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VIA ELECTRONIC MAIL

July 5, 2016

Julie M. Churchill
Regulatory Assistance - Small Business Ombudsman
Department of Environmental Protection
Office of Innovation & Assistance
17 State House Station
Augusta, ME 04333-0017

**Re: Legal and Technical Comments on Draft Solid Waste and Air Emission
Licenses issued to Fiberight LLC and Municipal Review Committee, Inc.**

Dear Julie:

These comments are provided by Penobscot Energy Recovery Company ("PERC") regarding the Solid Waste and Air Emission License applications (the "Applications") pending with the Department for permits to construct and operate the Fiberight facility in Hampden, Maine (the "Fiberight Project") and the draft Solid Waste License and Air Emission License issued on June 13, 2016.

SUMMARY

- The MRC/Fiberight Solid Waste License application must be denied on the basis that they do not provide information sufficient to even be considered complete for processing, much less for approvals. The title, right or interest ("TRI"), technical capacity and financial capacity showings set forth in the Applications are all deficient and incomplete.
 - The Applications must be denied on the basis that neither applicant has shown any commitment of funds necessary to design, construct, operate and maintain the proposed facility.
 - The Applications must be denied on the basis that MRC has not demonstrated that it has the authority 1) to take on the joint and several liability associated with being a co-licensee for the operation of a facility

over which it will have no management authority, or 2) to expend member funds for the purchase and improvement of real estate for the Fiberight facility. MRC's lack of authority causes both its TRI and financial capacity demonstrations to fail.

- The MRC/Fiberight Solid Waste License application must be denied on the basis that the Fiberight Project directly contravenes the Solid Waste Management Hierarchy and other similar legislative directives to reduce the amount of waste delivered to solid waste processing facilities, and to segregate and reuse or recycle organics.
 - The proposed process requires that 1) the MSW delivered to the Fiberight facility contain organics; 2) that Fiberight may dictate the extent to which organics management programs may be expanded or newly implemented by participating towns; and 3) requires that all waste be landfilled during the period between the expiration of the PERC contracts and Fiberight's Commercial Operation Date – during that time period, MRC communities would bear responsibility for transportation costs on top of the tipping fee.
 - The proposed facility would use untested technology which has little evidence of commercial scalability. Any delays or miscalculations would lead to the landfilling of a large percentage of the MSW. Even the Virginia demonstration plant has not successfully used its demo-scale process to reduce the volume of material being landfilled beyond a basic recycling program.
 - The volume of material now slated for landfill, even without delays or miscalculations warrants re-opening the landfill's public benefit determination to review the public benefits related to waste disposal contemplated under Fiberight's proposal.
- The Applications must be denied because the application materials have significant internal inconsistencies that have not been addressed by the Department in its draft licenses – it is virtually impossible to discern the specifics of MRC and Fiberight's proposal, and therefore equally impossible to conclude that their proposal satisfies the requirements of Maine's environmental laws.
- The MRC/Fiberight Air Emission License application must be denied, because the post-hydrolysis solids ("PHS") that are to be burned in the facility are waste. Without an NHSM determination, the default is that the material must be treated as waste – Fiberight was never able to obtain an NHSM determination from the EPA, because it failed to respond to requests for additional information necessary to complete that determination. This creates a cascade effect on air licensing – will this be a major source? Do Commercial and Industrial Solid Waste Incineration ("CISWI") regulations apply? Is this a private, commercial solid waste

disposal facility in contravention of 38 M.R.S. § 1310-X? Further, Fiberight has made conflicting representations as to the amount of PSH intended for combustion, which are not reconciled in the draft air license.

- PERC requests that, at a minimum, the Department hold a public hearing with regard to the Applications in accordance with 06-096 CMR Chapter 2.7.B¹ in the face of the substantial and critical conflict in the technical evidence in the record that could be clarified by a hearing.

BACKGROUND

The Penobscot Energy Recovery Company was formed in 1983 to develop and operate a 25 MW, 1000 ton-per-day waste to energy facility capable of processing 300,000 tons of municipal solid waste each year. PERC's process generates electricity and also reduces the volume of MSW to be landfilled by 90%. The municipal members of MRC actually own 23% of the PERC facility as limited partners.

In 2018, PERC's current Power Purchase Agreement ("PPA") expires, which will require the negotiation of a new PPA. It is legally possible for the MRC/PERC partnership agreement to be extended, along with a renegotiation of the waste supply contracts between the MRC communities and PERC.

