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VIA EMAIL TO Eric.Cornwell@dnr.state.ga.us

Mr. Eric Cornwell
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Georgia Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, GA 30354

Re: Comments on Draft Minor Source Air Quality Permit Proposed to be Issued to Green Energy Partners for the Green Energy Resource Center Facility, Permit Number 4911-089-0379-E-01-0

Dear Mr. Cornwell:

GreenLaw respectfully submits the following comments on the draft synthetic minor source air quality permit Number 4911-089-0379-E-01-0 ("Draft Permit") for the Green Energy Resource Center Facility ("Facility") on behalf of Citizens for a Healthy and Safe Environment ("CHASE"). The Draft Permit has been placed on public notice by the Georgia Environmental Protection Division ("EPD"). We appreciate the opportunity to submit these comments.

As discussed below, the Draft Permit should not be issued to the Facility for a number of reasons. As a preliminary matter, the application for the proposed permit is still deficient, although EPD has twice rejected applications by Green Energy Partners for this proposed Facility, and provided specific guidance with respect to the second application that Applicant Green Energy Partner – DeKalb , LLC ("Applicant" or "GEP") has chosen to disregard. Additionally, the proposed Facility will be a major source for air pollution, and has not gone through the required steps for permitting for new sources under prevention of significant deterioration ("PSD") and nonattainment new source review ("NA-NSR"). Further, many of the provisions of the proposed permit are inadequate to address air pollution from the Facility, which is especially critical for a source located in an area that is nonattainment for two criteria pollutants, near sensitive populations, and already home to many other sources of pollution.

I. Background

The issuance of a Draft Permit to the Applicant must be viewed within the context of Applicant's series of submissions to EPD over a one-and-a-half year period.

On April 13, 2011, Applicant submitted an application to EPD for a SIP Air Permit for the construction and operation of an 11.85 megawatt (MW) wood gasification power plant at 1770 Rogers Lake Road, Lithonia, Georgia 30058. On May 6, 2011, Furqan Shaikh, NO_X Permitting Unit Manager for EPD, noted 15 deficiencies in the initial application and requested additional information from Applicant regarding its permit application. Letter from Furqan Shaikh, EPD to Neville A. Anderson (May 6, 2011). Amongst other deficiencies, Mr. Shaikh noted that Applicant failed to provide detailed emissions calculations for the entire Facility, including the complete omission of emissions calculations for Hazardous Air Pollutants ("HAPs") and failure to conduct a toxic impact assessment ("TIA") as required by Georgia Air Toxics Guidelines. *Id.* Mr. Shaikh requested a complete response to his letter by July 5, 2011. *Id.* On July 20, 2011, Applicant withdrew its application.

On April 24, 2012, Applicant submitted a second application to EPD for a SIP Air Permit with synthetic minor limits for the construction and operation of an 11.5-12.5 MW biomass fuel electric generating facility on the same parcel of land located in Lithonia, Georgia. Permit Application from Green Energy Partners, No. 21128 (April 24, 2012) ("Second Application"). Again, EPD found deficiencies with Applicant's submission, and requested that Applicant provide clarifications and additional information with respect to 17 different aspects of the Second Application. Letter from Eric Cornwell, EPD to Neville Anderson (June 29, 2012). Within this list of 17 requests included a clarification as to the heat input capacity, which Applicant had assigned at least eight different values in its Second Application, and a request that the Applicant provide information as to emissions factors upon which it relied.

Applicant responded to these requests on July 31, 2012, with a letter purporting to address EPD's concerns and a revised permit application. Letter from Jimmy F. Kirkland to Eric Cornwell, EPD (July 31, 2012) ("Revised Second Application"). Based on this Revised Second Application, EPD issued a Draft Permit in October 2012.

II. Regulatory Framework

All new major stationary sources of air pollution are required to apply for construction and operating permits under the Clean Air Act ("CAA"). 42 U.S.C. §§ 7401, *et seq.* These permits are one of the primary ways that the CAA works to protect and enhance the nation's air quality. *See* 42. U.S.C. § 4201.

A. Preconstruction requirements for new major facilities.

1. PSD Requirements

The CAA prohibits construction of a new major stationary source of air pollutants in attainment areas except in accordance with a PSD permit. 42 U.S.C. § 7475(a). PSD permitting requires air quality analysis, additional environmental impacts analysis, public involvement, and the installation of best available control technology ("BACT"). 42 U.S.C. § 7475. The BACT

determination is a case-by-case determination that the facility is achieving the lowest limits achievable, taking into account energy, environmental, and economic impact. 42 U.S.C. § 7479.

A biomass facility located at 1770 Rogers Lake Road, Lithonia, Georgia would be considered a major source for PSD purposes if it had the potential to emit more than 250 tons per year ("tpy") of any one of the following pollutants: carbon monoxide, lead, particulate matter ("PM") less than 10 microns ("PM_{10}"), or sulfur dioxide ("SO_2"). *See* 42 U.S.C. § 7479(a)(1). If such a facility's potential to emit was 250 tpy of any one pollutant, than a lower threshold – known as the significant emissions rate – applies to determine whether the source is major for the other criteria pollutants.

