Asheville-Buncombe Air Quality Agency

MEMORANDUM

TO: Asheville-Buncombe Air Quality Agency Board of Directors

FROM: Ashley Featherstone, Director

RE: Agenda for March 14, 2024

DATE: March 7, 2024

Enclosed, please find the Agenda for the Asheville-Buncombe Air Quality Agency Board meeting to be held on **Thursday March 14, 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
MARCH 14, 2024 BOARD MEETING

1. **Public Comment Protocol Announcement**

2. **Adjustment and Approval of Agenda**

3. **Consent Agenda:**
   A. Approval of minutes from January 25, 2024

4. **Unfinished Business:**
   A. Nondiscrimination policy

5. **Director's Report:**
   A. FY25 Budget Power Point Presentation
   B. FY25 Budget Discussion
   C. EPA Grant Updates-Inflation Reduction Act (one time monitoring funds, state Primary Climate Action Plan Released)
   D. Revised PM Standard Issued by EPA
   E. EPA Power Plant greenhouse gas rule update
   F. Asheville-Buncombe Sustainable Microbrewery Project Update
   G. Clean Air Excellence Awards-Taking Nominations
   H. Air Quality Awareness Week: May 6-10
   I. Monitoring Update
   J. Facility Permit Modifications

Facility Name	Type of Facility	Facility Classification	Location	Changes from Existing Permit
Milkco, Inc.	Fluid Milk, Juice and Water Processing, Packaging & Distribution Facility	Synthetic Minor	Deaverview Road, Asheville	Update permit conditions to change generator to emergency use and reclassify as a Small facility
RTX Corporation, Pratt and Whitney	Airplane Parts Manufacturer	Small	Biltmore Park West, Asheville	Update permit to reflect post construction details including number and size of emergency generators, changes in particulate matter source emission rates and associated exhaust points, updates to air pollution modeling parameters.

6. **New Business:**
   None

7. **Other Business:**
   A. Legal Counsel Report
   B. Advisory Committee Report

1. Committee met February 15, 2024

C. Calendar
   1. Next meeting May 9, 2024
D. Announcements

8. Public Comment

9. Adjournment

Asheville-Buncombe Air Quality Agency

MEMORANDUM

TO: Asheville-Buncombe Air Quality Agency Board of Directors

FROM: Ashley Featherstone, Director

RE: Minutes for January 25, 2024

DATE: March 7, 2024

Enclosed, please find the Minutes for the Asheville-Buncombe Air Quality Agency Board meeting held on **Thursday January 25, 2024 at 4:00pm.** The next meeting is scheduled for **Thursday, March 14, 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 Thursday, January 25, 2024, 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:	**Members Absent:**
Joel Storrow	*Garry Whisnant*
Karl Koon	
Evan Couzo	
Ned Guttman	

Staff Present: *Ashley Featherstone, Director; Kevin Lance, Field Services Program Manager; James Raiford, Permitting Program Manager; Mike Matthews, Senior Air Quality Specialist; Betsy Brown, Air Quality Coordinator; Alex Latta, Senior Air Quality Specialist*

Others Present: *Max Taintor, Strategy and Innovation; Patti Beaver, CIBO*

Mr. Storrow called the meeting of the Asheville-Buncombe Air Quality Agency Board of Directors to order on January 25, 2024, at 4:00 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. Couzo seconded the motion.
   All present – yes
   The motion passed 4-0.

3. **Consent Agenda**
   A. Approval of special meeting (retreat) minutes from November 8, 2023
      Dr. Guttman made the motion to approve the minutes. Dr. Couzo seconded the motion.
      All present – yes
      The motion passed 4-0.

   B. Approval of minutes from November 8, 2023
      Dr Guttman made the motion to approve the agenda. Dr. Couzo seconded the motion.
      All present – yes
      The motion passed 4-0.

4. **Unfinished Business:**
   A. Nondiscrimination policy

The board discussed this at the last meeting and members requested that Ms. Broughton, the county attorney, review the policy before it is approved and posted. Ms. Broughton's only suggestion was that the Agency include a Spanish translation at the end of the policy. The Agency brought the policy back to the board for any further discussion and approval. It was suggested that additional language be added to the policy that states the process that would occur after they file a complaint. This would include a time frame for consideration and the method of contacting the complainant with the results.

5. Director's Report:

A. FY25 Budget

Ms. Featherstone and Ms. Brown presented the first draft of the FY2025 budget to the Assistant County Manager. We have another meeting next week. The budget includes the additional amounts for the 103 and 105 Grants that the Agency was awarded for the 2024 budget years. This was the first substantial increase in many years, and we anticipate that we will continue to be funded at that level, but that is up to Congress.

The draft budget includes funding for the 7th position, the Air Quality Specialist. We need some flexibility and redundancy, which is hard to achieve with 6 staff. With possible retirements an extra position gives us additional restructuring possibilities. Much will depend on who we hire and what their skills are.

The needs assessment we did for the EPA for our monitoring program included a monitoring position for a year, a vehicle and some additional equipment; however, we have yet to hear back about what this award will be (level of funding). This also would not fund a position past the first year, but hiring another staff member comes with a commitment to paying them. With retirements and restructuring, we would hope to continue to have funds for the position. Although we plan to budget for the position, that does not mean that we have to fill the position. Having the position funded would give us additional flexibility as we restructure due to staff retiring.

The 2025 budget also includes funds for a vehicle if the EPA needs funding does not cover it. This would be to replace the oldest agency vehicle. Additional funds have been added to education and public outreach for purchase of radon testing kits which would be provided free to the public during January, Randon Awareness Month and an educational display at the PM monitoring site where we have a shelter for citizen science and educational use.

With the proposed budget we are projecting the fund balance draw to be around $180,000. This does not include a CPI increase for salaries if the County Commissioners vote to approve one for FY2025.

B. Blue Horizons Project Community Council

The Blue Horizons Project is sponsored and funded by the City of Asheville and Buncombe County governments. Duke Energy is also involved. It evolved from an energy innovation task force to help meet the 100% renewable energy plan to which the city and county are committed. The Council had an opening recently and Ms. Featherstone was asked to apply. She was accepted and is now serving on that Council. Someone from the City Council is a member. Chairman Brownie Newman was the county representative, now Commissioner Parker Sloan is serving and Chairman Newman is cycling off the commission next year. Projects that reduce greenhouse gas emissions are their focus which overlaps our interests and projects like the Sustainable Brewery initiative and projects for our EPA Advance program.

C. Radon Awareness month

January is Radon Awareness Month, which we promote every year. The county helped us with a news story this year. We promoted the free test kits available from the state. Those are all gone for this year, but the kits are not expensive. We receive a lot of phone calls about this every year. Buncombe County has some of the highest radon levels in the state due to its geology. It is recommended that in addition to one's home, well water also be tested for radon. Mapping for levels and more information can be found at https://www.ncdhhs.gov/divisions/health-service-regulation/north-carolina-radon-program. Radon is also an issue in caves. Radon is the leading environmental cause of lung cancer in the U.S., second only to smoking.

D. Monitoring Update

Mr. Lance said that the Agency had good data completeness for both PM2.5 and ozone in CY2023. We finished the year at 97.5% for PM2.5 and 95.6% data completeness for ozone. In December we took our ozone equipment to Raleigh to get certified, which must be done annually. We got the equipment back a couple of weeks ago. We will be hooking it up and doing our initial calibration in the middle of February, so that we will be ready for the start of ozone season on March 1st. This will be the 13th year that we have run this monitor. We received IRA grant money to purchase new ozone monitoring equipment, which we will probably start operating next year.

E. Facility Permit Modifications

Facility Name	Type of Facility	Facility Classification	Location	Changes from Existing Permit
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

Modeling was run for the Mission permit since the diesel generators had a slightly greater capacity than the ones that were being replaced. There were no permitting issues with the larger generators but the fuel oil usage limits for the boilers were adjusted to reflect the change. There was discussion concerning Mission Hospital's synthetic minor designation; what a synthetic minor designation means; and whether or not the Agency could require that they be a Title V source. Staff explained that the mechanism in place for synthetic minors is an acceptable part of the permitting process. A limit is accepted by the facility that keeps them from being subject to Title V. If the facility exceeded the permit limits, then that would be a violation. There is a process for how this is addressed. Staff also talked about the facility's ability to run the natural gas boilers on fuel oil. With the larger natural gas pipeline installed a few years ago, it is rare that Duke Energy calls for a curtailment of natural gas where the boilers at the facility are required to run on fuel oil. For maintenance and inspections, the boilers are run periodically on fuel oil. Fuel oil has higher emissions and that is why they need a limit to keep their emissions under Title V thresholds.

Mr. Koon made the motion to approve the Mission Hospital permit modification. Dr. Gutman seconded the motion.
Mr. Koon- Yes
Dr. Guttman – Yes
Dr. Couzo – No
Mr. Storrow- Yes
The motion passed 3-0.

Mr. Koon made the motion to approve the amended permit for Raytheon. Dr. Guttman seconded the motion.
All present – yes
The motion passed 4-0.

6. **New Business**
   None

7. **Other Business**
   A. Legal Counsel Report
      Ms. Broughton was not present.

   B. Advisory Committee Report
      1. The committee did not meet in December. They are scheduled to meet February 15, 2024.

C. Meeting with Buncombe County Manager and Assistant Manager
Mr. Storrow and Ms. Featherstone had a meeting with Avril Pinder, the County Manager, and Sybil Tate, Assistant County Manager, to review the PowerPoint presentation county staff put together. Max Taintor, with Strategy and Innovation, a county department, did extensive research on how our agency and the other two local NC air quality agencies are funded and structured within their respective counties. County management did not consider taking on the Agency as a county department in BCFY2025. Ms. Featherstone hopes to share the PowerPoint, which is in a draft form, with the rest of the board soon. It was agreed that county management and the Agency would get back together later on in the year to discuss. In the summer, county management and the Agency may introduce the idea to county commissioners to receive their input and see if there is interest.

D. Calendar
1. Next meeting March 14, 2024

E. Announcements
Ms. Featherstone attended the Clean Vehicles Coalition ceremony. They gave an award to Biltmore for their propane initiatives. Other groups were also recognized.

We are still working with the Buncombe County Schools and other partners to support their clean School Bus project. 114 electric buses have been awarded in North Carolina but unfortunately, Buncombe County did not receive any of the second-round funds. Jeremy Stowe, Transportation Director with Buncombe County Schools, is submitting an application for the third round of EPA funds. We met with Duke Energy and found that they had some additional funding the county could sign up for; Buncombe County Schools would be eligible for additional funding for two buses for a vehicle to grid project. This would cover the gap that the EPA funding does not cover which is needed for the charging infrastructure. The commissioner's subcommittee on Energy and the Environment has asked us to come back to their meeting in February with an update on the school bus funding.

8. **Public Comment**
None

9. **Adjournment**
Mr. Koon made the motion to adjourn. Dr. Couzo seconded the motion.
All present – yes
The motion passed 4-0.
The meeting was adjourned at 4:44 pm.