MRC has instead counseled its membership to part ways with PERC, and to partner with Fiberight on the grounds that it will be less costly to construct the new Fiberight facility in Hampden, a conclusion that is based on information that is not in the public record. PERC, as a longtime member of this community and operator of a waste-to-energy facility, is concerned about the technical and financial viability of Fiberight's proposal and its impact on participating municipalities and the environment.

COMMENTS ON MRC/FIBERIGHT APPLICATION MATERIALS

I. The Applications must be denied for failure to demonstrate TRI, technical ability or financial ability.

MRC and Fiberight are co-applicants on both the Solid Waste and Air Emission license applications. As such, they are both taking on joint and several liability for the proper design, construction, operation and maintenance of a solid waste processing facility. They must both, therefore, have 1) sufficient rights in the real estate, 2) contracted with technical experts who know how to execute the proposed process, and 3) access to sufficient funds to design, construct, operate, maintain and close the Fiberight Project. These are reasonable,

¹ "The Department will hold a hearing in those instances where the Department determines there is credible conflicting technical information regarding a licensing criterion and it is likely that a hearing will assist the Department in understanding the evidence."

basic requirements to safeguard the citizens from having to bear the burden of issues that might arise from technical or financial incapacity. Neither MRC nor Fiberight have demonstrated any of the above.

A. Title Right or Interest

Neither MRC nor Fiberight have sufficient TRI in the project property to support the issuance of a license.

06-096 CMR Chapter 2 requires that an applicant demonstrate sufficient title right or interest (TRI) in all of the property on which the project is to be developed. Where an option is the mechanism for TRI, Rule Chapter 2 requires that the option “give rights to title, or a leasehold or easement of sufficient duration and terms to permit the proposed construction and use of the property including closure and post closure care, where required[.]”

1. MRC

In order to demonstrate TRI, MRC provided a signed option agreement for real estate. However, MRC has not provided any authority under which it might exercise that option. In order to exercise the option, and then to improve the property with access and utilities, MRC is proposing to use a portion of the \$25M Tipping Fee Stabilization Fund. That fund is owned by its Equity Charter Municipalities, and was created in order to assist participating municipalities with the cost of increases in tipping fees.

It is PERC’s understanding that, while MRC amended its by-laws to allow the Board to investigate options for post-2018 waste disposal, funds may only be expended towards MRC’s specified duties and functions, which are listed in detail within the by-laws; none of said duties relate to the purchase of real estate for the construction of a new facility. It is PERC’s understanding that the Board of MRC has requested by-laws changes to allow it to participate in the development of the Fiberight project, but those changes have not been approved by its membership. Rather, as each individual town signs a new Joinder Agreement, it is independently agreeing to allow MRC to act in a manner that is inconsistent with the by-laws. This is not legally sufficient to allow MRC, in advance of an appropriate vote, to act as developer and commit the Tipping Fee Stabilization Fund to a purpose not legally approved. MRC is acting outside the scope of its statutory authority, and the authority bestowed upon it by its members.

MRC is a non-profit corporation created to ensure “long-term, reliable, safe and environmentally sound methods of solid waste disposal at a stable and reasonable cost” for its members. Its published by-laws describe all of the functions and duties MRC undertakes to effectuate that mission, and further describes the administrative fees² that each member

² Note that these fees are based on tonnage, and with the reduced tonnage currently contemplated, MRC’s fees will go down significantly.

must pay to support MRC's functions and duties, all of which, incidentally, relate to MRC's relationship to PERC.

MRC has signed an option to purchase the real estate proposed for the Fiberight Project. It has not, however, demonstrated that it has the legal authority necessary to exercise that option.

2. Fiberight

Fiberight has no real estate rights whatsoever, and according to the pre-application notes submitted with its application, is well aware of this. According to those notes, MRC joined the application in order to boost Fiberight over the TRI hurdle. However, where this is not a joint venture entity, and both applicants are legally distinct, Fiberight does, in fact, need TRI. MRC's option has not been exercised, it has not been assigned, and there is no signed lease between the parties. The entity actually intending to develop the solid waste facility has not demonstrated title, right or interest in the property proposed for development. Without an assignment of the option or an executed lease to demonstrate that Fiberight has a reasonably viable interest in the real estate, the application must fail.

B. Technical Ability

Neither MRC nor Fiberight has the technical ability to perform their proposed project. MRC's expertise in obtaining solid waste is not sufficient to grant it a license to design, construct, operate and maintain a solid waste processing facility.

1. MRC

The application materials have identified MRC's expertise in managing the "affairs and concerns of their 187 municipal members." While MRC has experience in managing the solid waste agreements between its members and PERC, those skills are not analogous to the activities for which the MRC currently seeks a permit – the design, construction, operation and maintenance of a solid waste processing facility. MRC simply has no relevant technical experience.