2. NA-NSR Requirements.

Similarly, the CAA prohibits the construction of a new major stationary source of air pollutants in nonattainment areas except in accordance with a NA-NSR permit. 42 U.S.C. § 7503. NA-NSR permitting requires air quality analysis, additional environmental impacts analysis, public involvement, offsets, and a showing that the facility will achieve the lowest achievable emissions rate ("LAER"). *Id.* LAER requires the facility to choose the most stringent emissions limit, and there is no consideration of economics, energy, or environmental factors. *See* 42 U.S.C. § 7501. A proposed facility in a nonattainment area must also receive emissions offsets within the same general geographic area for each ton of nonattainment pollutant emitted by the source, which is usually achieved by shutting down other emissions units or closing down other facilities. 42 U.S.C. § 7503.

DeKalb County, Georgia, is considered nonattainment for both PM smaller than 2.5 microns ("$PM_{2.5}$"), and ozone. EPA Website: Currently Designated Nonattainment Areas for All Criteria Pollutants As of December 14, 2012, http://www.epa.gov/oaqps001/greenbk/ancl.html (last accessed December 26, 2012). Thus, a facility located at 1770 Rogers Lake Road, Lithonia, Georgia would be considered a major source for NA-NSR if it emitted 100 tpy of $PM_{2.5}$. *See id.,* 42 U.S.C. § 7602(j). Additionally, as nitrogen oxides ("NO_X") and volatile organic compounds ("VOCs") have been identified as precursors to ozone, a facility would be considered a major source for NA-NSR if it emitted 25 tpy of either NO_X or VOCs. Georgia Comp. R & Regs. 391-3-1-.02(tt), (yy).

3. Hazardous Air Pollutant ("HAPs") Requirements.

In addition to criteria pollutants, the CAA also regulates HAPs. 42 U.S.C. § 7412. No new major source of HAPs may begin actual construction until EPD has issued a case-by-case determination of emission limitations that will be no less stringent than the maximum achievable control technology ("MACT") limitations for new sources, as determined pursuant to 40 C.F.R. § 63.43. 40 C.F.R. § 63.42(c)(2), Ga Compo R. & Regs. r.391-3-1-.02(9)(b)(I6).

A major source of HAPs is defined as a stationary source or group of stationary sources located in a contiguous area and under co-ownership and control which have the potential to emit at least 10 tpy of any single HAP or at least 25 tpy of all HAPs in total. *See* 40 C.F.R. § 63.41, incorporated by reference into Ga. Compo R. & Regs. r. 391-3-1-.02(9)(D)(16).

B. Operating Permits for Major Sources (Title V Permits).

All major stationary sources of air pollution are required to apply for operating permits under Title V of the CAA. These permits must include emission limitations and other conditions necessary to assure continuous compliance with all applicable requirements of the Act, including the requirements of the applicable State Implementation Plan ("SIP"). *See* 42 U.S.C. §§ 7661a(a) and 7661c(a). The Title V operating permit program does not generally impose new substantive air quality control requirements but does require that permits contain monitoring, recordkeeping, reporting, and other requirements to assure continuous compliance by sources with all existing applicable emission control requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992) (EPA final action promulgating Part 70 rule). One purpose of the Title V program is to "enable the source, states, EPA, and the public to better understand the requirements to which the source is subject, and whether the source is meeting those requirements." *Id.* Thus, the Title V program is a vehicle to ensure appropriate application of and compliance with applicable CAA requirements.

The regulations require each Title V permit to include "[e]missions limitations and standards, including those operational requirements and limitations that assure compliance with *all applicable requirements* at the time of permit issuance." *See* Ga. Comp. R. & Regs. r. 391-3-1-.03(10)(d)1(i) (incorporating by reference 40 C.F.R. § 70.6(a)) (emphasis added). For every emissions limit in a permit, the permitting authority must ensure that the permit also contains compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. 40 C.F.R. § 70.6(c)(1).

The major source thresholds for a Title V permit may be different than those for a construction permit. For a biomass facility located at 1770 Rogers Lake Road, Lithonia, Georgia, the major source thresholds for Title V are as follows: 100 tpy of any criteria pollutant; 10 tpy of any single HAP or 25 tpy of total HAPs. *See* 42 U.S.C. § 7661(2). EPD has already found that this particular facility will be major under the Title V program, and is requiring the facility to submit a Title V application within 12 months of initial startup. Draft Permit condition 8.3; Narrative at page 15.

C. Minor Sources.

All of the major source triggers are based on potential to emit. Potential to emit is defined virtually identically among the various regulations:

> *Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

40 C.F.R. § 51.165(a)(1)(iii), 51.166(b)(4), 52.21(b)(4), and Ga. Comp. R. & Regs. r. 391-3-1.01(ddd) (defining Potential to Emit, and concluding with "Secondary emissions do not count in determining the potential to emit of a stationary source."); Ga Comp. R. & Regs. r. 391-3-1.02(7)(a)(2) (incorporating 40 C.F.R. § 52.21 by reference); 40 C.F.R. § 63.2 (HAPs definition section on potential to emit), Ga Comp. R. & Regs. r. 391-3-1-.02(9)(b)(15) (incorporating 40 C.F.R. § 63 by reference).