Asheville-Buncombe
Air Quality Agency

Buncombe County
FY 2025 Budget Presentation

Ashley Featherstone and Betsy Brown

Asheville-Buncombe Air Quality Agency

Agenda

A. Strategic Alignment, Goals, & Accomplishments

B. High-Level Summary
   - Recent trends
   - Headcount
   - Operating Expenses

C. What's New?
   - Personnel – Fill vacant position, budget for temp and intern
   - Operating – File Digitization, vehicle replacement
   - Revenues – Increase in grant funds
   - Fee Changes – Title V fees CPI increase

D. Equity Analysis Tool

Asheville-Buncombe Air Quality Agency

Strategic Alignment, Goals, & Accomplishments

Accomplishments in FY24

- Met all EPA requirements for local Air Quality Program
- Upgrading and expanding air pollution monitoring network
- Partnership with UNCA-Community Science Station
- Complaint Module in Accela completed and in use by Agency. Sharing data with Code Enforcement Workgroup.
- Worked with LOS, Sustainability to replace EV charging equipment at Land of Sky.
- Worked with Sustainability on white paper for Clean Heat initiative submitted to NCDEQ for CPRG funds
- Collaborated on Clean School Bus Initiative

Strategic Focus Areas

Operational Excellence

- Improve customer service and service to the community

Environmental and Energy Stewardship

- Participate in county initiatives including Vehicle Evaluation Team and Subcommittee on Energy and Environment.
- Promote energy efficiency programs - permitted facilities and community.
- Utilize EPA's Advance program to increase public engagement and decrease emissions. EE and Mobile Source Reductions
    - Sustainable Brewery Project
    - Clean School Bus Program

Goals for FY25

- Continue to modernize data management systems with IT
    - Add permitted facilities to Accela
    - Take electronic payments from facilities
- File retention policy and digitization project
- Continue Partnerships with UNCA (low-cost air sensors in community- EJ project, Sustainable Brewery Project)
- Apply for EPA IRA funding for emissions reduction projects
- Educational display at Community Science Shelter and Air Quality monitoring site.
- Increase community outreach- radon test kits and working with schools on Community Science Station.
- Replace eligible vehicle with electric vehicle

High-Level Summary

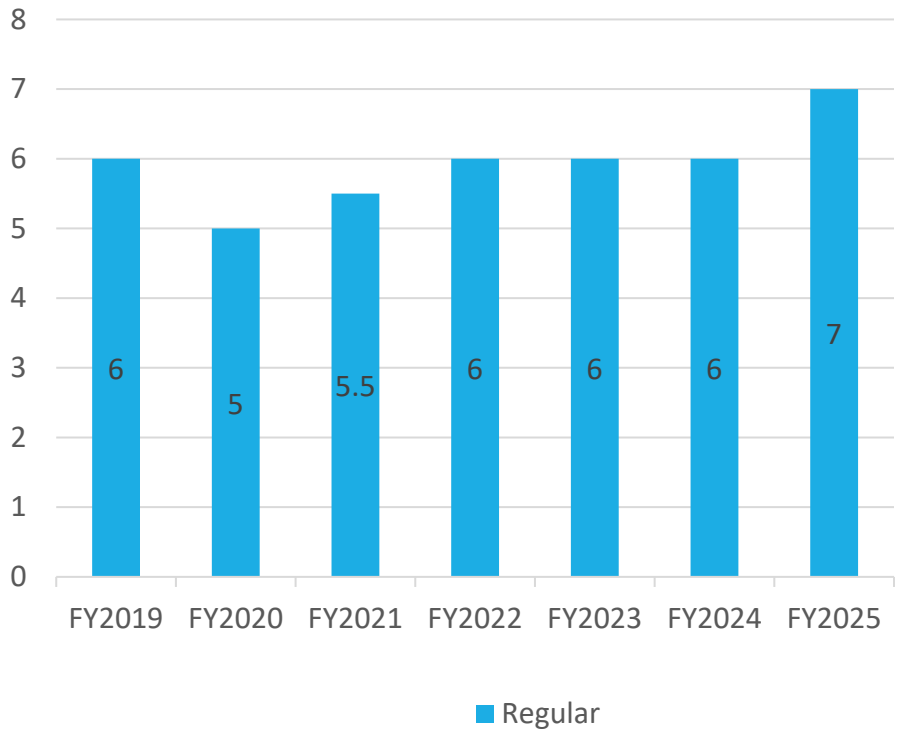
Asheville-Buncombe Air Quality Agency

- Filling vacant position
  - Succession planning and restructuring
- Funding Digitization Project
- Internship funding
- Community outreach
- The Air Quality fund balance continues to be healthy, but staff expect that to be reduced in current and future budget years.

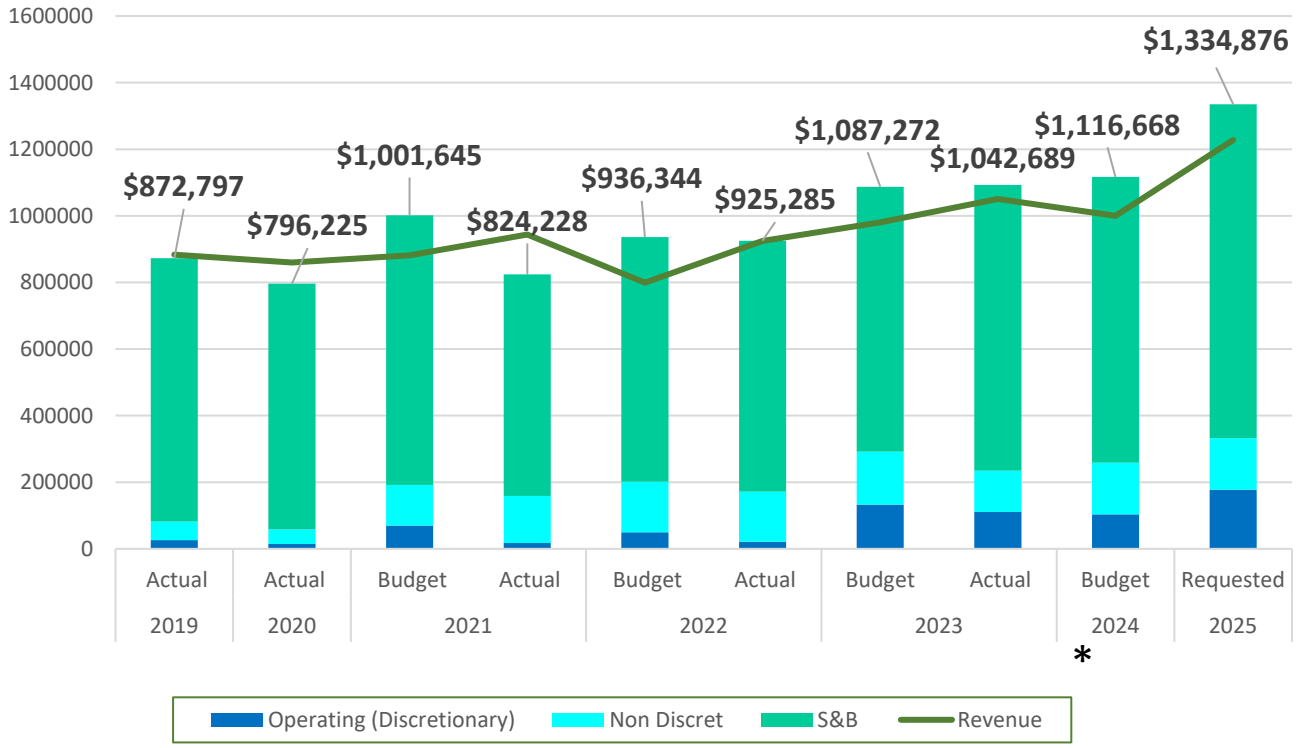
FUND BALANCE				
FY19	FY20	FY21	FY22	FY23
$534,474	$596,736	$716,382	$719,071	$715,689

Asheville-Buncombe Air Quality Agency

Headcount



Operating expenses



* Revenue does not include fund balance

Asheville-Buncombe Air Quality Agency

What's New? Personnel

Personnel

- New position requests:
  - Budget for open Air Quality Specialist position
  - Temporary part time for digitization project
  - Summer intern for Air Quality project

Cost: FY25 total cost

- Full time open position : $ 104,387
- Part-time position: $ 10,000
- Intern: $3,600

Why? Opportunity to restructure with succession planning and better allocate responsibilities.

Increase staffing to accommodate continuity of operations.

How does this advance your strategic plan or business plan?

- Improve customer service – operational excellence
- Continue Energy Star program to promote reductions in GHG emissions at local breweries

Risks of not approving:

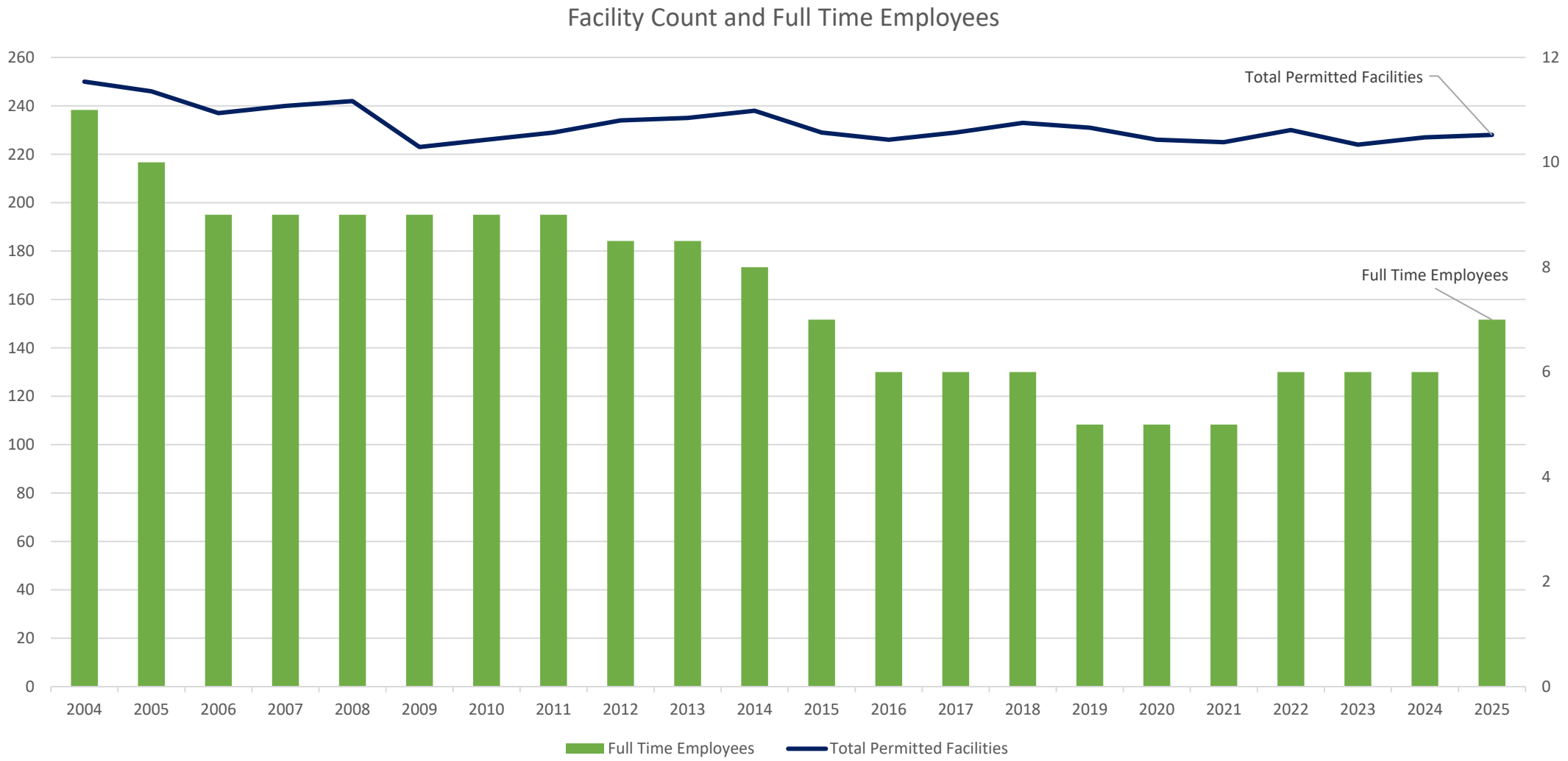
- Unable to maintain continuity of operation (monitoring, permitting, and compliance)
- Unable to start digitalization project
- Unable to carry on Microbrewery Energy Star project

Alternatives:

- What could you do without to get this expansion?
- Is there an existing position that could be altered to support this need? No

Asheville-Buncombe Air Quality Agency

Permitted Sources and Full Time Employees



Revenues

Asheville-Buncombe Air Quality Agency

Grants

EPA 105 Grant

- Local air quality program
- FY2022 Revenue: $210,642
- FY2023 Revenue: $214,517
- FY2024 Revenue: $280,000
- *FY2025 Revenue: $280,000

**(dependent on budget approved by Congress-FY 2024- first significant increase since 2004)*

EPA 103 PM 2.5 Grant

- PM2.5 Monitoring program
- FY2022 Revenue: $60,000
- FY2023 Revenue: $60,000
- FY2023 ARP Revenue: $75,700**
- FY2024 CAA Revenue: $42,214**

***(one time funding for monitor and other replacement equipment)*

- FY2024 Revenue: $84,000
- FY2025 Revenue: $84,000
- *FY2025 IRA Revenue: $166,000

($50k vehicle+$56k equipment+$60k for ½ of a position)

**(dependent on budget approved by Congress-FY 2025- first significant increase since 2004)*

Other Revenues

Gas tax reimbursement

- FY2022 Revenue: $153,344
- FY2023 Revenue: $152,670
- FY2024 Revenue: $150,000
- FY2025 Revenue: $150,000

(holding steady despite move to electric vehicles)

Permitting Fees

- FY2022: $502,005
- FY2023: $524,898
- FY2024: $512,500
- FY2025: $527,700

(2022 increased fees for first time in 11 years. Included CPI increase for Title V fees- helps to offset lost income from DEP moving from coal to gas)

Total Revenues (budget):

- FY2024: $ 999,965 *(includes fund balance draw $116.7k)*
- FY2025: $1,227,700 *($107k fund balance draw-includes vehicle, additional staff, and CPI increase)*

Fee Changes

Asheville-Buncombe Air Quality Agency

Fee	Description	Existing rate	Proposed rate	Why?	Estimated Impact
Title V permit fees	This annual CPI increase was adopted into our rules with our fee increases in September 2021.	See final slide for details	Increase of 5.43149%	The Title V fees are required to be sufficient to fully support the program.	Increase in annual revenues by ~$5,740 for TV permitting fees.
Title V tonnage fee	The tonnage fee increase for Title V (TV) facilities may be considered as part of the Agency's budget process each year and requires Air Quality Board approval.		Increase of $3 per ton of emissions		Increase in annual revenues by ~$3,924 if the TV tonnage fee increase is approved.

