and ES-4 have an oxygen trim system (as confirmed in a 5/22/13 email from Tim O'Rourke), the tune-ups for those boilers can be performed every five years. The proposed boilers, ES-20 and ES-21, also have oxygen trim systems, according to documents provided in the permit application for the New Central Energy Plant. In addition boilers with a heat input capacity of 10 MMBtu/hr or more, which includes all of Mission Hospital's permitted boilers, would require performing a one-time energy assessment.

The February 1, 2013 revisions to MACT Subpart JJJJJJ added § 63.11194(e), which states:

*An existing dual-fuel fired boiler meeting the definition of gas-fired boiler, as defined in § 63.11237, that meets the applicability requirements of this subpart after June 4, 2010 due to a fuel switch from gaseous fuel to solid fossil fuel, biomass, or liquid fuel is considered to be an existing source under this subpart as long as the boiler was designed to accommodate the alternate fuel.*

Prior to a previous revision, existing dual-fuel boilers burning natural gas that later switched to burning fuel oil were considered to be new boilers. Such boilers with heat input capacities of 10 MMBtu/hr or more had been required to conduct stack testing in addition to performing the biennial tune-ups and the one-time energy audit. The revised rule eliminated the stack testing requirement for these boilers.

Mission Hospital's currently permitted boilers, ES-1, ES-2, ES-3, ES-9, ES-10, and ES-11 are classified as existing boilers because construction commenced on or before June 4, 2010.

**17.0700.** In September of 2015 as part of an expansion of their central energy plant, Mission submitted air dispersion modeling for arsenic, benzene, beryllium, cadmium, chromium (VI Soluble), fluoride, fluorides, and formaldehyde with their permit application because they exceed the TPER for these pollutants. The emergency engines are exempt from toxics due to Chapter 17.0702(a)(27)(B), however State Session Law SL-2012-91, which requires the Agency to "review the application to determine if the emission of toxic air pollutants from the source or facility would present an unacceptable risk to human health". The facility voluntarily conducted air dispersion modeling. Emergency engines were conservatively estimated to run 500 hours. The submitted modeling demonstrated that facility emissions would be significantly below the AALs for benzene, beryllium, cadmium, chromium (VI Soluble), fluoride, fluorides, and formaldehyde. For arsenic, the facility was at 81% of the AAL. Insignificant combustion sources were not included in the modeling, but emissions from these sources are minimal and would not cause the facility to exceed the AAL for any pollutant.

With the replacement of the two emergency engines with engines rated slightly larger than the engines that were included in the previous modeling demonstration, the Agency re-ran the arsenic modeling using the slightly higher emission rates from the new engines. This did not change the modeling results for the highest impact AAL of arsenic, since emission rates from these two engines only increased slightly and are a small percentage of the total emissions for all of the sources.

| <b>SECTION D DETAILS</b>                                    |   |                          |                                   |  |
|---|---|--------------------------|-----------------------------------|--|
| <b>EMISSION INFORMATION</b>                                 |   |                          |                                   |  |
| <b>Calculation Method Codes</b><br>(List all that apply)    | 1 = Stack test result<br>2 = Material (mass) balance<br>3 = EPA approved information (AP-42, CTG, etc.)<br>4 = Other (specify in table below) |                          |                                   |  |
| <b>Calculation Rejection Codes</b><br>(List all that apply) | 1 = Calculation error<br>2 = Wrong emission factor(s) used<br>3 = Control efficiency(ies) not accepted<br>4 = Other (specify in table below)  |                          |                                   |  |
| <b>Emission Source (ID No.)</b>                             | <b>Calculation Method Code</b>  | <b>Accept or Reject?</b> | <b>Calculation Rejection Code</b> | <b>AB Air Quality Calculations Attached?</b> |
| ES-1 - ES-15, ES-17, ES-18, ES-20 – ES-26                   | 3   | NA                       | NA                                | Yes  |

### **EMISSION NOTES**

The facility made no emission calculations of its own. All calculations were made by AB Air Quality staff. Emissions include a limit of 1,600,000 gallons per year of fuel oil combusted by the boilers is necessary to keep the emission from NOx under 100 tons/year. The potential emissions for the generators were calculated at 100 hour per year limit on the emergency generators. ES-17 and ES-18 generators are exempt from permitting but are included in the permit to include the requirements of NSPS Subpart IIII. Emergency generators subject to Subpart IIII are limited to 100 hours per year for non-emergency operation. Emissions were not calculated for two small (8 kW and 17 kW) natural gas-fired emergency generators located, respectively, at the Genetics building (267 McDowell Street) and Lab Express (261 Ashland Avenue).

| <b>SECTION E</b>  |
|---|
| <b>SUPPORTING DOCUMENTATION</b><br>(Provide brief description of any attachments) |

1. Permit Application
2. Copy permit modification fee check
3. Emission Calculations made by AB Air Quality
4. Draft Permit
5. Draft Cover Letter



Asheville-Buncombe  
**Air Quality Agency**

## Memo

To: Air Quality Board  
From: James Raiford, Permitting Program Manager  
CC: Ashley Featherstone, Director  
Date: January 16, 2024  
Re: Permit Amendment - Name Change

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On August 7, 2023, the Agency received notification that Raytheon Technologies Corporation – Pratt and Whitney Division legally changed their name to RTX Corporation. A search of the Secretary of State’s business registration shows that the company is registered to do business in the state of North Carolina. The General Manager of RTX Corporation, Daniel Field, signed the notification. The Agency received the \$100 application fee for this administrative change on December 12, 2023.

While updating the name of the facility, the Agency is proposing to add a new General Permit Condition that allows changes to the permit if they meet the conditions in Chapter 17.0318. These changes are allowed to be processed as administrative amendments per Chapter 17 .0316 of the AB Air Quality Code.

**Conclusions, Comments, and Recommendations.**

It is recommended that the permit be amended to reflect the ownership and name change and other updates as indicated above.

|  |                        |
|--|------------------------|
| Signature: _____                       | Date: <u>1/16/24</u>   |
| Reviewer Signature: <u>Patsy Brown</u> | Date: <u>1-16-2024</u> |
| Director Signature: <u>[Signature]</u> | Date: <u>1-16-2024</u> |