A facility may avoid some of the permitting processes and requirements mandated for major source permitting through classification as a synthetic minor source. This is done by limiting a source's potential to emit below the source thresholds described above through enforceable permit conditions. Ga. Comp. R. & Regs. r. 391-3-1-.01(cccc). These limitations must be practically enforceable permit limits that establish a clear legal obligation for the source and that allow compliance to be verified. *See* Georgia Department of Natural Resources, *Procedure to Calculate a Facility's "Potential to Emit" and to Determine its Classification.* These enforceable conditions must be included in the facility air quality permit. *Id.* Such a permit should only be granted if EPD finds that the facility can reasonably be expected to comply with all of the provisions of the CAA and the rules and regulations promulgated thereunder. Ga. Comp. R. & Regs. r. 391-3-1-.03(1)(c).

III. Comments

A. The Revised Second Application is still deficient, such that EPD cannot issue a final permit for the proposed Facility.

In order for EPD to issue a permit to a proposed synthetic minor source, there must be sufficient information for EPD to evaluate the facility, both for construction and operation of that facility.[1] With respect to the Second Application, and Revised Second Application, the applications do not contain all pertinent information as the Director has required for a full evaluation of the proposed construction, and it does not contain information deemed necessary by the Director to make full evaluation of the performance of the facility. *See* Georgia Comp. R. & Regs. R. 391-3-1-.03(1), 391-3-1-.03(2); Letter from Eric Cornwell, EPD to Neville Anderson (June 29, 2012) at 1, 3.

[1] CHASE notes that EPD has included condition 8.3, requiring applicant to submit an Initial Title V Permit application with 12 months of startup. Thus, the Draft Permit is both a construction and, for at least the first 12 months of operation, an operating permit.

In June 2012, EPD sent the Applicant a list of 17 items that were "necessary to complete th[e] application" for a synthetic minor operating permit and were also necessary for EPD to "complete review of [the] application." Letter from Eric Cornwell, EPD to Neville Anderson (June 29, 2012). Included in these comments were several items that the Facility failed to address in its Revised Second Application:

- Use of Emission Factors Other than AP-42: Item number 17 required the Applicant to provide justification for the use of any emissions factor other than EPA's AP-42 factors. While the Applicant did provide some justification for using an alternate emissions factor for HF, the Applicant still relies on the NCASI factors for acrolein, arsenic, chromium, carbon monoxide and manganese without any justification. *See* Revised Second Application at Project Summary page 16 ("AP-42 emission factors have been used for all compounds except acrolein, arsenic, chromium, carbon monoxide and manganese which used NCASI factors.").

- Benzene Emission Factor: Of particular concern is the emissions factor used for benzene to pass the Toxic Impact Assessment. As discussed in CHASE's comments on the Second Application, Applicant previously had chosen an emissions factor that strained belief and was significantly lower than either the NCASI or AP-42 factors. CHASE Comments at 10-11. Now, Applicant has created yet another emission rate for benzene, which is even lower than the one previously supplied, again without adequate justification. Revised Second Application at Project Summary page 16.
  EPD's only comment with regard to this benzene limit is that "[t]he [F]acility has requested a permit limit of 0.28 lb/hr for benzene in order to pass the Toxic Impact Assessment" and EPD makes no pretense of justifying this limit. *See* Narrative at 15. This is because neither EPD nor the Facility can justify so low a limit: the Facility states that the limit was derived from Tri-Mer's calculations and the ability of the ceramic tub collector to control benzene, but the Tri-Mer performance guarantee makes no references to its system's ability to control benzene, instead stating that benzene emissions will be resolved through full combustion as a result of proper retention time and temperature in the boiler. *Compare* Revised Second Application at Project Summary page 16 *with* Revised Second Application at Tri-Mer Guarantee.

- Vendor Guarantee for the Tri-Mer System: Item Number 13 from EPD's letter required the Facility to provide a vendor guarantee from Tri-Mer on its control system. The Applicant has provided what purports to be a vendor guarantee, however this guarantee is inadequate for a number of reasons, including failure to provide referenced documents upon which the guarantee is based, and failure to

provide the exact timeframe for which Tri-Mer will guarantee its system. This last is especially important, as Applicant is relying on the Tri-Mer system in order to avoid more rigorous permitting under PSD and NA-NSR procedures.

In addition, there are several other areas not adequately addressed by the Applicant in either of its permit applications. Several examples of these are as follows:

- Proper storage of Trona: The Applicant states that it will keep the Trona that it will inject into the Tri-Mer system in a 1,000 lb supersack. However, Trona in humid environments is not a trivial matter. Storing Trona in the Georgian environment in a supersack is likely to expose the Trona to gases from the atmosphere, which can transform the Trona into cementatious structure, rendering it useless for injection. Proper storage of Trona in humid environments involves specialized moisture and temperature control, which can create additional emissions from the Facility that have not been included in the application.

