

**Town of Hampden  
Planning Board  
Wednesday May 11, 2016  
Municipal Building Council Chambers  
7:00 pm  
AGENDA**

- 1. Approval of Minutes (April 13, 2016)**
- 2. Old Business**
  - A. Site Plan/Conditional Use Review  
Fiberight LLC/MRC: Solid Waste Recycling and Processing Facility.**

The Municipal Review Committee/Fiberight LLC, has proposed to construct a 144,000 square foot Solid Waste Processing Facility with an attached 9,800 square foot administration building accessed by a 4,600 newly constructed commercial road. The road and facility are proposed to be located East of the Coldbrook Road on Map 9, Lot 35-39 and Map 14, Lot 7.  
**Continuation of Public Hearing from April 13, 2016**
- 3. New Business**
  - A. Site Plan Review/Approval (Permitted Use)**

Justin Lewis is seeking approval to establish a Speech Therapy Office at 626 Main Road North, located on Map 28, Lot 5 in the Business District. **Public Hearing**
  - B. Home Occupation Review/Approval**

Brandy Webb is seeking approval to establish a Home Occupation (Hair Salon) at 1245 Western Avenue, located on Map 7, Lot 15 in the Rural District. **Public Hearing**
- 4. Planning Board Concerns**
- 5. Adjournment**

Town of Hampden  
Planning Board Meeting  
Minutes  
Wednesday April 13, 2016

The meeting of the Hampden Planning Board was called to order at 7:00 pm Wednesday April 13, 2016 at the Hampden Municipal Building Council Chambers by Chairperson Weatherbee.

**Attendees:**

Peter Weatherbee - Chairperson  
Eugene P. Weldon  
Kelley Wiltbank  
Mort Syverson  
Joan Reilly

**Staff:**

Dean Bennett, Community Development Director (CDD)

**1. Approval of Minutes (March 16, 2016)**

Motion by Member Wiltbank, Second by Member Weldon to approve the Minutes as presented. Vote: Unanimous

**2. Old Business - None**

**3. New Business**

**Site Plan/Conditional Use Review**

**Fiberight LLC/MRC: Solid Waste Recycling and Processing Facility**

Municipal Review Committee/Fiberight LLC, has proposed to construct a 144,000 square foot Solid Waste Processing Facility with an attached 9,800 square foot administration building accessed by a 4,600 newly constructed commercial road. The road and facility are proposed to be located east of the Coldbrook Road on Map 9, Lot 35, 39 and Map 14, Lot 7. **PUBLIC HEARING**

Chairperson Weatherbee opened the meeting at 7:00pm Chairperson Weatherbee explained that, based on the report from Peer/Staff Review, this evenings discussion will focus on primarily Odor and Traffic impacts associated with the proposed facility.

Chairperson Weatherbee further described the proceedings for the evening would be to hear from the applicant on the proposed Site Plan/Conditional Use Application; Peer Review/Staff description of process and report; Woodard and Curran's report and recommendations; proponents of the project; opponents of the project; public that is neither for or against the project; Applicant's response to issues/questions raised; and Board Questions of the Applicant.

Chairperson Weatherbee asked for proponents of the project to come forward, state their name for the record, and to try to keep all comments relevant to the project being reviewed and the standards within the Zoning Ordinance for which the Planning Board is responsible.

**Chairperson Weatherbee Opened Public Hearing at 7:05pm.**

**Applicant:**

Sean Theis, Senior Project Manager, of Civil Engineering Services (CES) of Brewer, briefly introduced the representatives with him to present the development proposal.

Greg Louder: Executive Director of the Municipal Review Committee  
Denis St. Peter: President/CEO of Civil Engineering Services  
Kyle Sullivan: CES Engineer on Odor Control.  
Victor Smith, CES Engineer on Traffic Issues.  
Jon Pottle, Attorney for Eaton Peabody representing the applicant.

Greg Louder, Executive Director of the Municipal Review Committee explained that the MRC was one of two applicants for the project. The MRC's partner being Fiberight LLC. Greg presented a brief overview of MRC since its inception in 1991, describing the organization as private/public partnership created for the purposes of oversight of the PERC facility, representing approximately 187 towns. MRC has had direct involvement with the PERC facility operations and contractual agreements. Mr. Louder described the process undertaken to determine a site location for this project. Major considerations were given to the proximity to the central service area, combined with consistency with local comprehensive plans and land use regulations.