2. Fiberight

Fiberight also has no technical experience in their proposed process. There are a number of facts that demonstrate that they are ill-prepared to take on a project of this magnitude with technical competence:

- The proposed process involves untested technology – there is no facility anywhere in the world that employs the Fiberight enzymatic hydrolysis technology beyond a small demo plant size;

- Fiberight's Virginia demonstration plant has failed to produce reasonable indications of commercial scalability - in 2015 a grand total of 90 tons of waste was processed in its Virginia demonstration facility, and of that 90 tons, 14 tons were recycled and 76 tons were landfilled. They were unable to reduce the volume of waste through their digestion process.
- It took almost six months to obtain a basic data set on the PHS, which, upon review, has significant gaps and unclear sampling and handling protocol.
- Fiberight's NHSM non-waste determination was never resolved because Fiberight never provided the EPA with the information it requested.
- The wastewater discharge anticipated from the facility has increased from 36,000 gpd to 150,000 gpd, with no other correlating process changes described;
- A Fiberight affiliate is party to a 2010 Consent Agreement with EPA Region 7 for violations of the Clean Water Act (which, pursuant to 38 M.R.S. § 1310-N(7), may be an independent basis for permit denial, even if it had been disclosed).
- Fiberight's Iowa facility that it intended to be analogous to the Hampden facility was recently denied its permits.
- Although data from the PERC facility is available, Fiberight did not provide that data in its application. Where Fiberight has had access to over 100 tons of waste from PERC, i.e. the actual waste Fiberight intends to process, it is inconceivable that the data they have finally provided was generated through processing waste from elsewhere in the country. PERC is willing to supply additional waste for testing by Fiberight to ensure the accuracy of the results upon which any Department licenses are based.

More concerning than all of the above, and directly relevant to the Department's draft license, the following is a summary of serious substantive technical inconsistencies that are a representative sample of errors and/or inconsistencies propagated through the application process and were not resolved in the draft license:

The Department's Solid Waste Finding of Fact 3 at Page 3 states:

Fiberight anticipates between 70 % and 80% by weight of all incoming MSW will be converted to renewable fuels or recycled, and the remaining 20% to 30% by weight will be process residues to be disposed off-site.

This finding is based on the June 2015 submittal for the solid waste processing facility application, which does state that approximately 80% of the incoming waste would be converted to renewable fuels with the remaining 20% being some mix of recycled materials and process residues. However, as set forth below, that data provided does not support this statement.

Tables 1 and 2, located at the end of these comments, describe the various changes in material flow that have occurred over the period. Most noteworthy of the changes of the period are the facts that:

- a. At best, about 56% by weight is proposed to be converted to bio-gas and post-hydrolysis solids, (PHS) which is substantially less than the 70-80% in the draft license.
- b. Including the purge from the anaerobic digester, the amount of residues disposed off-site (via landfill or directed to the Bangor POTW) is no less than 43% by weight, which is substantially more than the 20-30% in the draft license.
- c. There is an issue with the handling of the purge from the anaerobic digester in the mass balance dated 2/29/2016 submitted to the Department on March 30, 2016 as the mass balance, does not balance. The purge was increased from 110 tons/day to 230 tons/day. The purge effectively disposes of waste off-site via the Bangor POTW. Given this new information, the processing facility may, in fact, recycle or convert to fuel less than 50% of the incoming waste.
- d. There was a significant increase in the quantity of post-hydrolysis solids (PHS) generated from 160 tons to 246 tons (270 tons including ash content). This increased PHS quantity does not harmonize with the air emission license application materials whereas the boilers are operated for fewer hours with a smaller emissions footprint as less PHS is combusted.

These inconsistencies in the application materials that have been propagated, whole or in part, through the draft license, should be addressed and resolved by the Department.

The persistence of such inaccuracies throughout the application materials does nothing to demonstrate technical competence. Fiberight claims that its technical ability comes from its successful operation of its similar Virginia demonstration plant. The facilities referenced are not similar, and Fiberight has not demonstrated any technical ability to perform the proposed process. Where the Virginia facility is not making digestate, is not reducing the volume of waste, and does not have a biomass boiler, how does that the fact that the Virginia team will be running the Hampden facility demonstrate technical capacity? In addition, the CVs provided for Fiberight's technical ability submission are of executives who appear to specialize in marketing and business development. Who is the plant manager? Who is the environmental manager? This utter lack of technical ability is illustrated by the inconsistencies identified above. This simply cannot be sufficient to satisfy the Department's requirement that the applicant have the technical ability to design, construct, operate and maintain the facility in compliance with applicable law.