- Milling of Trona: Although the Applicant's material states that that effectiveness of the Trona improves with grinding, thus lowering particle size, there is no discussion of whether the Facility plans to mill or grind the Trona into smaller particles. *See* Revised Second Application, including Attachment 4 (Tri-Mer Literature). Such processes can be significant sources of fugitive emissions, and are not addressed within the applications.

- Onsite storage of biomass feed stock: There is little discussion of the on-site storage of the biomass feed stock within the Revised Second Application. Although the Applicant states that it will keep on-hand a minimum of a seven-day supply, it does not discuss the VOCs that will occur as a result of the decomposition of the stored woody biomass. *See* Revised Second Application. Further, these emissions do not appear to have been included in either the estimate of VOC emissions or HAPs emissions.

- NO_X emission rate: The Applicant's projection for controlled emissions of NO_X, at 23.4 tons per year, is equivalent to an average emissions rate of 5.34 lb per hour and 0.0286 lb/MMBtu. *See* Narrative at page 5. This rate is very low, much lower than the emissions rates for similar sources, which typically show controlled NO_X emission rates in the range of 0.06 to 0.08 when using ammonia injection. The applicant has provided no real evidence that this level is achievable.

- Ammonia slip: The Applicant states that it will inject ammonia to assist with NO_X reduction. However, no discussion of ammonia reemission from the control equipment due to unreacted ammonia has been included in the application, nor

does it appear that the effect of ammonia slip has been taken into account in PM emissions estimates.

- Modeling: Modeling was done by both GEP and then by EPD for purposes of the toxics impact assessment; however, both relied on the use of the SCREEN3 for modeling, which is outdated and inadequate. Instead of relying on the SCREEN3 dispersion model, which EPA replaced as of early 2011, EPD must require the use of a refined model, such as AERMOD, which is used in PSD and NA-NSR permitting. *See* http://www.epa.gov/ttn/scram/dispersion_prefrec.htm (last accessed December 26, 2012). The refined model would include effects such as aerodynamic downwash (to take into account buildings), actual meteorology, and terrain that were not accounted for in the SCREEN3 model. However, at the very least, EPD should require modeling under AERSCREEN, and should also require an evaluation of compliance with national ambient air quality standards ("NAAQS"). In addition, discrepancies between the modeling done by GEP and EPD, such as the flow rate used, raise serious concerns about the accuracy of the modeling that was performed.

EPD has clearly stated that it needs the required information to complete the application and fully evaluate the Facility. In addition, as discussed more fully below, several of the additional omitted items have implications on emissions estimates. Although EPD ignored regulatory requirements that EPD must have all information necessary to fully evaluate the construction and performance of the proposed Facility in issuing the Draft Permit, EPD cannot compound this problem by further issuing a final permit without the required information. *See* Georgia Comp. R. & Regs. R. 391-3-1-.03(1), 391-3-1-.03(2).

B. The Draft Permit cannot be issued to the Facility, because the Facility is a major emitting source under the CAA, subject to PSD, NA-NSR and case-by-case MACT procedures.

In the Revised Second Application, Applicant provides calculations for its potential to emit both before and after controls. The uncontrolled emissions estimates show that this source would be a major source, but for requested permit limitations and control technology. *See* Revised Second Application at Project Summary page 9 (showing NO_X, single largest HAP, Total HAPS all above threshold levels). However, neither the blanket emissions limitations, nor the provisions governing the control technology, create enforceable limitations sufficient to meet the requirements to be a synthetic minor.

1. The Facility cannot rely on blanket emissions limitations to achieve synthetic minor status.

The Draft Permit contains a number of blanket provisions that purport to ensure that the facility remains a synthetic minor under the CAA. Specifically, condition 2.5 is aimed at avoiding NA-NSR requirements by limiting NO_X emissions to less than 25 tpy; condition 2.6 is aimed at avoiding PSD review by limiting carbon monoxide emissions to 249 tpy; and condition 2.7 is aimed at avoiding case-by-case MACT determination by limiting individual HAP emissions to 10 tpy and total HAP emissions to 25 tpy.

However, synthetic minor limits must be both legally and practically enforceable, and the blanket provisions do not meet these requirements. Courts have held, and the EPA has incorporated into its guidance, that such "blanket restrictions on actual emissions" are impermissible because they are "virtually impossible to verify or enforce." Terrell E. Hunt and John S. Seitz, "Guidance on Limiting Potential to Emit in New Source Permitting" (June 13, 1989) ("Limiting PTE Memo") *quoting United States v. Louisiana-Pacific Corporation*, 682 F. Supp. 1122 (D. Colo. Oct. 30, 1987) and 682 F. Supp. 1141 (D. Colo. March 22, 1988).

Instead of such blanket provisions, legally and practically enforceable limitations to achieve synthetic minor status could be limits on production or hourly limitations. However, neither the applications nor the Draft Permit provide production limits to achieve synthetic minor requirements, and the Revised Second Application specifically states that the Facility will operate for 8760 hours per year.