Total increase = approximately $9,664 in FY25

FY25 Budget Equity Questions

Asheville-Buncombe Air Quality Agency

Alignment with Equity Goals	Equity Considerations
• We are moving forward with our digitalization plans. This will make facility and emissions data more accessible to all Buncombe County residents. • Our recently upgraded and expanded air quality monitoring site is in an EJ area.	• Marginalized or underserved communities have historically experienced poorer air quality partly due to the proximity of air pollution sources to those communities. • We are working with Dr. Evan Couzo (UNCA) with a community sensor project mapping PM emissions in historically redlined districts. Low-cost air quality sensors are now located at Asheville City Schools.

Asheville-Buncombe Air Quality Agency

AB Air Quality Permitting Program

- 7 Title V Facilities
- 10 Synthetic Minor Facilities
- 56 Small Facilities
- 150 Stage I Vapor Recovery Facilities
- Annual Full Compliance Evaluations of all Title V and Synthetic Minor Facilities
- Biennial Inspections of Small Facilities
- Annual Inspections of Stage I Vapor Recovery Facilities

Pratt and Whitney-2023

Asheville-Buncombe Air Quality Agency

AB Air Quality Compliance and Enforcement

- Asbestos and Demolition Permitting and Inspection Program
  - 300+ Permits issued a year
- Open Burning
  - 70-100 Complaints Annually
  - Same Day Response

Monitoring Network

- Unlike other local programs, Asheville-Buncombe Air Quality Agency operates a joint PQAO with North Carolina DEQ
- PM 2.5 – Board of Education Building
  - BAM 1022
  - ThermoFisher 2025i
  - TeleDyne T640X
- Ozone – Bent Creek
  - ThermoFisher Model 49i
- Air Toxics – AB Tech
  - Xonteck 911 Volatile Organic Compound Sampler

Asheville-Buncombe Air Quality Agency

American Rescue Plan Grant (ARP)

Awarded $75,700 for the purchase of the following:

TeleDyne T640X (PM10)

Thermo Scientific 49iQ Analyzer and Primary Standard

Asheville-Buncombe Air Quality Agency

Inflation Reduction Act Grant (IRA)

Awarded $46,200 for the purchase of the following:

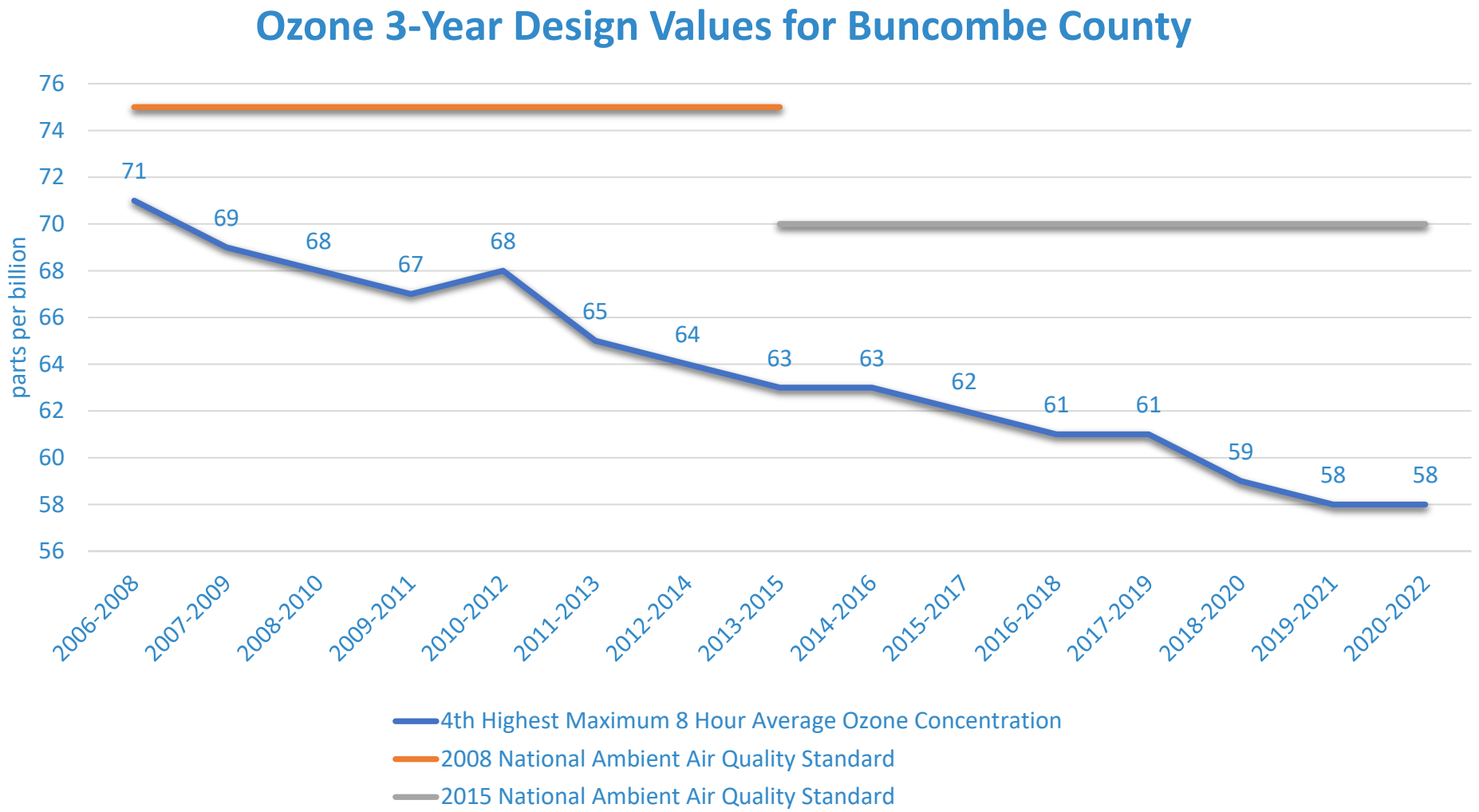
Alicat FP-25

Thermo Scientific 49iQ Analyzer and Primary Standard

Nasal Ranger

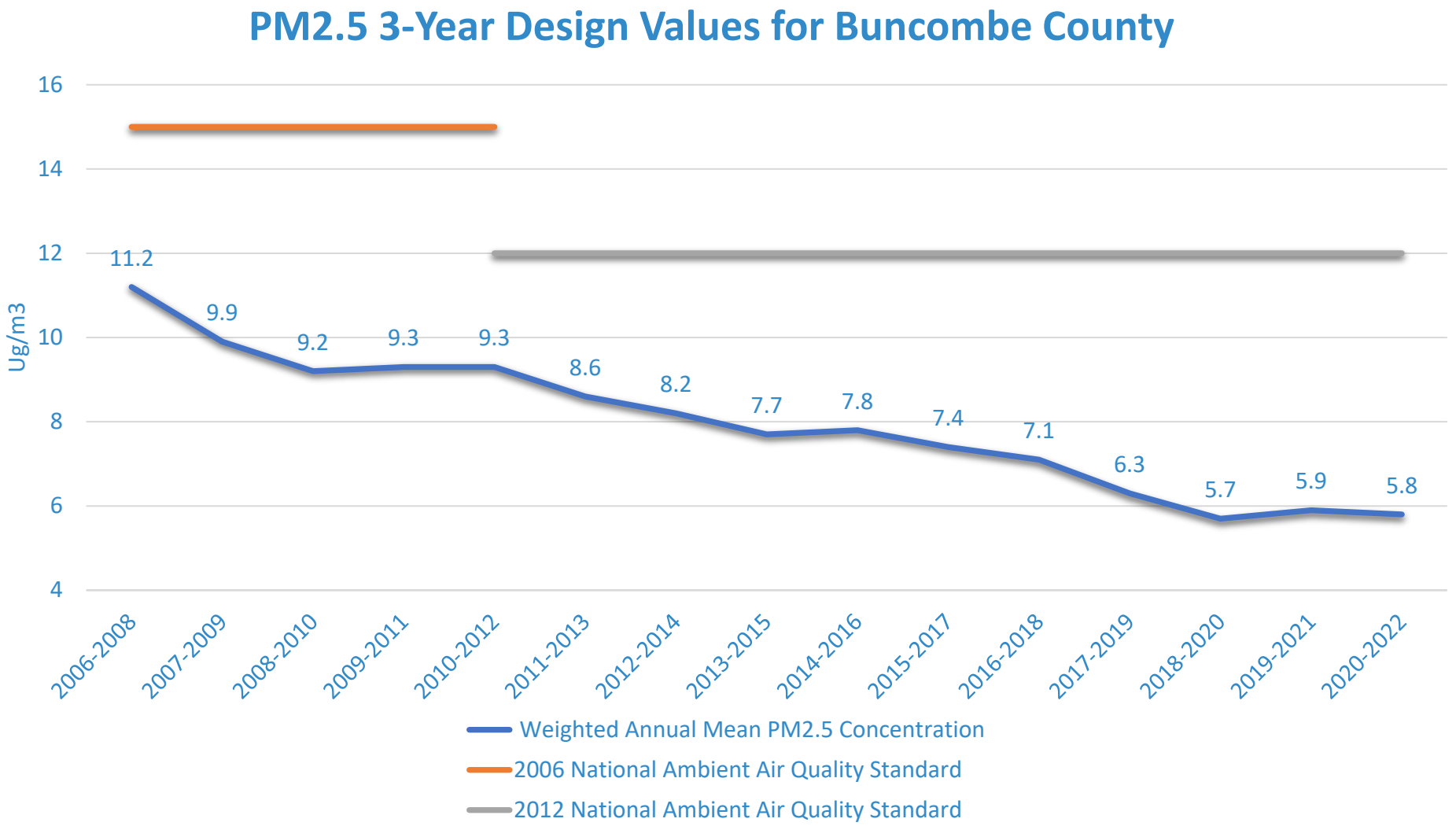
Asheville-Buncombe Air Quality Agency

Ozone Levels in Buncombe County



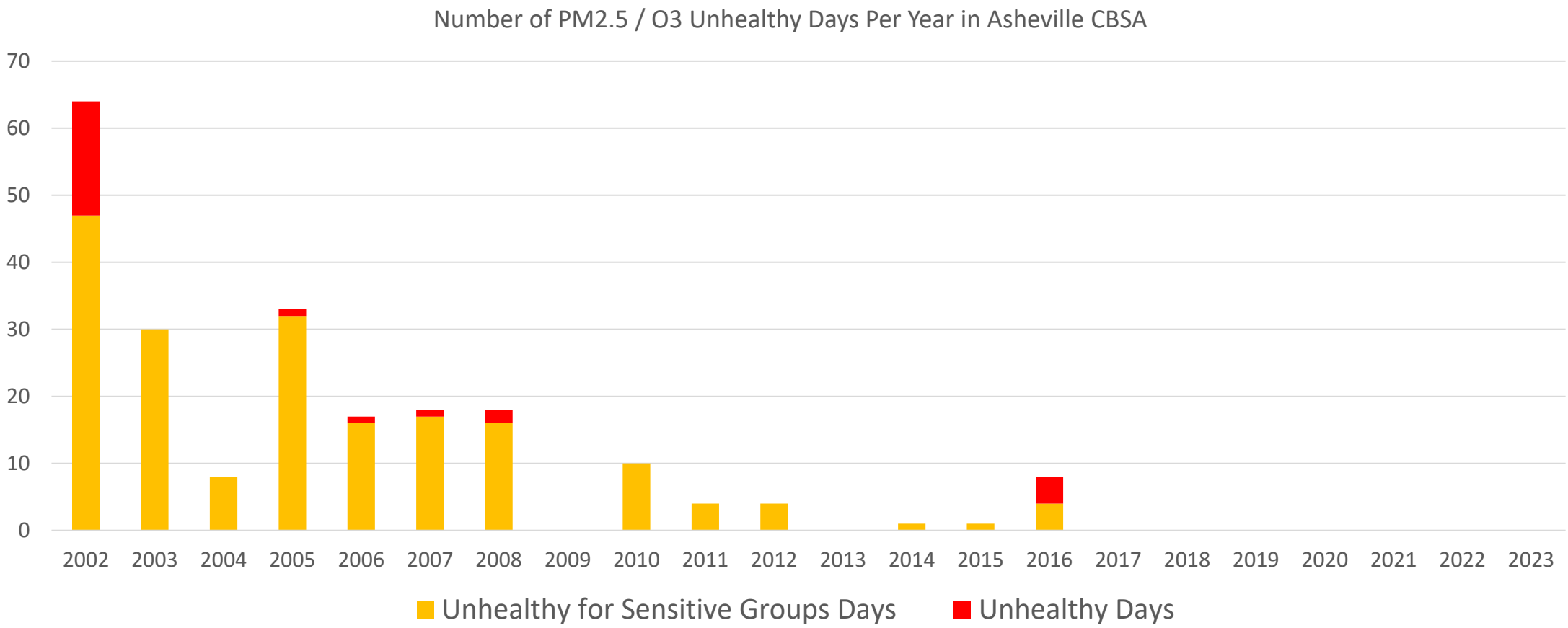
Asheville-Buncombe Air Quality Agency

PM2.5 Levels in Buncombe County



Asheville-Buncombe Air Quality Agency

Air Quality Unhealthy Days



Asheville-Buncombe Air Quality Agency

Asheville Board of Education PM Monitoring Site

Previous roof top site

New ground level site

Asheville-Buncombe Air Quality Agency

Official Site Mascot

Asheville-Buncombe Air Quality Agency Accounts	FY2023 Actuals	FY 2024 Budget	2025 Budget Draft
Revenue Accounts			
Investment Earnings	22,940	5,000	0
North Carolina Gas Tax	152,670	150,000	150,000
Permits and Fees			
Administration Fees 105	1,092	500	500
Title V Permit Fees	179,855	190,000	227,700
Asbestos Permits	140,147	125,000	125,000
Stage I Vapor Recovery	54,050	54,000	54,000
Investigative Cost Fees	465	0	500
City Permit Review Fee	18,648	18,000	16,000
County Permit Review Fee	8,650	10,000	9,000
AQ - Permit Fee	121,991	115,000	115,000
Permits and Fees	**524,898**	**512,500**	**547,700**
Restricted Intergovernmental			
EPA 105 Grant	214,517	223,000	280,000
EPA 103 Grant - PM	135,700	109,465	250,000
Restricted Intergovernmental	**350,217**	**332,465**	**530,000**
Total Revenue Accounts	**1,050,726**	**999,965**	**1,227,700**
Salaries And Benefits			
Salaries and Wages	530,229	571,445	660,918
Benefits	278,015	286,698	341,606
Total Salaries And Benefits	**808,244**	**858,143**	**1,002,524**
Operating Expenditures - Discretionary			
Utilities	1,997	0	0
Travel and Training	9,569	16,436	15,104
Vehicle Expense	1,474	1,050	1,500
Office Expenses	6,345	12,950	16,394
Maintenance and Repair	1,502	3,500	2,000
Equipment	85,496	44,413	56,000
Contract and Professional Services	395	5,099	15,865
Charges and Fees	2,649	3,000	3,000
Advertising	0	900	935
Information Technology	1,027	1,320	1,500
Total Operating Expenditures - Discretionary	**110,453**	**88,668**	**112,298**
Operating Expenditures - Non-Discretionary			
Non Discretionary Copier Rental	0	80	75
Non Discretionary Indirect Cost	95,458	128,696	128,696
Non Discretionary Insurance and Bonds	11,211	5,988	7,595
Non Discretionary Motor Fuel	4,054	3,600	3,600
Non Discretionary Other Post Employment Benefits	9,273	11,050	9,274
Non Discretionary Telephone	3,995	3,443	3,814
Non Discretionary Utilities	0	2,000	2,000
Total Operating Expenditures - Non-Discretionary	**123,991**	**154,857**	**155,054**
Capital Outlay	0	0	50,000
Contingency	0	15,000	15,000
Expense Subtotal	1,042,689	1,116,668	1,334,876
Net Impact to Fund Balance	-8,037	116,703	107,176

ASHEVILLE-BUNCOMBE AIR QUALITY AGENCY
FY 2025 BUDGET

BE IT ORDAINED by the Asheville-Buncombe Air Quality Agency that, pursuant to Section 159-13 of the General Statues of North Carolina, the FY 2025 Budget Ordinance of the Asheville-Buncombe Air Quality Agency is hereby set forth as follows:

Section 1. The following amounts are hereby appropriated for the operation of the Asheville-Buncombe Air Quality Agency for the fiscal year beginning July 1, 2024, and ending June 30, 2025, in accordance with the following schedules:

EXPENDITURES:

Salaries & Benefits/ Service & Supplies	$1,228,876
Special Projects	$ 56,000
Capital Outlay	$ 50,000
Expenditure Totals	**$1,334,876**

Section 2. It is estimated that the following revenues will be available for the fiscal year beginning July 1, 2024 and ending June 30, 2025:

REVENUES:

NC Gasoline Tax Allocation	$150,000
Permits & Inspection Fees	$320,000
Title V Fees	$227,700
Federal 105 Grant Funds	$280,000
Federal PM 2.5 Grant Funds	$250,000
Air Quality General Fund Balance Draw	$107,176
Revenue Total	**$ 1,334,876**

Section 3. This Budget Ordinance shall be entered in the minutes of the Asheville-Buncombe Air Quality Agency and within five (5) days after its adoption copies shall be filed with the Finance Officer and the Administrative Assistant to Asheville-Buncombe Air Quality Agency who, for the purposes of this ordinance, is designated as the Clerk to the Agency as described in G.S. 159-13.

Section 4. This ordinance shall become effective on July 1, 2024.

Adopted this _____ day of _____, 2024.

_____
Joel Storrow, Chairman

Attested By:

_____

March 5, 2024

Asheville-Buncombe
Air Quality Agency

March 5, 2024

MEMORANDUM

TO: Ashley Featherstone, Director
James Raiford, Permitting Program Manager

FROM: Betsy Brown, Air Quality Coordinator

SUBJECT: Permit Annual and Application Fees for Calendar Year 2024

Attached are the official tables for the new Asheville-Buncombe Air Quality permit annual and application fees for calendar year 2024. In 2023, pursuant to AB Air Quality Code 17.0204, the Asheville-Buncombe Air Quality Agency increased the Title V fees by the Consumer Price Index (5.43149%). This annual inflation adjustment will go into effect starting January 1, 2024 for the Title V permit application fees.

As a historical note, Title V Fees were adjusted September 27, 2021, per rulemaking and AB Air Quality Board approved changes to 17.0203. Title V tonnage fees are adjusted by the AB Air Quality Board as part of the annual budget process.

More information regarding the Consumer Price Index and the 40 CFR Part 70 presumptive minimum fee can be found here: https://www.epa.gov/title-v-operating-permits/permit-fees. It is recommended that the Title V tonnage fee also be increased to $62 per ton based on the EPA presumptive minimal fee of $61.73 as part of the BCFY 2025 budget.

Attachments: AB Air Quality 2024 Title V Fee CPI Increase

Title V Facilities Fees CPI Increase 2024

5.43% CPI Increase

Application Fees

	2023	2024
Initial Application or Major Modification or Renewal	$11,092	$11,694
Initial Application or Major Modification (PSD or NSR/NAA)	$16,637	$17,541
Initial Application or Major Modification (PSD and NSR/NAA)	$33,274	$35,081
Minor Modification	$3,327	$3,508
17.0300 Permit	$1,109	$1,169
General Title V Air Curtain Incinerator (new proposed fee)	10% of the Otherwise Applicable Fee	10% of the Otherwise Applicable Fee

Annual Source Fees

Title V (Base Fee + Title V Tonnage Fee)	$11,092	$11,694
Title V (Nonattainment Area Added Fee)	$4,437	$4,678
Title V (Added Medium Complex Facility Fee -3-5 Federal Programs)	$2,773	$2,924
Title V (Added Highly Complex Facility Fee -6 or more Federal Programs)	$8,319	$8,771
General Title V Air Curtain Incinerator (New Proposed Fee)	10% Of the Otherwise Applicable Fee	10% Of the Otherwise Applicable Fee
Title V Tonnage Fee *(no change to 100 ton minimum)	59	62
Synthetic Minor (no change)	$4,000 Base Fee + Synthetic Minor Tonnage Fee	$4,000 Base Fee + Synthetic Minor Tonnage Fee
Synthetic Minor Tonnage Fee (no change)	53	53

*The annual Title V tonnage fee is determined each year by the Board as part of the budget process and the annual Consumer Price Index annual increase for Title V facilities. We are proposing to increase the tonnage fee to $62 in Buncombe County FY25.

Projected Title V Permit Fees with Increased CPI and Tonnage Fee						
Facility	2023 Permit Fee	Current Tonnage Fee ($59)	Projected Tonnage Fee ($62)	2024 Projected Fee (Including CPI)	Tonnage Fee Increase	2023 - 2024 Difference in Permit Fee (CPI and Tonnage Fee Increase)
Amcor Flexibles LLC	$ 16,992	$ 5,900	$ 6,200	$ 17,894	$ 300	$ 902
BorgWarner Turbo Systems	$ 19,765	$ 5,900	$ 6,200	$ 20,806	$ 300	$ 1,041
MSD	$ 25,311	$ 5,900	$ 6,200	$ 26,629	$ 300	$ 1,318
Duke Energy Progress, LLC	$ 56,758	$ 37,347	$ 39,246	$ 59,675	$ 1,899	$ 2,917
Buncombe County Landfill II	$ 19,765	$ 5,900	$ 6,200	$ 20,806	$ 300	$ 1,041
Low & Bonar, Inc.	$ 16,992	$ 5,900	$ 6,200	$ 17,894	$ 300	$ 902
Flint Group	$ 29,736	$ 10,325	$ 10,850	$ 31,279	$ 525	$ 1,543
Totals:	$ 185,319	$ 77,172	$ 81,096	$ 194,983	$ 3,924	$ 9,664

EPA finalizes stronger standards for harmful soot pollution, significantly increasing health and clean air protections for families, workers, and communities

Stronger standard will yield up to $46B in net health benefits, save lives, and build healthier communities, while supporting economic growth across America

February 7, 2024

Contact Information
EPA Press Office (press@epa.gov)

WASHINGTON — The Biden-Harris Administration on Wednesday finalized a significantly stronger air quality standard that will better protect America's families, workers, and communities from the dangerous and costly health effects of fine particle pollution, also known as soot. By strengthening the annual health-based national ambient air quality standard for fine particulate matter ($PM_{2.5}$) from a level of 12 micrograms per cubic meter to 9 micrograms per cubic meter, the U.S. Environmental Protection Agency's updated standard will save lives — preventing up to 4,500 premature deaths and 290,000 lost workdays, yielding up to $46 billion in net health benefits in 2032. For every $1 spent from this action, there could be as much as $77 in human health benefits in 2032.

Today's action is based on the best available science, as required by the Clean Air Act, and sets an air quality level that EPA will help states and Tribal Nations achieve over the coming years — including through complementary EPA standards to reduce pollution from power plants, vehicles, and industrial facilities, paired with historic investments under President Biden's Inflation Reduction Act and the Bipartisan Infrastructure Law. These actions bolster the U.S. economy by deploying billions of dollars and creating good-paying jobs across the transition to cleaner technologies. This strategy will make Americans healthier and more productive, while underpinning a manufacturing resurgence in America. Since 2000, $PM_{2.5}$ concentrations in the outdoor air have decreased by 42% while the U.S. Gross Domestic Product increased by 52% during that time.

"This final air quality standard will save lives and make all people healthier, especially within America's most vulnerable and overburdened communities," **said EPA Administrator Michael S. Regan**. "Cleaner air means that our children have

brighter futures, and people can live more productive and active lives, improving our ability to grow and develop as a nation. EPA looks forward to continuing our decades of success in working with states, counties, Tribes, and industry to ensure this critical health standard is implemented effectively to improve the long-term health and productivity of our nation."

Along with strengthening the primary annual $PM_{2.5}$ standard, EPA is modifying the $PM_{2.5}$ monitoring network design criteria to include a factor that accounts for proximity of populations at increased risk of $PM_{2.5}$-related health effects to sources of air pollution. This will advance environmental justice by ensuring localized data collection in overburdened areas to inform future NAAQS reviews.