C. Financial Ability

The Department does not have sufficient information to determine what funds are necessary for the Fiberight Project, nor does it have sufficient information to conclude that there is

money available for this project. Even the draft Solid Waste license is starkly drafted in this regard.

In its Solid Waste Findings of Fact, Paragraph 6, the Department recites that sufficient evidence of the financial ability to purchase the property and place roads and utilities has been shown – and yet the application under consideration was **not** for the purchase of property and the placement of roads and utilities. In what PERC believes is an utterly unprecedented move, the Department makes no finding whatsoever about financial ability to construct and operate a solid waste processing facility, which is the application under consideration. If no findings can be made as to financial ability – just reasonable access to funds, not a completed financing transaction – then the Department must deny the application.

Pursuant to 06-096 CMR Chapter 400, the General Provisions of Maine’s Solid Waste Management Rules, an applicant must demonstrate the financial capacity to construct and operate the proposed facility in compliance with applicable law. The submission requirements are twofold: (i) an accurate cost estimate for the design, construction, operation and maintenance of the facility, and (ii) evidence that funds will be available for those activities. The MRC/Fiberight Solid Waste license application fails to satisfy either prong of the financial capacity requirement.

1. The cost estimates provided are not accurate.

In addition to a general sense that Fiberight’s cost estimates are missing a meaningful amount of relevant detail, those estimates have remained mysteriously unchanged, as set forth in Table 3, despite some significant changes to the proposed process.

The Department’s Finding of Fact 6B states:

Current cost estimates for portions of the development project for which Fiberight will be responsible for include site development, foundations, concrete and building construction; machinery and equipment; steel, mechanical and electrical installation; and engineering, permits and project management. Total estimated capital costs for which Fiberight is responsible for is \$66,976,786. Fiberight will also be responsible for the following estimated expenditures: annual operational costs; annual maintenance costs; and facility closure costs for a total cost of \$12,700,000.

That finding is simply a recitation of the cost estimates contained in the initial June 2015 application. However, several substantive changes to Fiberight’s proposed project have been submitted to the Department, with no parallel changes to Fiberight’s cost estimates:

- a. Operating costs have not changed even with increase in water usage from 36,000 gal/day to 150,000 gal/day, and associated wastewater disposal costs.

- b. Capital costs have not changed even after proposed installation of powdered activated carbon for mercury control (PAC).
- c. Capital costs have not changed even after proposed installation of dry sorbent injection (DSI), and likely need to re-size the baghouse for additional volumetric airflow and particulate loading.

Capital equipment costs alone for the PAC and DSI would typically run anywhere from \$4.6-\$7.6 million, which would make the existing project estimates substantially inaccurate. Furthermore, the limited quotes that do exist for portions of the project are presented in a way that calls into question their accuracy, for example:

- a. Quote from BACT revision dated 12/14/2015 quoted \$850,000 for the odor scrubber system (uninstalled and expired quote).
- b. The financial breakout in the letters of interest from Covanta and others, dated December 18, 2015, for “Emissions & Odor Control System” specify \$848,583.

Now, and outside the licensing process, the applicant has cited wholly different project cost data, including the need for project sufficiency insurance.³

Given all the above, the applicant has plainly failed to provide accurate cost estimates for the facility by any metric. Given the one-year pendency of this application without submission of an accurate, itemized, and up-to-date budget that allows the Department to assess what funds are necessary for this project, the application should be denied.

- 2. Neither MRC nor Fiberight have demonstrated access to the funds necessary to design, construct, operate and maintain the proposed facility in compliance with applicable law.

As mentioned above, MRC has not demonstrated its authority to expend the \$5 Million associated with its role as landlord. More importantly, while both MRC and Fiberight are required to have the financial ability to design, develop, operate, and maintain the proposed facility, neither of them do. MRC, despite its position as a co-applicant, *does not even attempt* to demonstrate access to the funds necessary to design, construct, operate or maintain the proposed facility. And Fiberight’s attempts to demonstrate financial ability are a remarkable deviation from the normal standard of submission the Department has historically demanded of applicants.

Where actual financing is not available until after permits are issued, 06-096 CMR Chapter 400 requires the applicant to provide a letter of “intent to fund” from the appropriate funding institution, and any permit would be conditioned upon demonstrating actual

³ http://www.hampdenmaine.gov/vertical/sites/%7B1FCAF0C4-5C5E-476D-A92E-1BED5B1F9E05%7D/uploads/160602_MRC-pro-forma-review-June2016-FINAL.pdf

financing to the Department's satisfaction prior to project construction. The documentation submitted by Fiberight absolutely does not satisfy the regulatory requirement that Fiberight have access to the funding necessary for the design, construction, operation, maintenance and closure of the proposed facility.

