

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date: **date, 2006**

Region: Asheville Regional Office
County: Caldwell
NC Facility ID: 1400167
Inspector's Name: Patrick Ballard
Date of Last Inspection: 11/29/2005
Compliance Code: 4/In Compliance - Certification

Facility Data			Permit Applicability (this application only)		
Applicant (Facility's Name): Trigen Biopower, Inc. - Lenoir Facility Address: Trigen Biopower, Inc. - Lenoir 700 Complex Place Lenoir, NC 28645 SIC: 4961 / Steam Supply NAICS: 22133 / Steam and Air-Conditioning Supply Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: NA NSPS: NA NESHAP: NA PSD: NA PSD Avoidance: NA NC Toxics: NA 112(r): NA Other:		
Contact Data			Application Data		
Facility Contact	Authorized Contact	Technical Contact	Application Number: 1400167.05A Date Received: 09/28/2005 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 07568/T07 Existing Permit Issue Date: 07/26/2001 Existing Permit Expiration Date: 06/30/2006		
Sam Francis Plant Manager (828) 754-0660 P.O. Box 612 Lenoir NC, 28645	Sam Francis Plant Manager (828) 754-0660 P.O. Box 612 Lenoir NC, 28645	Lauren Billheimer EHS Engineer (704) 510-4372 1931 Winsted Ct Charlotte NC, 28262			
Review Engineer: Mark Cuilla Review Engineer's Signature: Date:			Comments / Recommendations: Issue 07568/T08 Permit Issue Date: date, 2006 Permit Expiration Date: date, 2011		

I. Purpose of Application

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (**07568T07**) was issued on July 26, 2001, and is currently scheduled to expire on June 30, 2006. The renewal application was received on September 28, 2005, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

In addition to renewing the permit, the Permittee has requested that the mailing address for the Permittee be changed as follows:

Sam Francis
 Plant Manager
 P.O. Box 612
 Lenoir, NC 28645.

The Permittee has also requested that the emergency relief vents associated with the gasifiers be added to the list of insignificant activities, that the permit reflect that propane is used as a light-off fuel for the boilers (**ID Nos. ES-3 and ES-4**), and that a permit shield for nonapplicability requirements for MACT be included.

II. Facility Description

The facility is a steam generating facility, providing steam as a product to local customers. Current permitted equipment includes two gasified woodwaste boilers, two natural gas and/or No. 2 fuel oil-fired boilers, associated wood handling operations, and fuel oil storage tank.

III. History/Background/Application Chronology

July 26, 2001 – Permit **07568T07** was issued as a first time title V permit. There have been no permit modifications since its issuance.

September 28, 2005 – Permit application **1400167.05A** was received for renewal.

May 10, 2006 – Permit application was transferred to me for processing from Jeff Twisdale. I requested via email that the Permittee provide me PSD calculations and emission factors for the permitted equipment.

May 12, 2006 – I received an email from Ms. Lauren Billheimer including the PSD calculations and emission factors used at this facility.

May 19, 2006 – DRAFT permit sent to Permittee, Regional Office and Title V Coordinator for comment prior to public notice and EPA review.

May 23, 2006 – Received comments on DRAFT permit from Regional Office. See Section X of this Document for a discussion.

June 1, 2006 – Received comments on DRAFT permit from Permittee. See Section X of this Document for a discussion.

Date, 2006 – DRAFT sent to 30-day public notice and 45-day EPA review prior to issuance.

IV. Permit Modifications/Changes and ESM Discussion

The following table describes the modifications to the current permit as part of the renewal process.