Particle pollution is of great concern to those with heart or lung disease and other vulnerable communities, including children, older adults, and people with health conditions like asthma, as well as already overburdened communities, including many communities of color and low-income communities throughout the United States. Strengthening the Clean Air Act standard for fine particle pollution improves air quality nationally for everyone, ensuring that communities that are overburdened by pollution are not left behind.

"The Biden administration is taking life-saving action to protect people and rein in deadly pollution," **said Abigail Dillen, President of Earthjustice**. "The science is crystal clear. Soot, otherwise known as fine particle pollution, is a killer. It is driving heart disease, our asthma epidemic, and other serious illnesses. The people who suffer most are children and older Americans who live in communities of color and low-income communities. This federal standard will ensure that states respond to the ongoing public health and environmental justice crisis, saving thousands of lives and avoiding 800,000 asthma symptom cases every year."

"Administrator Regan and President Biden deserve thanks for taking this vital step to curb soot pollution - a dangerous and even deadly pollutant that has taken an oversized toll on underrepresented and overburdened communities less equipped to deal with its severe health impacts," **said Dr. Doris Browne, 118th President of the National Medical Association**. "This new standard of 9 micrograms per cubic meter will save lives based on scientific evidence. That is the bottom line. And as a physician, an advocate for clean air, and the past president of the National Medical Association representing physicians, our ultimate goal is health equity."

"President Biden and EPA Administrator Regan's new soot pollution limits will save thousands of lives and slash air pollution for people across the country, especially those disproportionately impacted by deadly particle pollution," **said Margie Alt, Director of the Climate Action Campaign**. "This standard makes meaningful progress toward protecting our health and addressing the administration's environmental justice commitments."

“Particle pollution is a killer. In the United States alone, it cuts thousands of lives short, taking a staggering toll. Children’s bodies are uniquely vulnerable to the harms of soot pollution,” **said Dominique Browning, Director and Co-Founder of Moms Clean Air Force**.[1] “Moms Clean Air Force commends EPA for taking a significant step forward in strengthening the annual standard for particle pollution, also known as soot, to 9 micrograms per cubic meter from its current level at 12. EPA’s new national health standard for particle pollution is the first improvement in over a decade. Soot is associated with increased infant mortality, hospital admissions for heart and lung diseases, cancer, and increased asthma severity. EPA’s finalized protection is an important step towards cleaner, healthier air for all children.”

“I applaud U.S. EPA Administrator Michael Regan for today's action to reduce fine particle pollution and protect communities. These standards will build upon the significant progress already made in improving air quality throughout New York and help prevent the many serious health effects plaguing our most at-risk populations,” said **New York State Department of Environmental Conservation Commissioner Basil Seggos. “**Last year, historic smoke plumes from wildfires across Canada increased New Yorkers’ awareness of how fine particulate pollution from natural and man-made sources affects the air we breathe, particularly for the most vulnerable among us.”[2]

In June 2021, EPA announced it would reconsider the December 2020 decision to retain the 2012 standards because the available scientific evidence and technical information indicated that the standards may not be adequate to protect public health and welfare. EPA considered the available science and technical information, as well as the recommendations of the independent advisors comprising the Clean Air Scientific Advisory Committee and CASAC PM expert panel when making the decision on whether to strengthen the PM standards.

Based on the scientific evidence, technical information, recommendations from CASAC, and public comments on the 2023 proposed standards, EPA has set two primary standards for $PM_{2.5}$, which work together to protect public health: the annual standard, which EPA has revised, and a 24-hour standard, which the agency retained. EPA also retained the current primary 24-hour standard for PM_{10}, which provides protection against coarse particles. EPA is also not changing the secondary (welfare-based) standards for fine particles and coarse particles at this time.

A broad and growing body of science links particle pollution to a range of serious and sometimes deadly illnesses. Many studies show that these microscopic fine particles can penetrate deep into the lungs and that long- and short-term exposure can lead to asthma attacks, missed days of school or work, heart attacks, expensive emergency room visits and premature death.

Due to the efforts that states, Tribes, industry, communities, and EPA have already taken to reduce dangerous pollution in communities across the country, 99% of U.S. counties are projected to meet the more protective standard in 2032, likely the earliest year that states would need to meet the revised standard. That's even before accounting for additional actions on the horizon to implement the Bipartisan Infrastructure Law and Inflation Reduction Act investments and to update source-specific emission standards.

Most Counties with Monitors Already Meet the Strengthened Particle Pollution Standard
(Based on 2020-2022 Air Monitoring Data)

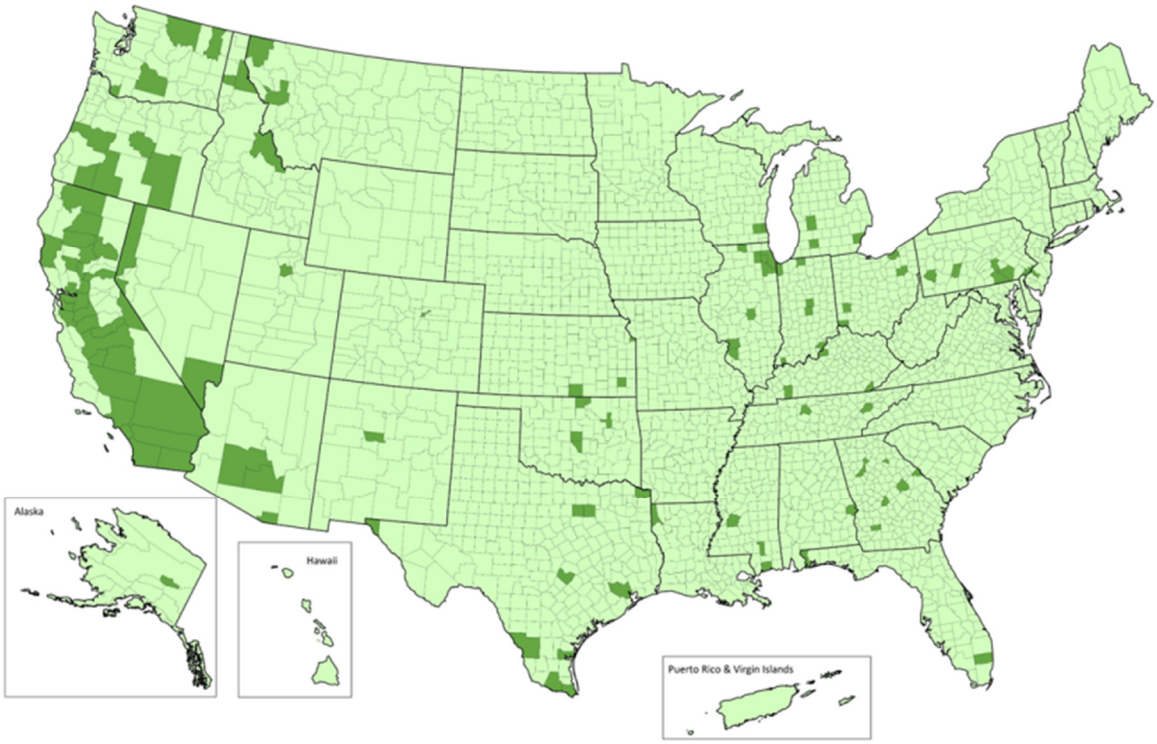


Figure 1: Based on 2020-2022 air monitoring data, the dark green areas on the map indicate counties that do not meet the annual PM2.5 standard of 9 ug/m3. View the data (pdf). (courtesy U.S. EPA)

Note: The map above reflects monitored counties with complete monitoring data. Future final designations of attainment/nonattainment will not be based on these data, but likely on monitoring data collected between 2022 and 2024. Of the 119 counties with 2020-2022 design values above 9 ug/m3, 59 counties are totally or partially contained in nonattainment areas for current PM2.5 standards. In years 2021 and 2022, EPA is aware that some states have already identified possible exceptional events that may have impacted air quality in the U.S. and may be relevant to designations decisions. (This information is provided for illustrative purposes only and is not intended to predict the outcome of any forthcoming designations process.)

See projected progress in 2032.

EPA is also revising the Air Quality Index to improve public communications about the health risks from $PM_{2.5}$ exposures.

Some PM is emitted directly from combustion sources, construction sites, industrial processes, and older diesel engines, while other particles are formed in the atmosphere in complex chemical reactions with other pollutants such as sulfur dioxide and nitrogen oxides that are emitted from power plants, gasoline and diesel engines, and certain industrial processes. Particle pollution from industrial processes and other sources is controllable, with readily available and cost-effective technologies to manage emissions, and EPA will build on decades of experience in providing flexible options to states and Tribes across the implementation process.

EPA carefully considered extensive public input as it determined the final standards. The agency held a virtual public hearing and received about 700,000 written comments before finalizing today's updated air quality standards.

See more information on today's final standards at Final Reconsideration of the National Ambient Air Quality Standards for Particulate Matter.

[1]An earlier version of this release misspelled Moms Clean Air Force. It is "Moms Clean Air Force" not "Mom's Clean Air Force."

[2]This release was updated to include a quote from New York State Department of Environmental Conservation Commissioner Basil Seggos.

Asheville-Buncombe Air Quality Agency
APPLICATION REVIEW SUMMARY

SECTION A: FACILITY INFORMATION			
Company Name:	Milkco, Inc.		
Site Name:	Milkco, Inc.		
Mailing Address:	220 Deaverview Road, Asheville, NC 28806		
Site Address:	220 Deaverview Road, Asheville, NC 28806		
General Description of Business:	Dairy Products Processing Plant		
Facility Classification:	Synthetic Minor	**Site Status:**	Existing

SECTION B: APPLICATION INFORMATION			
Date of Application:	January 10, 2024	**Application Tracking No.:**	NA
Date Complete Application Received:	January 22, 2024	**Board Meeting Date:**	March 14, 2024
Confidentiality Requested?	No	**Board Agenda Type:**	Modification
Application Results:	The purpose of this review is to lend approval for AB Air Quality to modify the permit and to reclassify the facility as a small source.		
Permit No. Issued by Application:	11-587-23A / March 14, 2024		
Permit No. Voided by Application:	11-587-23 / January 12, 2023		

SECTION C: REGULATORY INFORMATION	
AB Air Quality Regulations:	4.0503, 4.0516, 4.0521, 4.0524, 4.1111, 4.1806, 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)	
		Prior Without Limit	Current Without Limit
CO	2.36	70.96	17.81
NO_X	2.91	280.01	48.07
PM	0.22	11.20	4.44
PM_{10}	0.22	10.03	3.26
$PM_{2.5}$	0.21	9.14	2.38
SO_2	0.02	83.76	83.65
VOC	0.16	7.98	1.77
Greenhouse Gases, $CO2_e$	3,289	39,052	28,022
All Hazardous Air Pollutants (HAPs)	0.05	0.60	0.49
List all HAPs >10TPY of potential emissions	None		

*Emission numbers denoted with an (*) reflect "controlled" emissions (i.e. emissions reduced by a pollution control device).

RECOMMENDATION FOR APPROVAL

Prepared By:	James C. Raiford /	**Date Completed:**	2/27/24
Reviewed By:	Betsy Brown / Betsy Brown	**Date Reviewed:**	3/1/2024
Director:	Ashley J. Featherstone /	**Date Reviewed:**	3/5/2024

SECTION A DETAILS

FACILITY INFORMATION

[Detailed discussion of any items in Section A]

Milkco is a wholly-owned subsidiary of Ingles Markets, Inc., which purchased the facility from Sealtest in 1982. Milkco is a milk processing and packaging plant providing most of the fluid milk needs of the Ingles stores, as well as providing dairy, citrus, tea, orange juice, ice cream mix, and bottled water to food service distributors, grocery warehouses, and independent specialty retailers in over 10 states.

Process steam is supplied by three 12.55 million BTU per hour natural gas / No. 2 fuel oil-fired boilers. There is a 1,600-kilowatt (kW) / 2,340 horsepower (hp) diesel-fired generator that provides electricity for the facility during power outages through an arrangement with Duke Energy Progress. The generator also provides power when the utility curtails electricity to the facility (i.e., peak shaving). A second diesel-fired generator was added in 2012. This 2,000 kW / 2,937 hp generator is for emergency use only (and not for peak shaving). The boilers and generators are the only permitted sources at this facility. Ultra-low sulfur diesel (ULSD) fuel is used in both the generators and in the boilers when burning fuel oil. The pollutants of concern are the result of fuel combustion, and include carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter (PM, PM_{10}), sulfur dioxide (SO_2), volatile organic compounds (VOCs), and various hazardous air pollutants (HAPs).