Further, to the extent that EPD feels that installing CEMS will create enforceable permit conditions, this ignores practical considerations that have not been taken into account. For example, even using the Facility's extremely low emissions calculation for NO_X, it would take a very short period of time for the facility to be emitting above minor source limits if the control equipment were not functioning as promised. With the quarterly reporting provided in the permit, the facility could be operating for months at major source status before EPD would even be aware of the issue. Thus, attaching a CEMS to the units will not render the limits practically enforceable.

As a result, EPD cannot issue the final permit to the facility.

2. The provisions regarding the control equipment are neither legally or practically enforceable.

Applicant appears to rely on the Tri-Mer system to achieve the limits from the impermissible blanket provisions discussed above. In certain cases, control technology can be used to achieve synthetic minor limits. However, this is not true in this case because the startup, shutdown, and malfunction exemptions allow the Facility to operate without the control

equipment at many points; and Applicant cannot rely on an innovative control technology such as Tri-Mer without going through proper procedures.

a. Use of the control equipment is not sufficient to meet synthetic requirements because the Draft Permit exempts control equipment during startup, shutdown and malfunction time periods.

Applicant is relying on control equipment to achieve the reductions specified in the impermissible blanket provisions. *See* Revised Second Application at Project Summary pages 5-7. Such reliance is misplaced since the Draft Permit allows the Applicant to operate the Facility without control equipment during startup, shutdown, and malfunction ("SSM") time periods.

As discussed above, control equipment can be considered part of a facility's design and thus reduce potential to emit if the limit on emissions is federally and practically enforceable. *See, e.g.,* 40 C.F.R. 52.21(b)(4). When control devices are exempted during SSM, their effect on the emissions is not enforceable, and thus emissions during SSM time periods must be taken into account when determining potential to emit.

The Draft Permit allows the Facility to cease operation of the control devices during all periods of SSM. Draft Permit condition 4.2. There is no discussion as to whether control equipment will operate if one boiler is experiencing an SSM event and the other is not. *See generally* Draft Permit. There are no limitations on the number and frequency of startup and shutdown events in the Draft Permit. *See generally* Draft Permit. Further, startup and shutdown periods are not discussed in depth within the application to provide guidance as to the amount of these periods or their duration for EPD to generate a proposed permit condition on these time periods. *See generally* Revised Second Application.

As a result of these SSM exemptions, there are no enforceable limitations on the Facility's potential to emit, and it must be considered a major source. Further, since there is no information upon which EPD can base a permit condition limiting these periods, EPD cannot issue a final permit to the Facility.

b. Innovative control technologies, such as Tri-Mer, cannot be relied upon without undergoing specific regulatory procedures.

As discussed above, Applicant has chosen to use the Tri-Mer system to control emissions from its woody biomass facility. This type of control equipment is considered to be innovative technology under the CAA, and must follow applicable regulatory procedures prior to being relied upon as a control device.

40 C.F.R. 52.21(b)(19) defines innovative control technology as

> any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.

It does not appear that the proposed Tri-Mer system has been used on a biomass facility within the United States, and thus has "not been adequately demonstrated it in practice." Although a case specific BACT determination has not been done to determine whether this control equipment has a substantial likelihood of achieving the required emissions reductions, even if it had been done, the Applicant could not rely on this type of control equipment because it has not followed the required regulatory procedure.

40 C.F.R. 52.21(v)(1), adopted by reference at Georgia Rule 391-3-1.02(7)(b)(16), allows the use of innovative control technology only after following specific steps. As a preliminary step, the governor must consent to the use of the innovative control technology. Then the Administrator must find that the control technology and/or source meets a number of requirements in 40 C.F.R. 52.21(v)(1), including assurances by the owner/operator that the control equipment will achieve required levels of control; and that operation of the equipment will not cause or contribute to unreasonable risks to public health, welfare, or safety during operation.

The governor's consent has not been obtained, nor has the Director of EPD made the required findings that would allow it to consent to the use of an innovative control technology. As a result, this technology should not be employed, and the Applicant cannot rely upon it for a practically and legally enforceable emissions limitation to meet synthetic minor status.

C. Other deficiencies related to conditions in the Draft Permit.

In addition to the overarching problems with the Draft Permit and Applications discussed above, EPD cannot finalize the Draft Permit because a number of the other provisions are also problematic. Specific issues in the Draft Permit are discussed, item-by-item, below.

- *Page 1*: The control equipment is identified as a baghouse. This is not accurate, and the control equipment is properly termed a ceramic tube or candle collection device. *Compare* Second Application (describing control device as baghouse) *with* Revised Second Application at Project Summary pages 1-17 (changing use of the term baghouse to ceramic tube collector). EPD's Narrative does not discuss any differences between ceramic tube collectors and the traditional baghouse to justify applying the same treatment to this type of control device. *See generally* Narrative, Draft Permit. EPD must correct this inaccurate characterization of the control equipment, and either create specific protocols for the operation and maintenance of the ceramic tube collection system, or justify

why those procedures that are applied to a traditional baghouse collector are appropriate here.
This comment also applies to other conditions that rely on or address the particulate matter collection system, including conditions 2.1 and 4.2.