Page(s)	Section	Description of Change(s)
Attachment	Insignificant activities	-added equipment per permit application -placed equipment in new table format
Cover	-	-amended all dates and permit revision numbers -corrected regional office address
All	Header	-amended permit revision number
3	Equipment table	-added NSPS Subpart citation -updated equipment descriptions
4	2.1 A (table) 2.1 A.1.a 2.1 A.1.c	-corrected cross reference -added equipment ID Nos. -added equipment ID Nos.
5	2.1 A.2.b 2.1 A.2.c 2.1 A.2.d 2.1 A.2.f	-added equipment ID Nos. -added equipment ID Nos. -updated testing requirement to include new date -added equipment ID Nos.
6	2.1 A.3.b 2.1 A.3.c 2.1 A.3.d	-updated shell language -updated shell language -updated shell language

Page(s)	Section	Description of Change(s)
7	2.1 B (table) 2.1 B.1.c 2.1 B.1.d 2.1 B.2.a 2.1 B.2.c	-corrected cross reference -updated shell language -added equipment ID Nos. -added equipment ID Nos. -added equipment ID Nos
8	2.2 A (table)	-corrected cross reference
8-9	2.2 A.1	-corrected rule citation -updated MRR requirements -changed quarterly reporting to semi-annual
10	2.3 b	-added permit shield for nonapplicable requirements (specifically MACT)
10-18	General Conditions	-updated shall conditions

The following table indicates the modifications to ESM as a result of this permit renewal:

Current Description	Change resulting from permit renewal
Wood handling/storage	Wood handling and storage (<i>includes two woodwaste storage silos and screw conveyor systems; ID No. I-Wood</i>)
One 20,000 gallon fuel oil storage tank	<i>One fuel oil storage tank (20,000 gallon capacity; ID No. I-Tank)</i>
NA	<i>Two emergency relief vents associated, one each, with the three-pass scotch marine gasifiers installed on wood boilers (ID No. I-Vents)</i>
One three-pass scotch marine gasified woodwaste-fired boiler (55.5 million Btu per hour heat input) – (Site generated used oil may be utilized on boiler start-up only)	One three-pass scotch marine gasified woodwaste-fired boiler (55.5 million Btu per hour <i>maximum</i> heat input capacity; ID No. ES-1) – (Site generated used oil may be utilized on boiler start-up only)
One three-pass scotch marine gasified woodwaste-fired boiler (55.5 million Btu per hour heat input) – (Site generated used oil may be utilized on boiler start-up only)	One three-pass scotch marine gasified woodwaste-fired boiler (55.5 million Btu per hour <i>maximum</i> heat input capacity; ID No. ES-2) – (Site generated used oil may be utilized on boiler start-up only)
One No. 2 fuel oil-fired boiler (97.5 million Btu per hour heat input)	One No. 2 fuel oil-fired boiler (97.5 million Btu per hour <i>maximum</i> heat input capacity; ID No. ES-3) – (<i>Propane may be used as light-off fuel</i>)
One No. 2 fuel oil/natural gas-fired boiler (23.7 million Btu per hour heat input)	One No. 2 fuel oil/natural gas-fired boiler (23.7 million Btu per hour <i>maximum</i> heat input capacity; ID No. ES-4) – (<i>Propane may be used as light-off fuel</i>)

V. Regulatory Review

The facility is currently subject to the following regulations:

- 15A NCAC 2D .0502, Purpose
- 15A NCAC 2D .0503, Particulates from Fuel Burning Indirect Heat Exchangers
- 15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 2D .0521, Control of Visible Emissions
- 15A NCAC 2D .0524, New Source Performance Standards
- 15A NCAC 2Q .0317, Avoidance Conditions (for 15A NCAC 2D .0530)

A regulatory review for these existing requirements will not be included in this document. No new regulations are necessary for this permit renewal.

VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS –

1. The Permittee is subject to the following permit requirements for its Subpart Dc affected sources (**ID Nos. ES-1 and ES-2**). This renewal does not affect this status:

2. **15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS**

- a. *The Permittee shall comply with all applicable provisions, including the testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards” (NSPS) as promulgated in 40 CFR 60 Subpart Dc, including Subpart A “General Provisions.”*

Emission Limitations [15A NCAC 2D .0524]

- b. *Particulate matter emissions from these sources (**ID Nos. ES-1 and ES-2**) shall not exceed 0.10 pounds per million Btu heat input. [60.43c(b)]*
- c. *Each source (**ID Nos. ES-1 and ES-2**) shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent (six-minute average), except for one six-minute period per hour of not more than 27 percent opacity. [60.43c(c)]*

Testing [15A NCAC 2D .0524]