For this permit renewal, the facility requested that the G-1 generator be reclassified as an emergency use generator since they have severed their financial agreement with Duke Energy to operate in times of curtailment. Because the engine will now be considered an emergency generator, the hours of operation used to determine their emissions calculations were changed from 8,760 hours to 500 hours. With the reduction of the calculated emissions, this also means that the facility is now below Title V thresholds for NOx without needing to have a limit placed in their permit. This changes the classification of the facility from Synthetic Minor to Small, and the fuel oil limit will be removed. Emissions are not expected to change with this modification, since the generator never operated more than 100 hours a year and the boilers will continue to use natural gas unless there is an emergency that requires the use of fuel oil.

Specific changes to this permit modification include:

- Updating Permit Condition 8 to remove the previous requirements and add new maintenance practices for G-1. Appendix C was removed because it listed the previous requirements for G-1.
- Removing previous Permit Conditions 11 and 12 which contained Synthetic Minor and PSD Limitations
- Updating Permit Condition 10 and Appendix B to reflect that G-1 is limited to 500 hours of operation
- Updating Condition 11 (previously 14) to remove notification and reporting requirements that no longer apply to G-1.

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 1. Type, manufacturer, capacity 2. Control device with ID (if any)	Pollutant(s) Emitted	Miscellaneous Notes
ES-1	One (1) 12.55 million BTU per hour natural gas / No. 2 fuel oil-fired boiler	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs, CO_{2e}	Boiler 1: Superior Boiler Works Model No. E4-5-1500-S150-GP-GP2, Boiler NB No. 15883
ES-2	One (1) 12.55 million BTU per hour natural gas / No. 2 fuel oil-fired boiler	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs, CO_{2e}	Boiler 2: Superior Boiler Works Model No. E4-5-1500-S150-GP-GP2, Boiler NB No. 15882
ES-3	One (1) 12.55 million BTU per hour natural gas / No. 2 fuel oil-fired boiler	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs, CO_{2e}	Boiler 3: Superior Boiler Works Model No. E4-5-1500-S150-GP-GP2, Boiler NB No. 15881
G-1	One (1) 1,600 kilowatt ULSD-fired generator	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs, CO_{2e}	Spectrum / Detroit Diesel Model No. 1600DS60, 2,340 horsepower
G-2	One (1) 2,000 kilowatt ULSD-fired emergency use generator	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAP, CO_{2e}	Caterpillar Model No. 3516D, 2,937 horsepower
NA	One (1) 10,000-gallon aboveground No. 2 fuel oil / diesel storage tank	NA	This is the fuel tank for the boilers and generator G-1. This tank is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(D)(i).
NA	One (1) 2,500-gallon aboveground diesel storage tank	NA	This is the sub-base fuel tank for generator G-2. This tank is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(D)(i).
NA	One (1) ammonia refrigeration unit	NA	This equipment is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(viii).
NA	Eight (8) bottle coding lines	NA	These pieces of equipment are exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(2)(E)(i).
NA	Seven (7) box gluing lines	NA	These pieces of equipment are exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(x).
NA	One (1) label gluing line	NA	Referred to as the No. 8 PET Line, this equipment is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(x).
NA	One (1) sandblasting machine	NA	This machine is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).

APPLICATION NOTES

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 (Compliance demonstration, applicability, etc.)
17.0500 – Title V Procedures and 17.0315 – Synthetic Minor Facilities	Entire facility	With the reclassification of G-1 to be an emergency engine, emissions calculations were updated from 8760 hours to 500 hours. This means that the facility is not subject to Title V permitting procedures because potential emission are now less than 100 tons per year for NO_X. The facility previously elected to take avoidance limitations to keep their potential emissions under 100 tons. 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. Previous permit conditions 11 and 12 were removed to reflect this change.
17.0700 – Toxic Air Pollutant Procedures	NA	The addition of emergency generator G-2 (via Permit No. 11-587-10A) triggered a toxics review under the toxic air pollutant (TAP) procedures. The non-emergency use of generator G-1 (via Permit No. 11-587-10B) resulted in a reevaluation of the toxics review (see notes below).
4.0524 – New Source Performance Standards (40 CFR Part 60, Subpart Dc)	ES-1, ES-2, ES-3	The facility's boilers are 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_2 requirements of this regulation, the facility monitors the sulfur content of the No. 2 fuel oil (actually ULSD) combusted in the boilers to ensure that it does not exceed 0.5% by weight. The facility reports the results of the monitoring to this Agency on a semi-annual basis.
4.0524 – New Source Performance Standards (40 CFR Part 60, Subpart IIII)	G-2	The emergency use generator is 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 generator meets Tier 2 emission limits and requires the use of ULSD fuel. The generator must be equipped with a non-resettable hour meter prior to startup, and non-emergency use (e.g., testing) is limited to 100 hours per year (unless prior arrangements are made).

4.0530 – Prevention of Significant Deterioration	NA	In the previous permit, the non-emergency use of generator G-1 resulted in the facility having potential NO_X emissions above the PSD major source applicability threshold and an avoidance limit was included in the permit. Since potential emissions are now below PSD thresholds, this permit condition has been removed.
4.1111 – MACT (40 CFR 63, Subpart JJJJJJ)	NA	The boilers are not subject to 40 CFR Part 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers. The rule applies to solid- and liquid-fired boilers, but boilers that are also gas-fired and burn liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing not to exceed 48 hours during any calendar year are not subject to this subpart. Milkco has submitted an Initial Notification form indicating that its boilers will burn fuel oil only during such periods, so the boilers are not subject to this subpart. However, relevant requirements of this subpart are included in a permit condition in case the facility decides to operate the boilers on fuel oil in the future.
4.1111 – MACT (40 CFR 63, Subpart ZZZZ)	G-1, G-2	Both generators are subject to 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. For G-2, compliance with Subpart ZZZZ is achieved by compliance with NESHAPS Subpart IIII. For G-1, the reclassification of the engine as an emergency generator means that the installation of an oxidation catalyst and a continuous parameter monitoring system (CPMS) is no longer required. Permit Condition 8 was update to reflect the new required management practices including changing the oil and filter, and inspecting the air cleaner and hoses, as well as required recordkeeping. Appendix C which listed previous requirements has been removed.
4.0503 – Particulates from Fuel Burning Indirect Heat Exchangers	ES-1, ES-2, ES-3	This regulation limits PM emissions from each boiler to 0.42 pounds per million BTU heat input. AP-42 PM emission factor for these boilers is only 0.021 lb/MMBtu when burning No. 2 fuel oil, and even less when burning natural gas (see notes below). Thus, the facility is in compliance.

4.0516 – Sulfur Dioxide Emissions from Combustion Sources	ES-1, ES-2, ES-3, G-1, G-2	This regulation limits SO_2 emissions from these sources to 2.3 lb/MMBtu. The AP-42 SO_2 emission factor for natural gas combustion for each boiler (ES-1, ES-2, and ES-3) is 0.00058 lb/MMBtu. The boilers are subject to the SO_2 emission limit of NSPS Subpart Dc when burning No. 2 fuel oil. The AP-42 SO_2 emission factor for each generator (G-1 and G-2) using ULSD is 0.0015 lb/MMBtu (see notes below). Thus, the facility is in compliance.
4.0521 – Control of Visible Emissions	ES-1, ES-2, ES-3, G-1, G-2	This regulation limits visible emissions from each boiler to no more than 20% opacity due to their post-1971 manufacture date. Compliance with this regulation will be determined through facility self-monitoring and Agency inspections (see notes below).
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 – Synthetic Minor Facilities. In the previous permit, the use of generator G-1 as a non-emergency engine resulted in potential NO_X emissions exceeding the Title V permitting threshold. Since the engine will now be classified as an emergency engine, potential NOx emissions no longer exceed Title V permitting thresholds. The facility had previously accepted a limit of 1,000,000 gal of No. 2 fuel oil per year for the boilers and a limit of 2,500 operating hours per year for G-1. These limits will be removed from the permit. Emergency engine rules prohibit the operation of G-1 to no more than 100 hours of non-emergency use. Additionally, the boilers use natural gas and only burn fuel oil in times of natural gas curtailment. Previous permit conditions 11 and 12 were removed from the permit to reflect these changes.

4.0503 – Particulates from Fuel Burning Indirect Heat Exchangers. The allowable emission limit for each boiler was calculated according to the following equation:

Allowable PM Emission Limit = $(1.090) \times (37.65)^{-0.2594}$ = 0.42 lb/MMBtu heat input,

where 37.65 is the total maximum heat input capacity of all three boilers (3 x 12.55 MMBtu/hr).

4.0516 – Sulfur Dioxide Emissions from Combustion Sources. This regulation states that if an emission source is subject to AB Air Quality Code 4.0524 – New Source Performance Standards or to AB Air Quality Code 4.1111 – Maximum Achievable Control Technology, then it shall meet the standard in that particular rule instead of the standard in 4.0516(a). The boilers are subject to NSPS Subpart Dc, which does have an SO_2 emissions limit for boilers combusting oil, but does not have an SO_2 emissions limit for boiler combusting natural gas. The emergency generator (G-2) is subject to NSPS Subpart IIII and both emergency generators are subject to MACT Subpart ZZZZ. Neither of these regulations has an SO_2 emissions standard.

4.0521 – Control of Visible Emissions. This regulation states that if an emission source is subject to AB Air Quality Code 4.0524 – New Source Performance Standards or to AB Air Quality Code 4.1111 – Maximum Achievable Control Technology, then it shall meet the standard in that particular rule instead of the standard in 4.0521(c) or 4.0521(d). The boilers are subject to NSPS Subpart Dc, which does not have a visible emission (opacity) standard for boilers with a heat input capacity under 30 MMBtu/hr. The emergency generator (G-2) is subject to NSPS Subpart IIII, and both generators are subject to MACT Subpart ZZZZ. Neither of these regulations has a visible emissions standard.

17.0700 – Toxic Air Pollutant Procedures. A toxics review was performed in July of 2014 to account for the non-emergency use of generator G-1, which is subject to GACT requirements. The agency chose to

conduct the review in order to ensure that the modification would not result in an unacceptable risk to human health or a potential exceedance of the AALs. Sources included the two generators, but the three boilers were determined to be exempt from toxics per 17.0702(a)(18). With the 2,500 hour per year operating limit for G-1 (and 500 hours per year assumed for G-2), potential emissions of arsenic and benzene were over the TPERs. A dispersion modeling analysis using the AERSCREEN showed predicted arsenic and benzene concentrations were below the AALs. The results are summarized in Appendix B of the permit. With the reclassification of G-1 as an emergency engine, the 2,500 hour per year operating limit has been removed, and 500 hours would be the assumed worst case for operating this engine. Since this is lower than the previous limit, no changes to the toxics review are required. Permit Condition 10 and Appendix B of the permit were updated to reflect that G-1 will operate no more than 500 hours.

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

EMISSION NOTES

AB Air Quality calculated potential boiler and generator emissions based on AP-42, and manufacturer specific emissions factors for G-2. VOC emissions from coding ink printing and box and label gluing are based on usage data previously provided by Milkco for the last permit renewal. Emissions for these sources are well below permitting thresholds. Potential emissions from the three boilers were determined for operation on both No. 2 fuel oil (0.5% sulfur) and natural gas, with the higher emissions of each pollutant (between oil and gas) being selected for the facility-wide totals. Potential SO_2 emissions from the two generators were based on ULSD (0.0015% sulfur), as this fuel is required for both generators. The boilers actually use ULSD also, as a single 10,000-gallon fuel tank supplies the boilers and the older generator (G-1). Emissions calculations for G-1 were updated in this review from the previous limit of 2500 hours to 500 hours since it has been reclassified as an emergency generator. Emissions in the table listed in Section D on page 1 show the previous uncontrolled potential emissions as well as the new uncontrolled potential emissions.