Fiberight has provided a vague letter of interest from Covanta Energy LLC (which, incidentally, does not flow through to MRC as the co-applicant), and Fiberight has also provided the financials from Covanta Holding Corporation (which has not expressed interest in the project). Neither Covanta Energy nor Covanta Holding have demonstrated any intent to fund the Fiberight project. Fiberight has not put anything else in the public record related to financial ability. According to the application materials, Fiberight also submitted confidential letters from a national energy utility affiliate and a private equity and venture capital firm, which are still subject to "due diligence." As described, these letters appear to be letters of interest, not letters of intent to fund.

With regard to MRC, while it is not a true partner in the Fiberight Project (MRC is not going to design, construct, operate or maintain a solid waste facility), they are liable as a co-applicant and bear responsibility to the Department and the public for exactly that – the design, construction, operation and maintenance of a solid waste facility. This is troubling for three reasons.

First, this is clearly outside of MRC's statutory authority, by which they are incorporated as a regional association under 38 M.R.S. 1304-B, 5-A. According to the statutory authority under which MRC is organized, and according to its by-laws, it is to act as a watchdog to assist its member municipalities, and yet it is acting as a developer, which is an entirely different function. Query why MRC has not observed for its members any of the risks and deficiencies outlined in these comments.

Second, to the extent the financial ability of, or liability for, this project rests in any fashion on the MRC, it should be noted that MRC is not, in and of itself, a creditworthy entity – their funds come from dues, which are calculated based on tonnage. As tonnage decreases, as appears to be the case here, so do the dues. Unless MRC has unfettered authority to use these municipal funds held in trust, they have no equity or authority by which to pursue this project

In short, MRC has acted outside the scope of its authority to co-apply with a private solid waste facility developer, and in so doing, has put itself and its member municipalities at significant risk. If MRC does not have the requisite authority, both its TRI and financial capacity submissions are, for all practical purposes, void.

II. The Air Emission License application should be denied, because the recent data submitted indicates that the facility must be regulated under CISWI, and is a major source, not a minor source.

Although Fiberight may potentially be eligible for approval as a major source, Fiberight has not submitted an application for a major source permit. Rather, they have applied for a minor source permit. The Department must act on the application in front of it, and because Fiberight is not eligible for a minor source permit, the application should be denied.

In addition, it is PERC's understanding that the EPA has not been provided with the information necessary to determine whether the post-hydrolysis solids meet the legitimacy criteria set forth in federal regulations; the regulations require that the default position is to handle material as waste. The data submitted in the June 2016 data submission further calls into question the extent to which the PSH can satisfy the legitimacy criteria, despite Fiberight's initial NHSM self-certification, and must therefore be regulated as waste under the CISWI regulations.

The Department made the following Applicability Determination at Page 16 of the draft air emissions license:

However, Fiberight maintains that PHS should not be considered a waste, asserting it meets the legitimacy criteria for non-hazardous secondary materials set forth in 40 CFR Part 241.3, Standards and procedures for identification of non-hazardous secondary materials that are solid wastes when used as fuels or ingredients in combustion units. The qualification of fuels as non-waste per this section is intended to be a self-certification, meaning no response from EPA is required. However, in 2013 Fiberight submitted their self-certification to EPA and requested a determination on whether EPA is in concurrence that the PHS should be classified as a non-waste. Although there have been several exchanges between Fiberight and EPA and requests for additional information, to date EPA has not issued any decision.

Fiberight has requested that their license be processed based on their self-certification that the PHS is a non-waste. Fiberight acknowledges and understands that relying on their self-certification puts them at significant risk of not being able to operate in compliance with Federal rules should EPA make a determination that PHS does not meet the requirements to be considered a non-waste.

The Non-Hazardous Secondary Material (NHSM) Rule at 40 CFR Part 241 et. seq. is administered by the United States Environmental Protection Agency (EPA) for the purpose of identifying solid wastes as fuels or ingredients in combustion units under section 1004 of the Resource Conservation and Recovery Act and section 129 of the Clean Air Act. The Department, for the purposes of administering its air emission licensing program by the Air

Bureau does not have delegated authority for any program except those that are federally enforceable. Such programs are limited to the authority granted by the EPA and described in 06-096 CMR Chapter 100, *Definitions*. It is questionable whether the Department has the authority to administer the NHSM program as it relates to evaluating self-certifications under RCRA.