- d. *Under the provisions of NCGS 143-215.108 and 40 CFR 60.8a, the Permittee shall demonstrate compliance with the emission limits above by testing these sources (**ID Nos. ES-1 and ES-2**) for particulate matter in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in General Condition JJ. Testing shall be completed by (**date one year from permit issuance**) unless an alternative date is approved by the DAQ. If the results of this test are above the limit given in Section 2.1 A.2.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.*

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .0508(f)]

- e. *As required by 15A NCAC 2D .0524 under 40 CFR Subpart Dc, 60.47(c):*
- i. *the Permittee shall install, calibrate, maintain, test, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and recording the output of the measured opacity on these sources (**ID Nos. ES-1 and ES-2**);*
 - ii. *the COMS shall be installed and certified in accordance with 40 CFR Part 60, Appendix B, Performance Specification – Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources;*
 - iii. *the COMS shall be calibrated, audited, and maintained in accordance with 40 CFR Part 60, Subpart A (General Provisions), Section 60.13 and the Manufacturer’s written recommendations for inspection, preventive maintenance, and audit;*
 - iv. *the COMS and the facility shall be assessed for good operation and maintenance (O&M) practices in accordance with 40 CFR Part 60, Subpart A, Section 60.11(d); Subpart Dc, Section 60.47c(a);*
 - v. *the opacity excess emissions report (EER) shall be submitted in accordance with 40 CFR 60, Subpart 60.7(c) and (d), and 40 CFR Part 60, Subpart Dc, Section 60.48c(c); and*
 - vi. *the COMS shall meet the “Notification and Recordkeeping Requirements” specified in 40 CFR Part 60, Subpart A, Sections 60.7(a), (b), and (e).*
- f. *Per 40 CFR 60.48c(g), the Permittee shall keep records of the amounts of each fuel fired each day in these sources (**ID Nos. ES-1 and ES-2**) including used oil combusted upon start-up only.*
- g. *Per 40 CFR 60.48c(j), the Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.*

2. The Permittee is subject to the following permit requirements for sources (**ID Nos. ES-3 and ES-4**). This renewal does not affect this status:

The Permittee is shielded from the following nonapplicable requirements as of the date of issuance of this permit based on information furnished in a letter dated March 30, 2001 and May 7, 2001, from Trigen-BioPower, Inc. This shield does not apply to future modifications or changes in the method of operation. [15A NCAC 2Q .0512(a)(1)(B)]

- a. 15A NCAC 2D .0524 [40 CFR 60.40b (Subpart Dc)] is not applicable to these sources (**ID Nos. ES-3 and ES-4**) because:
- i. Subpart Dc applies to steam generating units that commence construction, modification, or reconstruction after June 9, 1989 and that have a maximum design heat input capacity between 10 and 100 million Btu per hour;
 - ii. This source (**ID No. ES-3**) has a maximum heat input capacity of 97.5 million Btu per hour and was manufactured (constructed) in 1969. This source (**ID No. ES-4**) has a maximum heat input capacity of 23.7 million Btu per hour and was manufactured (constructed) in 1971;
 - iii. These sources (**ID Nos. ES-3 and ES-4**) were purchased by the Permittee and relocated/reassembled at the Lenoir, North Carolina facility in 1993 and 1995, respectively. While some source components were replaced as part of the reassembly, the fixed capital cost of the replacement components did not exceed 50 percent of the fixed capital costs that would be required to construct a comparable entirely new source. Thus the sources can not be considered "reconstructed" under the definition in 40 CFR 60.15; and
 - iv. The design capacities or method of operation were not altered as a result of the reassembly and recommissioning of the sources (**ID Nos. ES-3 and ES-4**). Therefore, there was no increase in the hourly emission rate from the sources and these projects can not be considered a "modification" under 40 CFR 60.14.