Denis St. Peter, President of CES, described the States hierarchy of solid waste. The Fiberight project will divert 70%-80% of the waste stream from landfills. The facility utilizes mechanical separation, pulping, wastewater treatment, and anaerobic digestors. The University of Maine Peer Review reported positive on the technology. He further explained that the Fiberight is in the process of obtaining numerous permits from the Department of Environmental Protection including: Site Location Development Permit; NRPA Vernal Pool/Stream; Air Emission License; 409 Processing Permit; Army Corp permit for wetland impacts; and an MDOT Entrance Permit.

Sean Theis, CES explained that the facility would be located at the end of an approximately 4,500 foot road. The road will be serviced by water, sewer, electricity and natural gas lines. The road is intended to be constructed to town standards and proposed to the town for acceptance. The Site Plan for the facility calls for a line from the existing gas pipeline, 144,000 square foot building with a 9,800 square foot administrative building. The building is provided with odor control equipment in the form of scrubbers and negative air flow. Outside storage tanks and stormwater treatment have been designed.

Victor Smith, CES, spoke to the anticipated traffic generation explaining that the 100 peak hour threshold will not be met in order to require a full traffic study. He acknowledged those areas noted by the town of Hampden as major concerns. According to their data, it is anticipated an additional 6-7 trucks per day would likely utilize Route 1A. The area of Route 202 and the Coldbrook Road did not project increases to a level of concern to warrant further study. Victor anticipated a deliver schedule between 6am and 6pm, primarily accessing the site off from I95.

Kyle Sullivan, CES indicated that the concerns stated by the Department of Environmental Protection were similar to those of Hampden. He offered the following list of odor controlling techniques to be utilized:

- Tipping floor waste management plan – First in first out
- Mechanical scrubbers/Large Fans
- No stored waste on-site
- Trucks covered/sealed
- Leaks on site – powder/sprays
- Trucks on site prioritized by smell
- Strongest odor trucks are scheduled for delivery
- Prevailing winds (North in Spring & Summer – South in Fall & Winter)
- DEP required daily inspections for odor during 1<sup>st</sup> 6 months of hot weather
- Odor complaints go directly to the DEP for enforcement

**Woodard and Curran Report on Peer Review:**

*Kyle Corbeil of Woodard and Curran*, Peer Review consultant for the town of Hampden, reported to the Board on his review findings:

**ODOR:** Mr. Corbeil noted lack of reported odor controls, information on the odor impact of delivery vehicles, lack of odor complaint systems, and overall standard for trash, debris and dust need to be further addressed. Mr. Corbeil noted that additional information has been submitted since he completed his review which has addressed a majority of these issues.

**TRAFFIC:** Mr. Corbeil noted that additional traffic information would be beneficial, such as trip generation of three shifts, traffic volume, LOS analysis, turn lane, and accident data.

**Proponents:**

Ivan McPike, Hampden Resident. Mr. McPike indicated he was a lifelong resident of Hampden and Town Councilor. He supports the Fiberight facility. Mr. McPike said that historic traffic associated with construction was far worse than what Fiberight would be contributing. With regard to Odor, he felt that if strategies were not affective, additional steps could be developed and implemented.

**Opponents:**

Jim Hornbrook, Hampden Resident on Main Trail, questioned what would happen in the event of a power loss? A delay in the processing line would increase odors that can't be addressed. He expressed his concerns over back-up alarms and Jake brake usage. He questioned if the additional traffic was going to create greater hazards on Route 202 leading to more accidents.

Mark Robson, Hampden Resident, reminded the board that there is over 10 million dollars in real estate value and over 50 families close by to the proposed facility. He expressed his concerns over traffic, suggesting that all trucks should be required to utilize I95 when delivering trash to the facility.