Nonetheless, it is a reasonable read of 40 CFR Part 214.3 that the sample of the candidate material would be representative of material that would be combusted at the proposed Hampden facility, especially in light of the fact that the applicant purports to have a scaled down demonstration project in Lawrenceville from which this representative sample could be constructed.

The applicant initially cited an NHSM submitted in 2012 to EPA Region 7 for the now defunct Blirstown, Iowa cellulosic ethanol plant.⁴ On January 20, 2016, Deborah Bredehoft of EPA Region 7 confirmed that this requested information had not yet been received.⁵ To this date, Jesse Miller at EPA (Washington, DC) confirms that Fiberight has not supplied the appropriate information and Fiberight has dropped this NSHM request.⁶ After a request by the Department to the applicant for additional information to support its self-certification, a set of analyses of the PHS was sent to the Department on June 6, 2016.⁷

EPA specifies that “The *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium*, also known as *SW-846* or the Compendium, is EPA’s official collection of methods for use in complying with the Resource Conservation and Recovery Act (RCRA) regulations.⁸ The NHSM Rule is a RCRA regulation.

No sampling and analytical plan or chain-of-custodies were submitted by the applicant, both of which are typical requirements for samples employed for regulatory compliance purposes as required by EPA’s SW-846.

For this reason alone, the analytical results should be rejected, the NHSM self-certification from which it is based rejected, and the draft air emission license be rejected as the applicant has not proved the PHS material is a non-waste.

Nonetheless, presuming that the PHS analyses should be considered for further evaluation under NHSM, the following issues are noted and should be considered by the Department:

⁴ http://www.maine.gov/dep/projects/mrc/applications/04-2015-06-24-MRC-Fiberight_Air%20Emissions%20License%20Application.pdf

⁵ January 20, 2016 e-mail from Deborah Bredehoft, Environmental Engineer EPA Region 7 to Keith Bowden.

⁶ June 24, 2016 telecon from Jesse Miller, EPA to Keith Bowden.

⁷ <http://www.maine.gov/dep/projects/mrc/documents/2016-06-06%20PHS%20Briquette%20Analysis%20w%20ultimate%20analysis.pdf>

⁸ <https://www.epa.gov/hw-sw846/basic-information-about-how-use-sw-846>

- a. Only one sample has a known sample date and it was a grab sample. Grab samples in heterogeneous materials typically display significant variability.
- b. Apparently 3 different types of material were analyzed, and it is unclear which material, if any, would be combusted by the applicant:
 - i. Sludge Cake
 - ii. Pellets
 - iii. Briquettes
- c. Not all parameters were analyzed as required against EPA's *Contaminant Concentrations in Traditional Fuels: Table for Comparison*, November 29, 2011^{6,9}
- d. For the parameters analyzed, Lead (Pb) exceeded the allowable threshold for a non-waste determination. A maximum value of 1090 mg/Kg, and an average of 375 mg/Kg were noted, which exceed both the high range of 340 mg/Kg, and the average of 4.5 mg/Kg for wood and biomass materials in EPA's *Contaminant Concentrations in Traditional Fuels: Table for Comparison*.
- e. Some parameters were "backfilled" from ash data. This is inappropriate for volatile and semi-volatile metals such as Mercury, Cadmium, and some Lead alloys given that the incineration temperature (typically 750 degC/1382 degF) could allow some metals to volatilize and skew the backfilled value toward a lower result.
- f. A high Sulfur value was discarded as an outlier without any statistical justification, which is disallowed.
- g. Assuming that the samples are representative, the analyses exhibit excessive statistical variability and should be normalized accordingly prior to evaluation. For example, with respect to Lead (Pb), the results, in mg/Kg, are 5.0, 39.5, 1.6 (ash-derived), 741 (ash-derived) and 1090. The mean for the sample set is 375.42 mg/Kg while the standard deviation is 508.45 mg/Kg and variance is 258,516.98 mg/Kg! Since the sample mean greatly exceeds the variance, any statistical evaluation would need to be conducted on normalized data, or more likely, the sampling method would need to be re-evaluated to reduce the sample variance to acceptable levels.

III. The Department should exercise its authority to hold a hearing to resolve the conflicting technical information in the record.

Over the course of the last several weeks, quite a lot of technical information has been placed in the record. New process information has been submitted by the Applicants and outstanding technical questions posed by the Department have now been responded to by the public and by the Applicants. Although there may not have been credible conflicting technical information in the record at the time the Department accepted direct public hearing requests, there is now such conflicting information that warrants a hearing.