- *Page 1*: The control equipment does not include selective catalytic reduction ("SCR"), which the Facility has identified on its application as applicable control equipment. *See* Revised Second Application at SIP Permit Application, Form 3.00. Further, the process diagrams and Tri-Mer process calculations refer to a "Catox" unit. *See* Second Revised Application at Attachment 6; May 17, 2012 e-mail from Jimmy Kirkland to Renee Brown. These devices are not included in the Draft Permit, and EPD does not discuss these omissions within the Narrative.

- *Condition 2.2*: This condition finds that 40 C.F.R. subpart Dc is applicable to the Facility, based on the 93.22 MMBtu heat rating of each of the boilers. However, there is no discussion of the rated heat input of the boilers to ensure that the maximum heat input capacity is actually 93.22 MMBtu. Before applying subpart Dc in lieu of subpart Db, EPD must ensure that boilers will actually have a rated heat input capacity of 93.22 MMBtu.

- *Condition 2.3*: This condition applies the area boiler national emissions standard for hazardous air pollutants ("NESHAP") 40 C.F.R. Part 63, Subpart JJJJJJ to the facility. However, as discussed at length above, the facility is a major source for hazardous air pollutants because the Applicant's use of the control equipment is not practically or legally enforceable. As a result, EPD must apply the major source boiler NESHAP at 40 C.F.R. 63, Subpart DDDDD to the Facility, and incorporate all of the provisions of that subpart. This comment also applies to conditions 2.14, 2.15, 5.5, 6.2, 6.9, and 7.8, which rely on 40 C.F.R. 63, subpart JJJJJJ and must be revised to include the provisions of subpart DDDDD.

- *Conditions 2.5, 2.6 and 2.7*: These are impermissible blanket conditions addressing NO_X, CO, and HAPs, which have been addressed at length above.

- *Conditions 2.8 and 2.11*: These provisions require the facility to burn only wood waste, and defines that wood waste. However, there are no monitoring and recordkeeping provisions to assure that the wood that the facility is using only untreated wood. Although the Applicant has promised visual inspections will ensure this requirement is met, this does not take into account many foreseeable situations, where such inspection would be difficult or impossible. *See* Revised Second Application at Project Summary page 2. One example could be the receipt of pre-chipped wood waste.

- *Condition 2.18*: This condition requires a site-specific remediation plan. However, 40 CFR 68.12 references a risk management plan, requiring the facility to develop a worst-case scenario, methods to address it, and coordination with local response authorities. *See* 40 CFR 68.12. In addition, EPD must specify whether the Facility is under Program 1 or Program 2, which require different steps under 40 CFR 68.12.

- *Conditions 3.1 and 3.2*: These conditions set a limit of 20 percent opacity for fugitive sources, and require the Facility to take "all reasonable" precautions in order to achieve that limit. "Reasonable precautions" is too vague to be enforceable, and thus EPD must include a specific plan for addressing fugitive emissions from the non-exhaustive list of measures available at Georgia Rule 391-3-1-.02(2)(n)(1). This is particularly important in the context of this facility, as there may be significant fugitive emissions from both the milling of the Trona and the wood storage piles, which must be addressed to minimize particulate emissions.

- *Section 4*: This section addresses process and control equipment, upon which the Facility is dependent to achieve minor source limitations. Thus, having clear, enforceable conditions in this section is vital to ensuring that the Facility is operating below limits. Further, any performance of the Tri-Mer system is contingent on the Facility operating the control equipment in the manner specified by Tri-Mer, which is unclear at present. *See* Revised Second Application at Tri-Mer Performance Guarantee ("This guarantee is contingent on the system being operated as specified by Tri -Mer in the documentation to be provided as part of the project").
  In order to ensure that the Applicant is operating the Tri-Mer system correctly, EPD should attach the requirements for operation referenced by the Tri-Mer performance guarantee, and include the following additional condition within section 4: "Permitee must install and operate the Tri-Mer control equipment as specified in the attached document, attached as Exhibit [insert exhibit number]."

- *Condition 4.1*: This condition requires the Facility to perform "routine maintenance" on the control equipment. "Routine maintenance" is too vague to be enforceable. Instead, EPD should include a specific maintenance schedule, and specific steps to ensure the required maintenance is being done.

- *Condition 4.2*: This condition exempts the facility from running its control equipment during startup, shutdown and malfunction events. This provision renders any reliance on the control devices to reduce potential to emit practically and legally unenforceable. It is addressed in section B.2.a., above.

In addition, Sections 5, 6 and 7 of the Draft Permit incorporate monitoring, performance testing, and notification and record keeping requirements for the operation of the facility. As discussed in the regulatory framework section, above, this facility is considered a major source for Title V purposes. As a result, the monitoring, performance testing, and notification/record keeping requirements must be sufficient to assure that the source is complying with all of the limitations in the permit. Ga. Comp. R. & Regs. r. 391-3-1-.03(10)(d)1(i); 40 C.F.R. § 70.6(c)(1). In addition, EPD cannot issue an operating permit to the Facility until the Director has satisfactory evidence of compliance with the Act and the rules and regulations thereunder. Georgia Comp. R. & Regs. r. 391-3-1-.03(2)(c). Without adequate monitoring provisions, the Director cannot be assured that this facility is operating in accordance with its synthetic minor limits.