Kathy Walker, Hampden Resident, said she lived within a thousand feet of the facility. She referenced Standard 4.1.7.3 in the Zoning Ordinance and questioned if the 89 trips per day was accurate. She had calculated approximately 356 vehicles per day to and from the facility. She suggested that blinking traffic lights be installed along Coldbrook Road rather than the Truck Entrance Signs. Rather than a large STOP sign, blinking lights should be installed along the access road. With regard to air quality, she questioned if water drift from the cooling towers would affect neighboring properties along with excessive moisture from the plant.

Bill Lippencott, Hampden Resident, suggested that the project will exceed the limits of carbon dioxide, mercury, and chloride and encouraged the Board to wait until the DEP ruled on emission before making a decision.

Keith Bowden, Resident of Orrington questioned what steps were being taken to wash the trucks after dumping. He referenced a report that he prepared and submitted to the DEP on March 24<sup>th</sup> where he concluded that Hydrogen Chloride, Sulfur Dioxide, and Acid odors would be problematic. His suggested solution was to inject Limestone to neutralize. With regard to the anaerobic digestion process, he questioned if provisions were made in case of tank rupture.

Dale Parker, Hampden Resident, questioned whether these trucks were covered in route to the facility. He made the point that trucks rust and leak. He further stated his concerns over Jake brake use and traffic on Route 202.

Katherine King, Hampden Resident, stated her concerns with increased traffic and cost association with road maintenance due to the truck use and weight on local roadways. She further questioned the suggested 90 trips per day.

**Civil Engineering Services Response to Public Comment:**

Kyle Sullivan, CES explained that the application to the Maine Department of Environmental Protection was for a Minor Source Emission License. Gases that were mentioned, and the concentration, will be addressed through review of the license

application. He was confident that the DEP would not license the facility as Minor if in fact it did not meet the requirements.

Anaerobic Digestion process would utilize a "flare" to burn off excess gases only in emergency situations.

The process of waste to gas is accomplished with duplicative systems. If one system were to fail, a second system would provide back-up of continued processing. If both systems were to fail then it is likely all waste would have to be removed from the site.

**Questions from Planning Board Members:**

**Q-Chairperson Weatherbee:** Has the Virginia facility received complaints concerning odor or emissions issues?

**A-Denis St. Peter, CES:** There have been no odor issues or complaints at the Virginia facility.

**Attorney Bearor:** Attorney Bearor clarified that the Planning Board has an obligation to review the local ordinance provisions only. It is not within the Boards responsibilities to review the Department of Environmental Protection record.

**Q-Victor Smith, CES** asked the Planning Board what does the Board need for additional information and/or what data would it like to see?

**A-Planning Board Member Wiltbank** stated "Where is the waste coming from?" and how will the additional traffic affect local roads within the town?"

Jim Wilson, Woodard and Curran suggested that the Planning Board look to Maine Traffic Resources, Diane Morabito's report "Preliminary Traffic Review for Hampden Solid Waste Processing Facility", for recommendations on additional data and information.

**Chairperson Weatherbee** suspended the Public Hearing, to be continued at the next regularly scheduled meeting on May 11, 2016 at 7:00pm in the Town Council Chambers.

**4. Community Development Director's Report**

Community Development Director reminded Board Members of the upcoming Maine Municipal Association Workshop for Planning Boards and Boards of Appeal on April 25<sup>th</sup>.

5. Planning Board Concerns - None
6. Meeting adjourned at 9:15 pm.

Respectfully Submitted,

Michael Avery  
Secretary Hampden Planning Board



Dean Bennett <[economicdevelopment@hampdenmaine.gov](mailto:economicdevelopment@hampdenmaine.gov)>

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## Photos of Lawrenceville VA Fiberight plan

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Angus Jennings <[townmanager@hampdenmaine.gov](mailto:townmanager@hampdenmaine.gov)>