⁹ https://www.epa.gov/sites/production/files/2016-01/documents/nhsm_cont_tf.pdf

Department Rule Chapter 2 designates 20 days from the acceptance of the application as complete for processing in which members of the public may request a hearing. However, it also authorizes the Department, in its discretion, to hold a hearing on an application where there is “credible conflicting technical information regarding a licensing criterion and it is likely that a hearing will assist the Department in understanding the evidence.” 06-096 CMR Chapter 2.7,B.

Here, where much of the technical information related to the Fiberight Project was submitted well after the 20 day request period, and where the subsequent submissions did, in fact, result in conflicting technical information, PERC encourages the Department to exercise its discretion to hold a hearing to review and clarify the information in the record.

By way of example, the extent to which the technology being proposed is scaleable is a significant question – augmenting the anaerobic digestion process with enzymes has never been attempted at a commercial scale. The review performed by the University of Maine is not a resounding endorsement of the technology, and the demonstration-scale process in Virginia is not successfully processing waste into the post-hydrolic solids they propose to create and incinerate in Maine. It is therefore not clear whether the solid waste received at the facility would be chemically altered to create the PHS for incineration, or whether the recyclables would be sorted and the remainder of the materials directly landfilled, as is the case at the Lawrenceville, Virginia demonstration plant.

There also appears to be a significant difference of understanding over the technical requirements for a minor source versus a major source air emission license, whether the materials need a Beneficial Use License under Chapter 418, and whether the material burned should be regulated as a fuel or a waste under federal air regulations.

A hearing would also assist the Department and the public in understanding the consequences of the meaningful changes the applicants have made to their proposal since the application was filed, as detailed above. A hearing would assist in expediting the dissemination and clarification of all relevant and necessary information to the Department so that it may accurately understand Fiberight’s most current thinking on how it intends to configure this facility, exactly what size and type of facility is being proposed, and to clarify the technical data before determining whether that facility is eligible for environmental permits under Maine law.

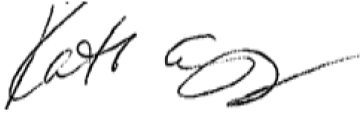
For all of the reasons set forth herein, PERC requests that the Department issue an order denying the permit applications based on the fact that the Applicants have not met their burden to demonstrate that they satisfy the relevant permitting requirements.

In the alternative, PERC requests that the Department hold a hearing to clarify the conflicting technical data that the Department must understand in determining whether the

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Applicants have the ability to submit information that will demonstrate that they satisfy the relevant permitting requirements.

Sincerely,

A handwritten signature in black ink, appearing to read "Kath A. Joyce", with a long horizontal flourish extending to the right.

Katherine A. Joyce

KAJ/ree
Enclosures

TABLE 1 MASS BALANCE SOLID WASTE

Fiberight Mass Balance Summary	12/14/2015				1/29/2016 ²				2/29/2016 ³			
	Total	Recovered ¹	Disposed ¹	Purge	Total	Recovered	Disposed	Purge	Total	Recovered	Disposed	Purge
Stream												
Bulkies - Prim Sort	7.50	7.50			7.50	3.00	4.50		8.00	3.00	5.00	
OCC - Prim Sort	15.90	15.90			15.90	15.90			18.00	18.00		
Textiles - Prim Sort	6.70	6.70			6.70		6.70		7.00		7.00	
Trash - Primary Sort									6.00	3.00	3.00	
Grit/Glass- Sec. Sort	23.00		23.00		23.00		23.00		29.00	29.00		
Grit - Wash	3.70		3.70		3.70		3.70		4.00	4.00		
Fe - MRF Sort	14.20	14.20			14.20	14.20			14.00	14.0		
Non-Fe - MRF Sort	6.10	6.10			6.10	6.10			6.00	6.00		
Film - MRF Sort	33.30	33.00			33.27	33.27			33.00	33.00		
Trash - MRF Sort	141.2		141.20		141.2		141.20		120.0		120.00	
HDPE - MRF Sort	7.30	7.30			7.28	7.28			7.00	7.00		
PETE - MRF Sort	6.00	6.00			6.00	6.0			6.00	6.00		
Mixed Plastics - MRF Sort	8.30	8.30			8.32	8.32			8.00	8.00		
Comb DAF Residues - AD Feed	53.00	53.00			52.00	45.00	7.00		58.00	40.00	18.00	
Bio-gas - AD Plant	57.00	57.00			57.00	57.00			58.00	58.00		
AD Effluent	110.00			110.00	110.00			110				230.00
Combined Ash Bolier	5.90		5.90		5.90		5.90		24.00		24.00	
PHS	160.00	160.00			154.07	154.07			246.00	246.00		
Totals	659.10	375.00	173.80	110.00	652.14	350.14	192.00	110.00	652.00	475.00	177.00	230.00
Percent to Renewable Fuels		32.9				32.4						
Percent Recycled		24.0				21.3						
Percent landfilled		26.4				29.4						
Percent to Purge/POTW		16.7				16.9						
Disposed off-site		43.1				46.3						
Percent (Total)		100.0				100.0				135.3		
Percent to fuel or recycled		56.9				53.7						