SECTION E

SUPPORTING DOCUMENTATION

(Provide brief description of any attachments)

1. Permit modification application
2. Emission calculations performed by AB Air Quality
3. Draft permit
4. Draft permit cover letter
5. Draft invoice

Asheville-Buncombe Air Quality Agency
APPLICATION REVIEW SUMMARY

SECTION A: FACILITY INFORMATION			
Company Name:	RTX Corporation, Pratt and Whitney Division		
Site Name:	Asheville Plant		
Mailing Address:	330 Pratt and Whitney Blvd., Asheville NC 28806		
Site Address:	330 Pratt and Whitney Blvd., Asheville NC 28806		
General Description of Business:	Airplane Parts Manufacturer		
Facility Classification:	Small	**Site Status:**	Existing

SECTION B: APPLICATION INFORMATION			
Date of Application:	December 14, 2023	**Application Tracking No.:**	NA
Date Complete Application Received:	January 2, 2024	**Board Meeting Date:**	March 14, 2024
Confidentiality Requested?	NA	**Board Agenda Type:**	Modification
Application Results:	The purpose of this review is to lend approval to RTX Corporation, Pratt and Whitney Division to modify their permit.		
Permit No. Issued by Application:	11-920-21B / March 14, 2024		
Permit No. Voided by Application:	11-920-21A / January 25, 2024		

SECTION C: REGULATORY INFORMATION	
AB Air Quality Regulations:	4.0515, 4.0516, 4.0521, 4.0524, 4.1104, 4.1111, 4.1806, 17.0704

SECTION D: FACILITY-WIDE EMISSIONS INFORMATION

Pollutants Reviewed as a Result of this Application or AB Air Quality Action:	Projected Actual Emissions (TONS/YR)	Prior Potential Emissions (TONS/YR)	Current Potential Emissions (TONS/YR)
CO	3.9	20.2	15.0
NO_X	3.0	12.4	9.8
PM	0.8	1.7	1.9
PM_{10}	0.8	1.7	1.9
$PM_{2.5}$	1.1	1.7	1.9
SO_2	0.002	0.01	0.01
VOC	22.4	46.3	45.0
Greenhouse Gases, CO_{2e}	2,323.1	6196.2	5337.9
Total HAPs	0.9	3.2	2.3
List all HAPs >10 TPY	None.		

***Emission numbers denoted with an (*) 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 Completed:**	3/4/24
Reviewed By:	Betsy Brown / Betsy Brown	**Date Reviewed:**	3/5/24
Director:	Ashley J. Featherstone /	**Date Reviewed:**	3/5/2024

SECTION A DETAILS

FACILITY INFORMATION

[Detailed discussion of any items in Section A]

RTX Corporation, Pratt and Whitney Division (Pratt and Whitney) is a manufacturer of aircraft engines and is headquartered in East Hartford, CT. Pratt and Whitney is proposing to construct and operate a new turbine airfoil production facility in Asheville, North Carolina in Buncombe County.

The purpose of this modification is to update various processes that were changed from what was submitted in the application during the construction of the facility. When the original application was submitted, they were based on pre-construction designs, and as such, some sources have changed during the construction process. The changes that will be made to the permit for this modification are as follows:

- Grain Etch Lines – The tanks sizes for the grain etch lines have increased, but in addition a wet scrubber was installed. With the wet scrubber, emissions of Hydrogen Chloride and Nitric Acid will decrease.
- VDP1 – VDP23 – Particulate emissions from the vapor deposition process are vented indoors and therefore are exempt from permitting. These sources will be removed from the permit.
- VSP1 – VSP6 – Particulate emissions from the VPS coating process are vented indoors. Since the sources are subject to 40 CFR Part 63 Subpart WWWWWW, the sources will remain in the permit.
- EGEN1 – EGEN8 – The original permit application included three 2,100 hp, two 670 hp, and one 120 hp natural gas fired emergency generators. This modification will reflect that four 1,118 hp and four 229 hp engines were installed at the facility. Emissions from the new generators will be lower than the previous permit application.
- EBPVD1 – EBPVD5 – There was a change to the expected design of the EPVD coaters that will no longer include a HEPA filter. Potential particulate matter emissions will increase from 0.15 to 0.52 tons per year.
- One 120 hp natural gas-fired emergency fire water pump was not installed and is being removed from the insignificant activity list.
- Condition 5, requested by Pratt and Whitney in the original application, had a reference updated, and Condition 6 was updated to include the Emergency Generators since they have always been subject to AB Air Quality Code 4.0516 but were not included in the previous permit.

Below is a description of the facility with the newly updated information from this permit application:

The facility will manufacture metal parts, which include casting operations, where the body of the parts are made through metal casting, and then go through grinding, coating and quality inspections before being shipped to customers.

Part casting uses a method of casting known as lost wax investment casting, which forms the general part that will be ready for final finishing. Wax is first injected into a die, and once cooled, the wax patterns removed. The wax pattern is dipped into a ceramic slurry to build a shell around the wax. Once the shell dries, the part is moved to an electric steam autoclave to melt out the wax. The autoclave chamber is depressurized and the steam vents outdoors. A small percentage of wax is volatilized as VOC emissions. The hollow shells are then moved to a natural gas furnace to remove any remaining wax residue. The furnace exhaust is processed through an afterburner which combusts VOC from the wax then vents to atmosphere. Emissions from the furnace will include nitrogen oxides (NOx), carbon monoxide (CO) and particulates from the combustion of natural gas.

The hollow ceramic shells then move to casting, where in an electric metal induction vacuum furnace, ingots are melted down and poured into the ceramic shell's cavity while a vacuum pump runs to remove the air. The vacuum pump for the furnaces vents outdoors. The furnaces are expected to emit minimal PM emissions after passing through an in-line particulate filter. Also, expected is a minimal amount of NOx and VOC that are thermally generated within the furnace chamber.

The parts are then heat treated in an electric vacuum furnace, after which they are cooled before the ceramic shell is removed from the metal. The vacuum pump for the furnace vents outdoors. PM emissions from the shell removal process are captured in a hood controlled by filters that do not vent outdoors. The parts go to the Post-cast area where parts are machined and finished. Shell removal and machining activities in the Post-cast area are vented to dust collectors to control PM emissions. These dust collectors will vent indoors. The part then enters a vacuum sealed liquid caustic autoclave where the internal ceramic structure is removed. The parts are then inspected for quality using a series of tests including grain etching and a Florescent Penetrant Inspection (FPI) process. The ventilation hood over the grain etch lines will vent to the outside and be controlled by a wet scrubber.

After the parts exit the casting process, the parts are baked in an electric oven to remove any de minimis oils including oils from fingerprints. The parts then move to ceramic and/or metal solids coating processes that are connected to an in-line particulate air filter. The metallic thermal spray operations occur under vacuum and will vent outdoors. The atmospheric ceramic and/or metal spray applications are collected in a dust collector and vented indoors. The parts are heat treated in an electric oven to seal the coating. These electric ovens have a vacuum pump that vent outdoors.

The parts are then sent to enclosed oil-filled grinding machines where they are ground to their final shape. The grinding machines utilize a mist collector that will vent indoors.

The next step includes drilling holes into the parts with a laser. Prior to drilling, some parts are filled with wax. The laser drilling machines are enclosed and vent to a dust collector that vents indoors. Once the drilling is complete a natural gas fired furnace burns off the wax. The parts then move to a metal solids coating process that occurs in a vacuum chamber connected to a dust collector that will vent outdoors. The parts are then cleaned and inspected and prepared for shipment.

To support the proposed operations, eight natural gas fired emergency engines will be installed should the facility lose power. There will be four 2,100-brake horsepower engines, and four 229-brake horsepower engines. Each of these engines will meet the appropriate NSPS and NESHAP emission standards, respectively. The engines are only expected to run in non-emergency mode during testing and maintenance of the engines.

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 1. Type, manufacturer, capacity 2. Control device with ID (if any)	Pollutant(s) Emitted	Miscellaneous Notes
WIP	One (1) Wax Injection Process (WIP) consisting of Ten (10) Wax Injection Machines (WAX1 – WAX10)	VOCs	
SBP	One (1) Shell Build Process (SBP) consisting of two (2) Wax Mold Etch Baths (WAXETCH1 and WAXETCH2), two (2) Steam Dewax Autoclaves (WAXMELT1 and WAXMELT2) and seven (7) Natural Gas Fired Shell Kilns (SHELL1 – SHELL7) controlled by natural gas-fired after burners total heat input rated at 1.1 MMBtu/hr each (C-1 through C-7).	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs/TAPs, GHGs	
PCP	One (1) Part Casting Process (PCP) consisting of ten (10) Electric Vacuum Furnaces (FURNACE1 – FURNACE10)	NO_X, PM, PM_{10}, $PM_{2.5}$, VOCs, HAPs/TAPs	
POCP	One (1) Post Casting Process (POCP) consisting of two (2) Grain Etching Lines (GRAINETCH1 and GRAINETCH2), one FPI Spray Application Line (FPI1), and three (3) Post Cast Electric Vacuum Furnaces (VACFURN1 – VACFURN3)	VOCs	
CP	One (1) Coating Process (CP) consisting of thirteen (13) Electric Ovens (OVEN1-OVEN13), six (6) Thermal Spray Processes under vacuum (VPS1 – VPS6) controlled by in-line particulate filters (C-8 through C-13), five (5) APPS Ceramic Coating Process (APPS1 – APPS5) controlled by dust collectors (C-37 through C-41), and one (1) Aluminide Coating Process (ALUM1)	PM, PM_{10}, $PM_{2.5}$, VOCs, HAPs/TAPs	VPD1 – VPD23 which were listed in the previous permit were removed since they are vented indoors. VSP1 – VSP6 are also vented indoors, but remain on the permit since they are subject to 40 CFR Part 63, Subpart WWWWWW.
MP	One (1) Machining Process (MP) consisting of one FPI Spray Application Line (FPI2), one (1) Wax Injection Machine (WAX11), two (2) Natural Gas Fired Wax Burnout Furnaces (WAXFURN1 and WAXFURN2) controlled by natural gas-fired after burners total heat input rated at 0.5 MMBtu/hr each (C-42 through C-43)	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs/TAPs, GHGs	Page 23 of 120 lists total heat input for WAXFURN1 and WAXFURN2 as 0.46 MMBtu/hour each.

EBPVD	One (1) Electron-beam Physical Vapor Deposition Process (EBPVD) consisting of thirteen (13) Electric Ovens (OVEN14-OVEN26) and five (5) Thermal Spray Processes under vacuum (EBPVD 1 – EBPVD5)	PM, PM_{10}, $PM_{2.5}$, VOCs	The HEPA filters previously associated with EBPVD1 – EBPVD5 were removed with this modification.
EGEN1, EGEN2, EGEN3, EGEN4	Four (4) 1,118 hp natural gas-fired emergency generators	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs/TAPs, GHGs	The engines listed have been updated with this modification.
EGEN5, EGEN6, EGEN7, EGEN8	Four (4) 229 hp natural gas-fired emergency generators	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs/TAPs, GHGs	The engine currently is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(2)(B)(v)(I).
FWP	One (1) 120 hp natural gas-fired emergency fire water pump	CO, NO_X, PM, PM_{10}, $PM_{2.5}$, SO_2, VOCs, HAPs/TAPs, GHGs	The engine currently is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(2)(B)(v)(I). The engine was not installed and is being removed from the insignificant activity list.
NA	A grit blast and laser parts cleaning process with emissions captured by dust collector and vented indoors.	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).
NA	A shot and dot peen process with emissions captured by dust collector and vented indoors	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).
NA	Machining, grinding, and EDM of metal parts using lubricating oil process with emissions captured by mist eliminators and a HEPA filter and vented indoors	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).
NA	A laser machining process with emissions captured by dust collector and vented indoors	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).
NA	One (1) electric brazing oven	NA	This oven is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(x).
NA	One (1) electric oven for heat treatment of casted parts	NA	This oven is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(x).
NA	A shell building process with emissions captured by dust collector vented indoors	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).
NA	A shell removal process with emissions captured by dust collector vented indoors	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).
NA	A grinding, cutting and polishing process with emissions captured by dust collector vented indoors	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(ix).

NA	A ceramic core removal process	NA	This process is exempt from permitting requirements per the AB Air Quality Code 17.0102 (c)(1)(L)(x).

APPLICATION NOTES

The original application had an error for the emissions associated with EBPVD1 – EBPVD5. Corrected emissions calculations can be found in the permit file in an email dated February 15, 2024.