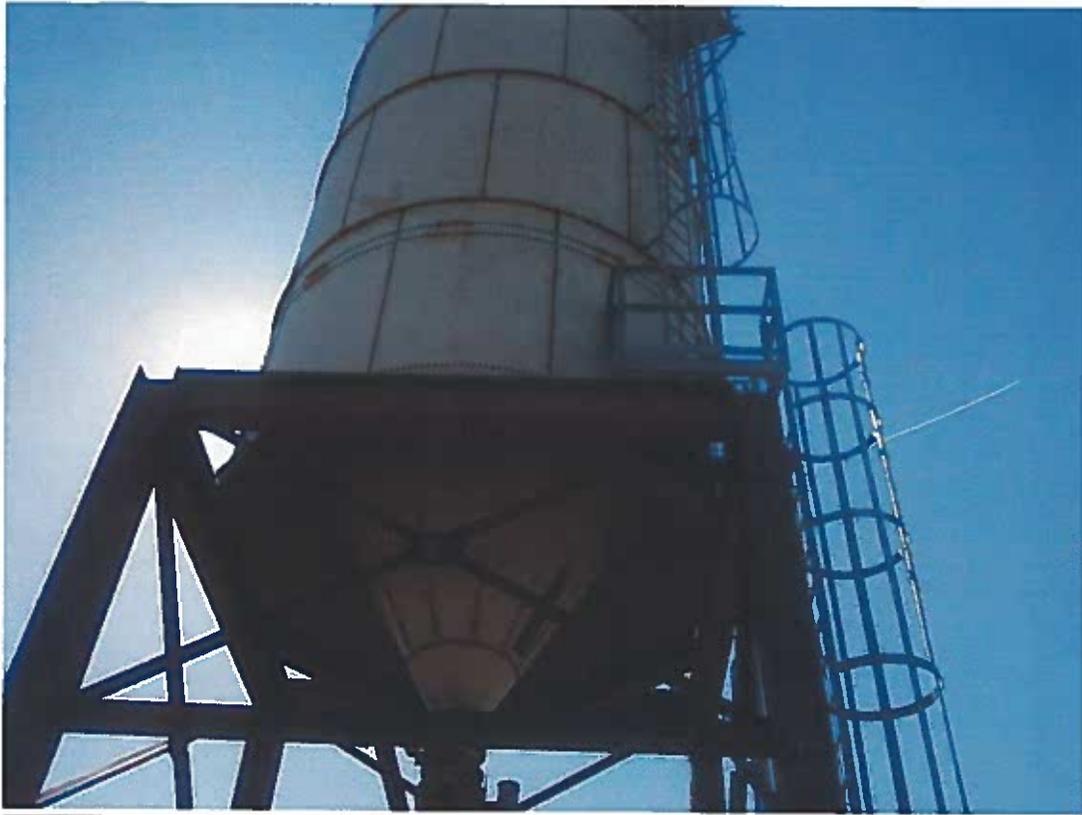
Tue, Apr 19, 2016 at 10:10 AM

To: Dean Bennett <[economicdevelopment@hampdenmaine.gov](mailto:economicdevelopment@hampdenmaine.gov)>

Mayor Ryder visited the facility on Saturday and shared the attached photos. These should be added to the Planning Board's record for the public hearing.













—  
Angus Jennings  
Town Manager

Town of Hampden  
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Hampden, ME 04444  
(207)-862-3034  
[townmanager@hampdenmaine.gov](mailto:townmanager@hampdenmaine.gov)

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**Town of Hampden**  
106 Western Avenue  
Hampden, Maine 04444



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email:  
[economicdevelopment@hampdenmaine.gov](mailto:economicdevelopment@hampdenmaine.gov)

## MEMORANDUM

To: Town of Hampden Planning Board  
From: Dean Bennett, Community Development Director  
Re: Planning Board Agenda, Wednesday May 11, 2016  
Date: May 2, 2016

### New Business

#### B. Home Occupation Review/Approval

Brandy Webb is seeking approval to establish a Home Occupation (Hair Salon) at 1245 Western Avenue, located on Map 7, Lot 15 in the Rural District. Public Hearing

**Overview.** Applicant requests approval of a Home Occupation for a sole proprietorship Hair Salon to be established in a portion of the basement of her residence at 1245 Western Avenue, and located on Map 7, Lot 15 within the Rural District. There is no construction or alteration being proposed to accommodate the salon. There will be no changes to the property and the applicant does not wish to erect a sign.

**Governing Ordinance Regulations.** The application is subject to the standards contained in Zoning Ordinance, Article 4.10 Home Occupation Permits and Article 3.9 Rural District.