TABLE NOTES:

¹ ASSUMED RECOVERY/DISPOSAL FROM PROCESS BLOCK DIAGRAM:

<http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/Block%20Diagram%20Mass%20Balance.pdf>

²

<http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/Maine%20Mass%20Balance%20Summary%20January%202016.pdf>

³ LETTER RESPONSE 3/30/2016, PP 30-31 <http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/2016-03-30%20Response%20Letter%20Solid%20Waste%20Revised.pdf>

TABLE 2 AIR EMISSION LICENSE MATERIALS

Date	Source	Blr A Hrs	Blr A CO	Blr B Hrs	Blr B CO	Total CO	CO EF	PHS	PHS max	PHS HHV dry
						tons	lb/MMB TU	tons/hr per	tons/yr	BTU/lb
June 2015	Initial License Application ¹	7920	41.91	7920	41.91	83.82	0.22	5	79,200	
9/22/2015	PTE Fiberight Rev 1 ²	7920	41.91	7920	41.91	83.82	0.22			
	License Application (Rev) ³							5	79,200	
12/14/2015	PTE Boiler 4 ⁴	8322	44.78	8322	44.78	89.56	0.22			
	Revised BACT ⁵							5.62	93,539	
4/11/2016	Revised PTE ⁶	8322	43.59	8322	43.59	87.18	0.22	5.62	93,539	8,464
6/2/2016	Revised PTE ⁷	8322	43.59	4750	24.9	68.49	0.22			8,464
	Revised BACT ⁸							5.62	73,465	
6/13/2016	Draft Air License ⁹						0.22	5.1	80,000	8,100

TABLE NOTES:

¹ http://www.maine.gov/dep/projects/mrc/applications/04-2015-06-24-MRC-Fiberight_Air%20Emissions%20License%20Application.pdf

² <http://www.maine.gov/dep/ftp/MRC/applications/air/2016-09-22%20PTE%20Fiberight%20Rev1.pdf>

³ http://www.maine.gov/dep/ftp/MRC/applications/air/04-2015-06-24-MRC-Fiberight_Air%20Emissions%20License%20Application.pdf

⁴

<http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/PTE%20Boiler%204.pdf>

⁵

<http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/BACT%20Analysis%20revision%202.pdf>

⁶

<http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/2016-04-08%20Air%20application%20Revised%20PTE%20-%20Fiberight%20.pdf>

⁷ http://www.maine.gov/dep/projects/mrc/documents/2016-06-02%20BACT%20Analysis_Rev2.pdf

⁸ http://www.maine.gov/dep/projects/mrc/documents/2016-06-02%20BACT%20Analysis_Rev2.pdf

⁹

http://www.maine.gov/dep/projects/mrc/documents/MRC_Fiberight_Draft_Air%206_10_16.pdf

TABLE 3 COST DATA

DATE	SOURCE	Description
6/1/2015	Initial SW App ¹	Initial Solid Waste Processing Facility Application
12/18/2015	Covanta Letter ²	Letter from Covanta with project cost
12/14/2015	BACT Rev ³	Quote for odor control system, \$850,000
3/8/2016	Response to DEP ⁴	Increase in wastewater discharge
6/2/2016	Commonwealth ⁵	New project costs

TABLE NOTES:

¹ <http://www.maine.gov/dep/projects/mrc/applications/01-2015-06-24-MRC-Fiberight-solid%20Waste%20Processing%20Facility%20Application-Hampden.pdf>

² <http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/Letter%20of%20Support,%20Covanta-Fiberight%20MRC%20Project.pdf>

³ <http://www.maine.gov/dep/ftp/MRC/applications/supplemental%20application%20submittals/BACT%20Analysis%20revision%202.pdf>

⁴ <http://www.maine.gov/dep/ftp/MRC/Fiberight%20Response%20to%20Solid%20Waste%20Letter%2003-08-2016.pdf>

⁵ http://www.hampdenmaine.gov/vertical/sites/%7B1FCAF0C4-5C5E-476D-A92E-1BED5B1F9E05%7D/uploads/160602_MRC-pro-forma-review-June2016-FINAL.pdf