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 (Compliance demonstration, applicability, etc.)
17.0500 – Title V Procedures	NA	The facility does not have potential emissions above the applicability threshold of 100 tons per year for any criteria pollutant, 25 tons per year for any combination of hazardous air pollutants, or 10 tons per year for any individual hazardous air pollutant.
17.0700 – Toxic Air Pollutant Procedures and 4.1104 – Toxic Air Pollutant Guidelines	Entire Facility	The facility conducted a NC Air Toxics review. TAPs were found to be below the TAP permitting emission rates (TPERs), except for chromium. An initial dispersion modeling analysis was performed using AERMOD that determined that the facility would be below the acceptable ambient levels (AALs) for chromium. The emergency generators were exempt from toxics modeling, but a toxics analysis was still required to be conducted by the agency, so the facility modeled for acrolein, benzene, and formaldehyde. The resulting air toxics modeling indicated that the facility would be below the AALs for these pollutants. The associated stack parameters will be included in their permit. The exempt sources which are subject to GACT standards were included for informational purposes only. For further information, please see the modeling memo dated December 23, 2020.
4.0524 – New Source Performance Standards (40 CFR 60, Subpart JJJJ)	EGEN1 – EGEN8	These engines are subject to 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark 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 non-resettable hour meters, and nonemergency use (e.g., testing) is limited to 100 hours per year.
4.0530 – Prevention of Significant Deterioration	NA	The facility does not have potential emissions above the threshold of 250 tons/year for any criteria pollutant.
4.1111 – MACT (40 CFR 63, Subpart ZZZZ)	EGEN1 – EGEN8	Because these 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 NESHAP Subpart ZZZZ is achieved by compliance with NSPS Subpart JJJJ.
4.1111 – MACT (40 CFR 63, Subpart WWWWWW)	VPS1-VPS6	The process is subject 40 CFR Part 63, Subpart WWWWWW – National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Standards. The applicable part of the rule applies to the thermal spraying operation. The rule requires the facility to operate a capture system that collects PM emissions from the thermal spraying process and transports the emissions to a fabric, cartridge, or HEPA filter . There are also recordkeeping and recording requirements.

4.1111 – MACT (40 CFR 63, Subpart ZZZZZZ)	FURNACE1-FURNACE10	This process is subject to 40 CFR Part 63, Subpart ZZZZZZ – National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries. The process is defined as being a nonferrous foundry that uses material containing chrome, lead, or nickel in amounts greater than or equal to 0.1 percent by weight. The metal ingots used in this process contain chrome and nickel at amounts greater than 0.1%. The rule requires certain management practices including covering or enclosing the melting operation and metal purchasing requirements. There are also recordkeeping and recording requirements.
4.0515 – Particulates from Miscellaneous Industrial Processes	FURNACE1-FURNACE10, APPS1-APPS5, ALUM1, EBPVD1 – EBPVD5	The allowable emission rate is a function of the process weight rate and shall be determined by the following equation, where P is the process throughput rate in tons per hour (tons/hr) and E is the allowable emission rate in pounds per hour (lbs/hr): $E = 4.10 * (P)^{0.67}$ for P < 30 tons/hr All the processes that have particulate matter emissions were evaluated and emissions were below the allowable emission rate for each process. See the regulatory notes below.
4.0516 – Sulfur Dioxide Emissions from Combustion Sources	SHELL1-SHELL7, WAXFURN1-WAXFURN2, EGEN1 – EGEN5, FWP	This regulation limits SO_2 emissions from these sources to 2.3 lb/MMBtu. The AP-42 SO_2 emission factor for natural gas combustion for small boilers (SHELL1-SHELL7 and WAXFURN1-WAXFURN2) is 0.00006 lb/MMBtu. The AP-42 SO_2 emission factor for natural gas internal combustion engines (emergency generators EGEN1-EGEN5, FWP) is 0.006 lb/MMBtu. Thus, the facility is in compliance.
4.0521 – Control of Visible Emissions	FURNACE1-FURNACE10, APPS1-APPS5, ALUM1, EBPVD1 – EBPVD5	This regulation limits visible emissions from each of these sources to no more than 20% opacity due to their post-1971 manufacture date. Compliance with this regulation will be determined through Agency inspections.
4.0605 – General Recordkeeping and Reporting Requirements	Entire facility	The facility is required to submit reports with production data that will facilitate annual emissions calculations by the agency.
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

4.0515. The table below shows the calculated allowable emission rates based on the equation E = 4.10 *(P)0.67 for P < 30 tons/hr, where where P is the process throughput rate in tons per hour (tons/hr) and E is the allowable emission rate in pounds per hour (lbs/hr). This is compared to the actual emission rate for each process.

Process	Allowable Emission Rate (E)	Actual Emission Rate	Lower than Allowable Rate?
FURNACE1-FURNACE10	2.18E-01	3.00E-06	Yes
EBPVD1-EBPVD10	8.83E-02	2.40E-02	Yes
APPS1-APPS5	8.36E-02	1.50E-02	Yes
ALUM1	9.95E-03	7.50E-02	Yes

4.1111. The facility is subject to 40 CFR Part 63, Subpart ZZZZZZ – National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries. The process at the facility is defined as "other nonferrous foundry" due to the amount of HAP in the metal it is melting. This rule has is applicable when the annual melt capacity equals or exceeds 600 tons per year. The facility has a maximum process rate of 1,095 tons per year. If the facility were to exceed 6,000 tons per year, additional requirements would apply.

17.0700. The facility submitted air dispersion modeling for chromium with their original permit application because they exceed the TPER for this pollutant. The modeling demonstrated that the facility emissions would be below the AAL for chromium. The facility also exceeded the TPERs for acrolein, benzene, and formaldehyde, but the facility cited the toxics exemption for the emergency engines based on Chapter 17.01029(a)(25) which states "natural gas and propane fired combustions sources with an aggregate allowable heat input less than 450 million Btu per hour that are the only source of benzene at the facility" could be exempted. While this exemption appeared to apply, further investigation into the NCDEQ rule showed that they added "external" to the combustion sources in the rule, thus eliminating internal combustion sources from this rule, and this exemption could no longer apply.

The emergency engines were still 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". For this application, the toxics review requires air dispersion modeling, and the facility voluntarily submitted modeling for acrolein, benzene, and formaldehyde and included the emergency engines and other natural gas combustion sources.

With this permit modification, the size of the original engines that were included in the modeling demonstration have changed. The total emissions from the new engines are lower than what was previously modeled. Additionally, the engines are now located on the roof which is further from the fence line than the previous engines and will result in better dispersion due to the height of the new stacks. Therefore, no additional modeling is required. The permit will be updated with the stack parameters of the new engines. The facility submitted updated parameters on page 8 of their application, and mistakenly used hourly emission rates for benzene when they should have used pounds per year averaged over 8760 hours. The agency used the corrected version in the permit.

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

EMISSION NOTES

Calculations of potential emissions were performed by the facility and reviewed by the Agency. As stated above in the application notes, an error for the emissions associated with EBPVD1 – EBPVD5 was found. Corrected emissions calculations were sent to the Agency via email and were included in the updated emission calculations. Further information regarding these emissions calculations can be found in the email saved to the folder for this permit.

Emissions for FURNACE1 – FURNACE10 were updated by the facility and those calculations were included in the agency calculations. Additionally, emissions for FPI2 were calculated by the agency more conservatively than the estimates provided by Pratt and Whitney. The Agency assumed calculated emissions based on parts per hour for 8760 hours instead of total annual parts. This resulted in a slight increase in VOC emissions.

Estimated actual emissions were provided for this review since the facility has not operated for an entire year. Estimates are based on the facility operating 4160 hours and the emergency engines operating 100 hours.

SECTION E

SUPPORTING DOCUMENTATION

(Provide brief description of any attachments)

1. Permit Application
2. Emissions Calculations
3. Draft Permit
4. Draft Permit Cover Letter

Asheville-Buncombe Air Quality Agency

Asheville-Buncombe Air Quality Agency Advisory Committee

SUBJECT: February 15, 2024 Meeting

The Advisory Committee for the Asheville-Buncombe Air Quality Agency (AB Air Quality) met on February 15, 2024, at 4:00 PM via Microsoft Teams.

Members Present:	Members Absent:
Evan Couzo, Chair	
Keith Bamberger	
Ned Guttman	
Jim Neely	
Ichaya Dhungel	
Jay Haney	
Kevin Tipton	

Staff Present: *Ashley Featherstone, Director; Kevin Lance, Field Services Program Manager; James Raiford, Permitting Program Manager: Betsy Brown, Air Quality Coordinator*

Others Present: Ava Ingle, Lenior Rhyne graduate student and former UNCA McCullough Fellow; Kelly Sheckler, EPA Region 4; Mia South, EPA headquarters; Emma Cady, Energy Star EPA Region 4; and Kayla Kern, Energy Star Coordinator EPA Region 4

1. Review and Approval of Agenda

2. Review and Approve August and October Minutes
   Dr. Couzo made a motion to approve the minutes from August and October 2023. The motion was seconded by Mr. Haney.
   The motion passed unanimously.

3. Special Presentation by Ava Ingle, UNCA Graduate, McCullough Fellowship, Energy Star Treasure Hunts/Audits at 4 local microbreweries
   Presentation
   Ms. Ingle graduated from UNC Asheville with a bachelor's in environmental studies and is currently working on her masters in sustainability studies. She gave a presentation about her undergraduate research project on discovering energy efficiency opportunities in Asheville's craft brewing industry. Her research was through the McCullough Fellowship at UNCA. Ms. Ingle partnered with the Agency, her community partner; Dr. Evan Couzo, faculty advisor; and Marshall Goers, an engineer with Waste Reduction Partners. The goal was to discover ways that

brewing can be more energy efficient and reduce the greenhouse gas emissions to the atmosphere.

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 greenhouse gas emissions.

Ms. Ingle used the EPA Energy Star program Treasure Map which is designed specifically for microbreweries to find and identify energy efficiency improvements in four local microbrewery 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.

EPA staff were very interested and excited about Ms. Ingle's project. The attendees discussed opportunities to expand this project across the county. There may be an opportunity for Ms. Ingle to expand this project into her master's thesis.

Ms. Featherstone noted the Agency is interested in continuing the program with summer internships each year. If the EPA had funds to support that it would be helpful to not have to take funds from the Agency budget to pay interns. She also wanted to promote Ms. Ingle's project and the participation of the local breweries. We can recognize the four participating breweries during Asheville Brewery Week in May and encourage other breweries to participate. She hopes to get some breweries willing to sign the Energy Star pledge and give more recognition if they take the pledge. A 10% energy reduction is the Energy Star pledge goal but is non-binding. Wicked Weed has been approached to sponsor the function. The Agency would provide certificates of participation or appreciation or something similar that the brewery could display.

There was discussion around what each brewery could do to realize energy savings based on Ms. Ingle's findings. It was noted that there might be grant opportunities to monetarily assist

the breweries with the costs involved in making those changes. Ms. Ingle made reports for each facility, and with their permission, said she would share each of them with those at this meeting.

Ms. Ingle is also considering expanding the brewery sustainability initiative to include wastewater concerns and possibly the consideration of pollinator gardens. The possibility of breweries adding solar panels to offset some of their energy use was also mentioned.

Ms. Featherstone mentioned that she had shared a draft news article with the committee. She welcomed any suggestions on the news article and how to strategize the function in May. Beer Week has social media networks which might be useful to get the word out to the public. EPA has been invited and may consider making a supporting statement, but that is a management decision. It was suggested that invitations could be made at the state level also.

4. UNCA Project Updates
    a. Purple Air and Raspberry Pi Sensor Project Updates
    Dr. Couzo has not been able to find enough places as he had wanted to host sensors. Some people have concerns, possibly about what the results might be and repercussions from that. He and his students are deploying the sensors in stages. He is looking at churches as other location options. The sensors require electricity and Wi-Fi. Buncombe county libraries and parks were mentioned as possibilities. Ms. Featherstone could reach out to the library director. Fire stations were also mentioned as a potential and interesting site, perhaps in conjunction with CO monitors. One station is interested in idle reduction technology. It would be an interesting study to compare the CO and PM before and after the installation of idle reduction technology on their trucks.

    Mr. Bamberger mentioned a Western Carolina student was doing a project with weather balloons and suggested that Dr. Couzo might want to work with her and add one of his sensors to one of her wet weather balloons.

5. Agency Updates
    a. EPA announces revised PM2.5 standard. Will result in more code yellow days.
    https://www.epa.gov/pm-pollution/proposed-decision-reconsideration-national-ambient-air-quality-standards-particulate
    The committee will receive updates at the next meeting.

    b. Buncombe County Schools Electric School Bus Initiative Update on grant/rebate applications
    The committee will receive updates at the next meeting.

    c. Community Science Shelter and Sign/Display project with Nesbitt Discovery Academy-meeting later this month
    The policy was updated based on comments from an earlier meeting. We hope to do an educational display at the sensor shelter and monitoring site. Ms. Featherstone reached out to CAPE who made suggestions about a public announcement. She has a meeting

planned with the Nesbitt Stem School about working in conjunction with the school since it is at their location. We would like to have a rollout with outreach to high school science teachers, colleges and the community. We can talk about this more at our next meeting.

6. Next meeting schedule: April 18, June 20, August 15, October 17, December 19
    a. In person meetings for one or more?
    The next meeting will be virtual on April 18.
    It was suggested that maybe we have an in-person meeting during the summer, possibly at a brewery.

The meeting was adjourned at 5:10pm.