NESHAPS/MACT – The Permittee has requested that a statement be added to document non-applicability of MACT regulations based on a letter and emission calculations submitted to DAQ on June 16, 2003, and confirmation issued by DAQ on July 11, 2003. As a result the following language has been added to the permit as Section 2.3 b:

The Permittee is shielded from the following nonapplicable requirements as of the date of issuance of this permit based on information furnished in letters dated March 30, 2001, May 7, 2001, and June 16, 2003 from Trigen-BioPower, Inc. This shield does not apply to future modifications or changes in the method of operation. [15A NCAC 2Q .0512(a)(1)(B)]:

- b. 15A NCAC 2D .1111 is not applicable to facility-wide because:
- i. Source testing conducted July 2002 for hydrogen chloride, formaldehyde, and acetaldehyde and the development of source specific emission factors for these pollutants; and
 - ii. Applying current AP-42 emission factors for the remaining hazardous air pollutants (HAPs) emitted;
- indicates that the potential emissions for all HAPs emitted from this facility are below the Title III threshold of 10 tons per year for any single HAP or greater than 25 tons per year for all HAPs combined. As such, the facility is classified as a Title III minor source as affirmed by DAQ in its July 11, 2003 letter to the Permittee, and is not subject to Section 112 requirements. The Permittee shall keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source becomes an affected source. The determination must include the analysis demonstrating why the Permittee believes the source is unaffected pursuant to 40 CFR 63.10(b)(3). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these records are not maintained.*

Therefore, MACT will not apply to this facility unless its potential emissions increase beyond the threshold amounts.

PSD – The facility is currently subject to a 250-ton per year PSD avoidance limit for each of the following pollutants: PM₁₀, sulfur dioxide, nitrogen oxide, carbon monoxide, and volatile organic compounds. This permit renewal action does not affect this status. However, as part of this renewal, the monitoring/recordkeeping language has been modified to include specific emission calculation equations for each pollutant. Also, the current quarterly reporting requirement has been modified to semi-annually. The modified permit language is as follows:

1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. *In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources, these sources (ID Nos. ES-1 through ES-4) shall discharge into the atmosphere less than 250 tons each of PM₁₀, sulfur dioxide, nitrogen oxide, carbon monoxide, and volatile organic compounds per consecutive 12-month period.*

Testing [15A NCAC 2D .0501(c)]

- b. *If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c) and General Condition JJ. If the results of this test are above the limits given in Section 2.2 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.*

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. *The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of woodwaste/No. 2 fuel oil/natural gas fired in these sources (ID Nos. ES-1 through ES-4). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amount of fuel used is not monitored.*
- d. *Each calendar month, the Permittee shall calculate and record the PM₁₀, sulfur dioxide, nitrogen oxide, carbon monoxide, and volatile organic compound emissions from these sources (ID Nos. ES-1 through ES-4) in accordance with the following equations:*

- i. Particulate matter.

$$E_{PM10} = [(Q_{GWa})(EF_{GW1a}) + (Q_{GWb})(EF_{GW1b}) + (Q_{FO})(EF_{FO1})] / 2000$$

- ii. Sulfur dioxide.

$$E_{SO2} = [(Q_{GW})(EF_{GW2}) + (Q_{FO})(EF_{FO2})(S)] / 2000$$

- iii. Nitrogen oxides.

$$E_{NOx} = [(Q_{GW})(EF_{GW3}) + (Q_{FO})(EF_{FO3})] / 2000$$

- iv. Carbon monoxide.

$$E_{CO} = [(Q_{GW})(EF_{GW4}) + (Q_{FO})(EF_{FO4})] / 2000$$

- v. Volatile organic compounds.

$$E_{VOC} = [(Q_{GW})(EF_{GW5}) + (Q_{FO})(EF_{FO5})] / 2000$$

Where:

- E_{PM10} = Particulate matter emissions in tons per month
- E_{SO2} = Sulfur dioxide emissions in tons per month
- E_{NOx} = Nitrogen oxide emissions in tons per month
- E_{CO} = Carbon monoxide emissions in tons per month
- E_{VOC} = Volatile organic compounds emissions in tons per month
- Q_{GW} = Total quantity of gasified wood combusted in million Btu per month
- Q_{GWa} = Quantity of gasified wood combusted in ES-1 in million Btu per month