- *Condition 6.2*: This provision requires the Facility to perform triennial stack testing to assure compliance with the PM and opacity limitations provided in condition 2.4. Although this provision is taken from 40 C.F.R. Part 63, Subpart JJJJJJ, such infrequent monitoring is not sufficient to assure compliance with the applicable limitation, and so the EPD must supplement that monitoring to cure the deficiency. *See Sierra Club v. EPA,* 536 F.3d 673, 675 (D.C. Cir. 2008); *In re: United States Steel Corporation – Granie City Works*, Petition No. V-2009-03, Order Responding to Petitioner's Request that the Administrator Object to Issuance of State Operating Permit ("U.S. Steel"). This is especially likely in this case, where the Facility plans to inject various sorbents, which can – depending on many factors such as sorbent type, particle size, amount, and ambient conditions – potentially blind the ceramic tubes in the collector and thus, pass-through emissions of PM.
  Ideally, EPD would require PM CEMS on the facility to record continuous monitoring. However, at the very least, EPD must provide more frequent stack testing (e.g., quarterly) and require correlations to opacity during each stack test.

- *Condition 6.3*: This condition requires the facility to do initial performance testing under 40 C.F.R. 60.43c(e). As discussed above, EPD should evaluate whether the rated heat input actually shows that the facility should be regulated under 40 C.F.R. Part 60 Subpart Db. Regardless, 40 C.F.R. 60.43c(e) does not contain provisions addressing initial performance evaluation; rather, these are contained under 40 C.F.R. 60.45c. EPD must correct this in the Draft Permit.

- *Condition 6.4*: This provision requires the facility to undergo initial performance testing for HAPs. This provision uses the term "maximum operating load," which is undefined elsewhere. EPD should replace this term with "Maximum heat input capacity" and require the Facility to demonstrate this as required under 40 C.F.R. Part 60 Subpart Db, or replace this term with "maximum design heat input

capacity" and should require the Facility to demonstrate this by the procedures set forth in 40 CFR 45c(a).
Further, it does not appear that there is any requirement in the permit for ongoing monitoring of the HAPs at this facility. As the control technology that the Facility proposes to use is untried and the Facility's ability to achieve synthetic minor permit limitations are dependent on this control equipment, the Facility should be required to evaluate HAPS on a regular basis to ensure that this limitation is being met. Ideally, EPD would require HAPs CEMS for every pollutant where that is technologically feasible. However, at the very least frequent stack testing must be required (e.g., quarterly), under a variety of representative operating conditions and fuel types.

- *Condition 6.6*: This provision provides the methods for performance testing to determine compliance with the limits provided in section 2.0.

    - *Condition 6.6.k. and 6.6.o.*: These provisions contemplate the use of NCASI factors to determine compliance with certain HAPs emissions. As discussed above, the Applicant still has yet to adequately justify use of those emissions factors, and EPD cannot further endorse their use in the permit. Further, as discussed below, EPD should not rely on emissions factors to determine compliance.

    - *Condition 6.6.i.*: This condition specifies that Method 9 is to be used for determination of opacity. The Permitee can choose to use the continuous opacity monitoring system ("COMS") once a performance evaluation has been completed on the COMS. Draft Permit at Condition 6.6.i. As such visual inspections are prone to inaccuracies, the Permit must be revised to require the Facility to use the COMS to determine opacity once the initial performance evaluation of the COMS has been completed.

- *Condition 6.8*: This condition requires the Facility to complete an initial performance test within 180 days of initial startup, and then triennially thereafter. One-every-three-years is insufficient to assure compliance with yearly HAPs limitations, especially in a situation where a new control technology is being proposed for the first time. As stated above, EPD should require a CEMS for as many of the HAPs where technically feasible, or at least more frequent testing of HCl, such as quarterly for the first year and then semi-annually thereafter, to ensure that the facility is operating within its synthetic minor limits.

- *Condition 7.13*: This provision requires the Facility to submit reports on a quarterly basis to the EPD. Considering that the Facility is relying on an untried control technology to achieve its synthetic minor limits, the Facility should be

required to submit reports on a monthly basis to EPD for the first year. This would allow EPD to act promptly and pro-actively if the Facility approaches its permit limits.

