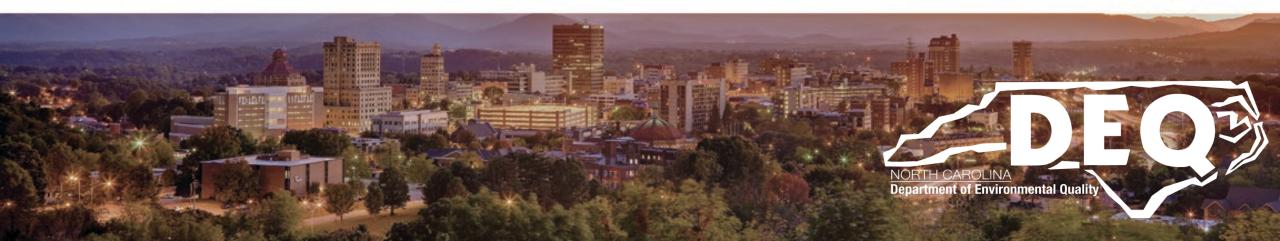


Division of Air Quality
March 16, 2020 Public Meeting
Active Energy Renewable Power
Draft Air Quality Permit



Public Meeting Objectives

<u>Active Energy Renewable Power (AERP) – Draft Air Quality Permit</u>

- Explain permitting process
- Describe permit classification
- Share expected facility emissions compared with actual county-wide emissions
- Describe the equipment being permitted
- Summarize permit requirements
- Open floor for comments and questions about the draft permit
- Responses to questions/comments will be captured in the permit review



Permitting Process

- Permit application receipt & review
- Verify emission factors and process rates
- Determine permit classification Small, Synthetic Minor, Title V
- Determine applicable rules/regulations federal & state
- Write enforceable permit requirements for applicable rules
- Issue the permit



Compliance Program

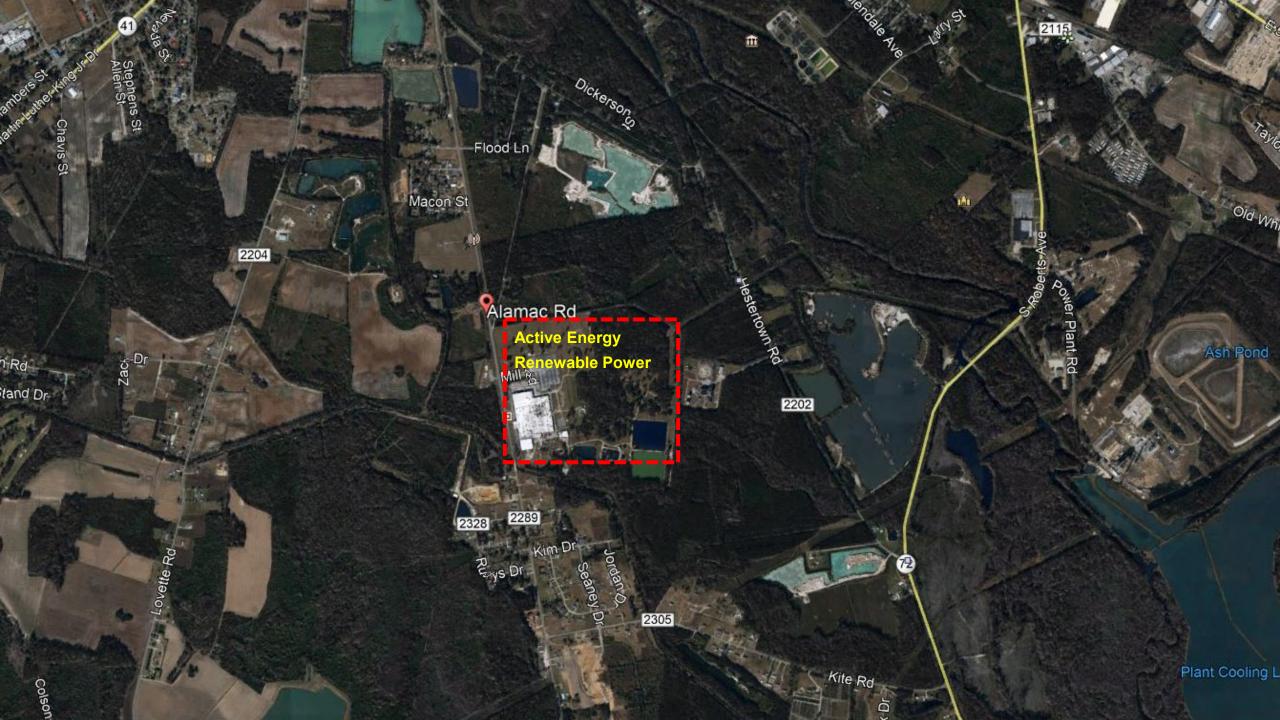


DAQ issued permits require a combination of (if not all of) the following:

- Inspection & Maintenance program
- Monitoring and Recordkeeping
- Reporting
- Source Testing

DAQ conducts unannounced inspections to verify compliance





Application Receipt and Permit Classification

Permit Application was received on November 4, 2019

- Review of emission rates/factors shows AERP has the potential to emit:
 - <100 tons/yr of Criteria Air Pollutants and
 - <25 tons/yr of Hazardous Air Pollutants

 An Air Quality Permit is required for AERP and they will be classified as a small or minor source



Process Equipment

Emission Source ID	Emission Source Description	Control System ID	Control System Description
ES-B-1 (NSPS)	Natural Gas-Fired Boiler 20 mmBtu/hr maximum heat input	N/A	N/A
ES-P-1	Pressure Cooker Process	CD-1	Water Circulation Condenser
ES-SPD-1	Screw Press/Pellet Press/Natural Gas- fired Dryer Process 4 mmBtu/hr maximum heat input	N/A	N/A



Other Equipment

Wastewater Treatment Plant

180 HP Diesel-fired Fire Pump (NESHAP ZZZZ) (NSPS IIII)

15 HP Diesel-fired Emergency Generator (NESHAP ZZZZ) (NSPS IIII)

Propane Vaporizer

Pellet Storage



Process Description

green & dry wood chips are raw material pressure cooked using steam generated from 20 mmBtu/hr natural gas-fired boiler

water vapor & VOCs condensed in a water-cooled condenser

wet cellulosic material from pressure cooker sent to a Screw Press, de-watering

de-watered cellulosic material sent to pellet press



pellets conveyed to pellet storage bin



finished pellets to 4 mmBtu/hr natural gas-fired dryer



Small Source Permit Requirements

<u>Applicable Federal Rules (combustion)</u>:

- NSPS Dc (boiler)
- NSPS IIII & NESHAP ZZZZ (engines)

State Rule Requirements:

- 15A NCAC 02Q .0309 Notification of Start-up
- 15A NCAC 02D .0605 VOC testing within 180 days of start-up (ES-P-1 & ES-SPD-1)
- 15A NCAC 02D .0611 Condenser continuous temperature monitoring, recordkeeping, and I&M

Other Applicable Rules

- 15A NCAC 2D .0503 Particulates from Fuel Burning Indirect Heat Exchangers
- 15A NCAC 2D .0515 Particulates from Miscellaneous Industrial Processes
- 15A NCAC 2D .0516 Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 2D .0521 Control of Visible Emissions
- 15A NCAC 2D .0535 Excess Emissions Reporting and Malfunctions
- 15A NCAC 2D .0540 Particulates from Fugitive Dust Emission Sources
- 15A NCAC 2D .1806 Control and Prohibition of Odorous Emissions
- 15A NCAC 2Q .0711 Emission Rates Requiring a Permit



What air emissions are expected?

Pollutant	AERP Expected Actual Air Emissions (tons per year)	Robeson County Total Air Emissions CY 2016 (tons per year)
Fine Particulate Matter PM _{2.5}	0.05	656
Sulfur Dioxide (SO ₂)	0.05	86
Carbon Monoxide	7.91	18,437
Volatile Organic Compounds	23.63	4,139
Nitrogen Oxides (NOx)	9.41	3,348
Toxic / Hazardous Air Pollutants (acetaldehyde highest)	2.48	797 (CY 2014)

^{*}Eight (8) TAPs identified. All are below the emission rates requiring modeling.



Proposed Air Permit

Recap of major issues:

- Majority of air emissions are VOCs;
- No TAPs exceed the rate requiring a permit and modeling;
- VOC emissions compliance verified through stack testing and continuous parameter monitoring.



Documents Review and Comment Submittals

<u>Draft Permit, Draft Permit Review, Permit Application, Environmental Justice Snapshot and Public Notice:</u>

https://deq.nc.gov/news/events/public-meeting-active-energy

Public comment period closes March 20th at 5pm:

Email to DAQ.publiccomments@ncdenr.gov

please type "Active Energy Renewable Power" in the subject line.



Comments or Questions?



Heather Carter
Regional Supervisor
910-433-3361
Heather.Carter@ncdenr.gov

Greg Reeves
Permit Coordinator
910-433-3373
Gregory.Reeves@ncdenr.gov