Q_{GWb} = Quantity of gasified wood combusted in ES-2 in million Btu per month
 Q_{FOw} = Quantity of fuel oil combusted in million Btu per month
 EF_{GW1a} = 0.084 pounds PM_{10} per million Btu (based on 7/25/02 Stack test; ID No. ES-1)
 EF_{GW1b} = 0.0036 pounds PM_{10} per million Btu (based on 7/24/02 Stack test; ID No. ES-2)
 EF_{GW2} = 0.00519 pounds SO_2 per million Btu (based on 10/1/98 Stack test)
 EF_{GW3} = 0.830 pounds NO_x per million Btu (based on 7/25/02 Stack test)
 EF_{GW4} = 0.162 pounds CO per million Btu (based on 7/25/02 Stack test)
 EF_{GW5} = 0.0021 pounds VOC per million Btu (based on 7/25/02 Stack test)
 EF_{FO1} = 3.3 pounds PM_{10} per 10^3 gallons [0.024 pounds per million Btu] (based on 9/98 AP42)
 EF_{FO2} = 28.4 pounds SO_2 per 10^3 gallons [0.204 pounds per million Btu] (based on 9/98 AP42)
 EF_{FO3} = 24 pounds NO_x per 10^3 gallons [0.173 pounds per million Btu] (based on 9/98 AP42)
 EF_{FO4} = 5 pounds CO per 10^3 gallons [0.036 pounds per million Btu] (based on 9/98 AP42)
 EF_{FO5} = 0.2 pounds VOC per 10^3 gallons [0.001 pounds per million Btu] (based on 9/98 AP42)

Assumptions: Fuel oil heating value = 139,000 Btu per gallon
 Wood heating value = 8000 Btu per pound @ 7% moisture
 1.242 million Btu per million pounds steam produced (wood combustion)

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained or if the PM_{10} , sulfur dioxide, nitrogen oxide, carbon monoxide, or volatile organic compound emissions exceed the limits in Section 2.2 A.1.a above.

- e. The Permittee shall submit an application for a permit modification within 30 days of revising any emission factor used in the compliance demonstrations, as provided in Sections 2.2 A.1.d.i through v above (e.g., as a result of stack test results or other information). The emission factor(s) may be updated using an administrative permit amendment as provided in 15A NCAC 2Q .0514. Factors provided in U.S. EPA's AP-42, shall be excluded from this requirement (i.e., no permit modification is required for U.S. EPA's AP-42 updates).

Reporting [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. the monthly quantities of wood/No. 2 fuel oil/natural gas combusted for the previous 17 months;
 - ii. the monthly emission totals for PM_{10} , sulfur dioxide, nitrogen oxide, carbon monoxide, and volatile organic compound actual emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months; and
 - iii. the rolling 12-month emission totals for PM_{10} , sulfur dioxide, nitrogen oxide, carbon monoxide, and volatile organic compound actual emissions for the previous 17 months.
- All instances of deviations from the requirements of this permit must be clearly identified.

Sample calculations are as follows:

NO_x emissions for April 2004 (as presented in quarterly report):

Fuel oil burned – 3245 gallons/month
 ES-1 steam produced – 15,347 mlbs/month
 ES-2 steam produced – 13,070 mlbs/month

Assumptions/conversions:

Fuel oil heating value – 139,000 Btu/gallon
 Wood heating value – 8,000 Btu/lb @ 7% moisture

Based on initial testing (Woerner's gasifier report) –
39.947 mmBtu input/32.162 mlbs steam output = 1.242 mmBtu/mlbs steam

Fuel oil mmBtu/mo = 3245 gal/mo x 139000 Btu/gal = 451 mmBtu/mo
ES-1 mmBtu/mo = 15,347 mlb steam/mo x 1.242 mmBtu/mlb steam = 19,061 mmBtu/mo
ES-2 mmBtu/mo. – 13,070 mlb steam/mo x 1.242 mmBtu/mlb steam = 16,233 mmBtu/mo

NOx monthly emissions:
= [(451 mmBtu/mo) x (0.173 lbs/mmBtu) + (19,061+ 16,233 mmBtu/mo) x (0.83 lbs/mmBtu)] / 2000
lbs/ton
= **14.686 tons per month**

This calculation is repeated for each pollutant for each month using the most recent fuel combustion numbers and emission factors.