- *Condition 7.16* – This condition requires the Facility to calculate its HAP emissions, and provides the methods that the Facility must use to do so. This condition is defective for a number of reasons. First, the condition only requires the Facility to calculate HAPs from the wood-fired boilers, and does not take into account HAPs from other sources, such as decomposing wood in the feed stock pile; the Permit does not include other provisions to calculate HAPs from those sources, which is required under Georgia and Federal regulations. *See* 40 C.F.R. § 63.2 ("Major source means any stationary source or group of stationary sources located within a contiguous area and under common control. . ."); *see also* Ga Comp. R. & Regs. r. 391-3-1-.02(9)(b)(15). Second, the emissions factor for HCl relies on an initial performance test to be completed within 180 days of startup without any provided additional performance testing; since the Facility is relying on an untried control technology to control HCl emissions, the Draft Permit must include other methods to ensure that the HCl emitted remains at that same emission level. *See* Condition 6.8. This is also true for the emissions factors for acrolein, arsenic, benzene, chromium. Third, EPD should not ultimately rely on any emissions factor for compliance not specifically created at this Facility, including AP-42 factors, because these are an average of various facilities and will not demonstrate that this facility is actually emitting certain amounts; again, since the Facility is using an innovative control technology, it is even more likely that this Facility's emissions will not comport to the emissions factor. *See* Introduction to AP-42 at Introduction, page 2 ("Use of these factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA."). Instead, the Facility should test for all HAPs included in Attachment 7 to the Revised Second Application, under a variety of conditions.

D. EPD should not issue another air permit in this area because of cumulative air pollution effects.

1. EPD should not permit another facility in this area because it will further contribute to $PM_{2.5}$ pollution.

As discussed above, DeKalb County is currently designated as nonattainment for the 1997 $PM_{2.5}$ NAAQS. *See* EPA List of Currently Designated Nonattainment Areas for All Criteria Pollutants as of December 14, 2012, *available at* http://www.epa.gov/oaqps001/greenbk/ancl.html (last accessed December 20, 2012).

Although Georgia EPD has initiated procedures to redesignate the area to attainment under the 1997 $PM_{2.5}$ NAAQS, EPD recently announced a new $PM_{2.5}$ NAAQS. This new annual standard is 12 micrograms per cubic meter. *See* National Ambient Air Quality Standards for Particulate Matter, Final Rule, December 14, 2012, *available at* http://www.epa.gov/airquality/particlepollution/2012/finalrule.pdf. The monitor closest to the proposed Facility shows that the area has $PM_{2.5}$ concentrations above this level.

Adding additional sources emitting large amounts of $PM_{2.5}$ in this area has a significant likelihood of prolonging the Atlanta area's nonattainment status. EPD should not issue a permit to a facility that has the potential to emit major amounts of $PM_{2.5}$ in this area.

2. The Facility's proposed location is within an environmental justice area that is already disproportionately impacted by pollution.

EPD should consider the environmental impact that this facility would have on residents in Lithonia. This plant would be located in an area that is already burdened by pollution: seven air pollution sites, five water pollution sites, two Toxic Release Inventory ("TRI") sites, one Superfund site and three operating landfills exist within a three mile radius of the proposed Biomass plant.

Furthermore, Lithonia's population is more than 85 percent African American. CensusViewer, Population of the City of Lithonia, Georgia, *available at* http://censusviewer.com/city/GA/Lithonia (last accessed December 24, 2012). The importance of considering race should not be underestimated as pollution from this facility and others can impact minorities at a higher rate than the general population. Asthma occurs disproportionately among African Americans in Georgia, who are two to three times more likely than whites to suffer asthma-related deaths. Centers for Disease Control, Asthma: United States 1980-1990, *Morbidity and Mortality Weekly Report*, 39 (1992), p. 733-735.

It is well established that fine particle pollution from power plants, including biomass facilities, have been linked to asthma attacks and premature deaths. Clear the Air, Dirty Air, Dirty Power, Mortality and Health Damage Due to Air Pollution from Power Plants, June 2004. These fine particles are inhaled deeply into the lungs, affecting both the respiratory and cardiovascular systems. Black Leadership forum, et al., Air of Injustice, African Americans and Power Plant Pollution, October 2002, *available at* http://energyjustice.net/files/coal/Air_of_Injustice.pdf. (last visited December 25, 2012).

GEP is representing that the proposed Facility will be a synthetic minor source, which does not require that a cumulative effects analysis be conducted in the permitting process. And the proposed technology to be used in this operation has not yet been used in the United States. Because of the impact that additional air pollution would have on an already pollutant overburdened community the biomass plant should be required to meet the more the stringent

standards of a major source air permit applicant. Also, it should be taken in to account that at the public hearing held on December 17, 2012, representatives from the community vehemently opposed the EPD's granting of this air permit.

The EPA has made environmental justice a priority throughout all of its departments. U.S. Environmental Protection Agency, Seven Priorities for EPA's Future, http://blog.epa.gov /administrator/2010/01/12/seven-priorities-for-epas-future/ (last visited December 24, 2012). They have launched Plan EJ 2014, providing a roadmap for the agency to integrate environmental justice considerations into its programs at various levels. See U.S. Environmental Protection Agency, Plan EJ 2014, available at: http://www.epa.gov/enviromentaljustice/ resources/policy/plan-ej-2014/plan-ej-2011-09.pdf.

EPD, as the agency that conducts more than 90% of environmental permitting in Georgia, should be taking similar steps to consider demographic factors, such as race and income, to ensure that minorities and low-income resident neighborhoods don't become the dumping grounds for our state.

The EPD should consider these factors before issuing this permit.

We look forward to receiving the Department's response to our comments and to receiving notice of the Department's final permit decision.

Respectfully submitted,

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