112(r) – The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit renewal does not affect this status.

CAM – 40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard.

The facility currently operates two gasified woodwaste-fired boilers (**ID Nos. ES-1 and ES-2**) with associated multicyclones (**ID Nos. C1 and C2**), electrostatic precipitator (**ID No. CD-2**) and bagfilter (**ID No. F2**). These devices are for particulate matter control. Estimated PM₁₀ emissions from these 55.5 million Btu per hour boilers are 74.63 tons per year (DAQ spreadsheets), each. Therefore, CAM is not applicable to these sources.

VII. Facility Wide Air Toxics

The facility is not currently subject to NC Air Toxics. This permit renewal does not affect this status.

VIII. Facility Emissions Review

There is no change in emissions for this renewal.

The following table represents the latest years emission inventory from the facility:

Pollutant(s)	2004 Actual Emissions (tpy)
CO	34.55
NO _x	176.91
PM ₁₀	8.63
SO ₂	2.87
VOC	0.45
Total HAP/TAP	6.26

IX. Stipulation Review

There are no noted stipulation modifications necessary at this time.

X. Public Notice/EPA and Affected State(s) Review

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. The States of Virginia and Tennessee and the Mecklenburg County Local Program are effected programs within 50 miles of this facility.

The following comments were received from the Regional Office on the DRAFT permit prior to public notice and EPA review:

1. ID No. I-Wood is changed to include open wood piles and loading with a front end loader. I don't think they do any open wood piles. I think they burn wood strictly from the silos. May want to double check on this. *Agree, see Permittee's comments below.*
2. The modification table (item No. 4) lists a CAM citation. But, CAM does not apply to this facility and is not listed in the permit. *Agree, reference will be removed as suggested.*
3. The way the permit is written, after the stack test is complete (one year after permit issuance), this will trigger an administrative amendment permit modification. I assume this is RCO's intent? *Agree, if testing indicates that the facility is in compliance but that emission factor modifications are necessary then the Permittee shall submit a permit modification. If they are out of compliance with the current levels then the permit would need to be modified to reflect new factors as well and associated compliance issues would need to be resolved.*

The following comments were received from the Permittee on the DRAFT permit prior to public notice and EPA review:

1. On the insignificant activities list, this facility does not actually have open wood storage piles. Can you change the test to read "(includes two woodwaste storage silos and screw conveyor systems)". I don't know if its worth mentioning in the permit or elsewhere, but the pneumatic system that is used to transfer the woodwaste into the silos is owned and operated by Broyhill. *Agree, the change will be made as suggested.*
2. On the PSD avoidance calculations, we actually track the fuel burned in each gasifier system. Since the PM emission factors are different (with different pollution control equipment), maybe it would be good to use a method to designate ES-1 fuel and PM emissions factors from ES-2 fuel and PM factors. I would suggest something like:

$$E_{PM10} = [(Q_{GWa})(EF_{GW1a}) + (Q_{GWb})(EF_{GW1b}) + (Q_{FO})(EF_{FO1})] / 2000$$

Where: Q_{GW} = Total quantity of gasified wood combusted in million Btu per month

Q_{GWa} = Total quantity of gasified wood combusted in ES-1 in million Btu per month

Q_{GWb} = Total quantity of gasified wood combusted in ES-2 in million Btu per month

EF_{GW1a} = 0.084 pounds PM_{10} per million Btu (based on 7/25/02 Stack test; **ID No. ES-1**)

EF_{GW1b} = 0.0036 pounds PM_{10} per million Btu (based on 7/24/02 Stack test; **ID No. ES-2**)

Agree, change will be made to reflect PM differences.

3. Under the Permit Shield, Section 2.3 B, the covered sources should actually be "facility-wide" (instead of ES-1 and ES-2) since it's a MACT determination. *Agree, change will be made.*

XI. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for this renewal.

A consistency determination was not required for his renewal.

ARO recommends issuance of the permit and was presented with a DRAFT permit prior to notice and issuance.

RCO concurs with ARO's recommendation to issue the renewed air permit.