#### Zoning Ordinance Article 3.9 Rural District:

The proposed Home Occupation is a Permitted Use in the Rural District.

#### Zoning Ordinance Article 4.10 Home Occupation Standards:

**Home Occupation Permit.** Applicant has provided a sketch plan of the property, and a Google image of the existing residence. With the utilization of a portion of the basement, a lack of signage and a single chair operation, there appears to be no impact on neighboring properties

**Employees:** The Home Occupation will only be conducted by the applicant.

**Incidental and Subordinate:** There will be no affect on the neighborhood character. The Home Occupation is proposed within a portion of the basement of the three story home, clearly under the 30% limitation of floor area of the principal structure.

**Appearance and Performance Standards:** There will be no exterior changes to the building or site. There is ample parking provided, much greater than the required three spaces, with one anticipated scheduled customer at a time. The residence is back from the road in a very rural setting posing no impact on neighboring properties.

**Signs and Advertising:** The applicant does not wish to propose any signage.

**Traffic and Parking:** Adequate parking is provided with ease of ingress and egress of the property.

**Commercial Vehicles:** Delivery vehicle such as an occasional UPS truck is anticipated and will not differ from that of a typical residential setting.

**Utilities and Public Facilities:** No greater use of public facilities or utilities.

**Recommendation:** Staff recommends approval of the proposed Home Occupation Permit to establish a hair salon in the basement of the dwelling located at 1245 Western Avenue, Map 7, Lot 15 in the Rural District as proposed.



## HOME OCCUPATION PERMIT APPLICATION

Please note that this application must be submitted with plans in conformance with Section 4.1 and 4.10 of the Hampden Zoning Ordinance. *Incomplete applications will not be processed. All fees must be paid for application to be processed. Proper number of copies of application must be submitted in order to be processed.* All town ordinances are available at [www.hampdenmaine.gov](http://www.hampdenmaine.gov) for review.

Date: 4-19-16

### APPLICANT:

Name: David and Brandy Webb

Address: 1245 Western Avenue

Phone: 735-8226 Cell: 862-6799 Email: D\_Webb5@tds.net

### AGENT:

Name of agent or representative: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell: \_\_\_\_\_ Email: \_\_\_\_\_

### THE SITE:

Location of site: 1245 Western ave Hampden tax map and lot number: MAP 7, lot 15

Zoning district: Rural Existing use of property: Home

Legal interest in the parcel: Owner

Owner of parcel if other than applicant: Same

Owner's address: Same

### PROPOSED PROJECT:

Proposed use of property: Hair salon in the basement  
(Please include floor area per use, seating if applicable, and land area).

Proposed starting date: May 2016 Final completion date: \_\_\_\_\_

**(APPLICATION CONTINUES ON REVERSE SIDE.)**

**Brandy Webb**

Write a description for your map.

**Legend**

📍 1245 Western Ave

1245 Western Ave

Google earth

© 2016 Google

100 ft



## WARRANTY DEED

William H. Estey and Sharon L. Estey, husband and wife of Hampden, Penobscot County, Maine, for consideration paid, grant to David S. Webb and Brandy L. Webb, husband and wife, both of Hampden, Penobscot County, Maine (whose mailing address is 829 Kennebec Road, Hampden, ME 04444) with Warranty Covenants, as joint tenants, the following described real estate:

A certain lot or parcel of land with any improvements thereon, situated on the southerly side of the Western Avenue, located in Hampden, Penobscot County, Maine, more particularly described as follows:

Beginning at a 5/8 inch rebar found marking the northeasterly corner of land conveyed to Ralph Arbo and Jeanne Arbo as described in a deed recorded at the Penobscot County Registry Deeds in Book 2307, Page 251 and the southerly side line of Western Avenue; thence South 10 degrees 13 minutes 38 seconds East, by and along the land of said Arbo, a distance of two hundred fifty-six and thirty hundredths feet to an angle point in a rock wall; thence South 12 degrees 15 minutes 54 seconds West, by and along land of said Arbo and land conveyed to Nina Whitaker as described in a deed recorded at said registry in Book 2447, Page 218, a distance of one thousand five hundred six and fifty-six hundredths feet to a point at the end of a rock wall; thence South 12 degrees 41 minutes 53 seconds West, by and along land of said Whitaker, a distance of eight hundred sixty-six and twenty-five hundredths feet to a 5/8 inch rebar set with a cap stamped D. Ginn PLS #2347 in the northerly line of land conveyed to Edward Dysart and Mary Dysart as described in a deed recorded at said Registry in Book 6603, Page 204; thence South 80 degrees 36 minutes 10 seconds East, by and along land of said Dysart, a distance of seven hundred four and eighty-five hundredths feet to a 5/8 inch rebar set with a cap stamped D. Ginn PLS #2347; thence North 40 degrees 08 minutes 30 seconds East, by and along land of said Dysart, a distance of two hundred fourteen and sixty hundredths feet to a point in an old roadway known as the Cross Road; thence North 38 degrees 56 minutes 09 seconds East, by and along land conveyed to Mark Martin and Lisa Martin as described in a deed recorded at said registry in Book 5744, page 292 and land conveyed to Sarah Junkins and Jonathan Harris in a deed recorded at said registry in Book 11942, page 166, a distance of five hundred forty-eight and fifty hundredths feet to the intersection of wire fence in the southwesterly line of land conveyed to Timothy Hardy as described in a deed recorded at said registry in Book 3223, Page 249; thence North 58 degrees 15 minutes 52 seconds West, by and along land of said Hardy, a distance of five hundred forty-three and seventy-eight hundredths feet to a 3/4 inch rebar found with a cap stamped Plisga & Day PLS 1151; thence North 31 degrees 05 minutes 19 seconds East, by and along land of said Hardy, a distance of one thousand two hundred and thirty-eight hundredths feet to a 3/4 inch rebar found with a cap stamped Plisga & Day PLS 1151; thence North 33 degrees 19 minutes 42 seconds West, by and along the remaining land conveyed to William and Sharon Estey as described in a deed recorded at said Registry in Book 3011, Page 322, a distance of eight hundred thirty-five and eighty-two hundredths feet to a 5/8 inch rebar set with a cap stamped D. Ginn PLS 2347; thence North 48 degrees 07 minutes 12 seconds west, a distance of one hundred seventy-nine and nineteen hundredths feet to 5/8 inch

rebar set with a cap stamped D. Ginn PLS 2347 in the southerly side line of Western Avenue; thence South 82 degrees 11 minutes 43 seconds West, by and along the southerly side line of Western Avenue, a distance of two hundred eighty and eighty-one hundredth feet to the point of beginning.

The above-described premises being comprised of the following lands conveyed to William Estey and Sharon Estey:

1. A portion of land conveyed to William H. Estey and Sharon L. Estey by Richard H. Reeves and Dorothy E. Reeves in a deed dated January 22, 1979 and recorded at the Penobscot County Registry of Deeds in Book 3011, Page 322.
2. Land conveyed to William H. Estey and Sharon L. Estey by Richard H. Reeves and Dorothy E. Reeves in a deed dated November 1, 1980 and recorded at the Penobscot County Registry Deeds in Book 3154, Page 26.
3. A portion of and conveyed to William H. Estey and Sharon L. Estey by Richard H. Reeves and Dorothy E. Reeves in a deed dated September 30, 1994 and recorded at the Penobscot County Registry of Deeds in Book 5728, Page 66.

Any and all other rights, easements, privileges and appurtenance belonging to the granted estate are hereby conveyed.

This conveyance is made subject to the property taxes assessed against the premises which said taxes are to be prorated between the parties hereto as of the date of delivery of this deed in accordance with 36 M.R.S.A., sec. 558.

Witness our hands and seals this 12th day of September, 2013.

WITNESSES:

*[Handwritten signatures of witnesses]*

STATE OF MAINE  
PENOBSCOT, ss

*[Handwritten signature of William H. Estey]*  
\_\_\_\_\_  
William H. Estey

*[Handwritten signature of Sharon L. Estey]*  
\_\_\_\_\_  
Sharon L. Estey

*[Handwritten date]* 12th 2013

Then personally appeared the above named William H. Estey and acknowledged the foregoing instrument to be his free act and deed.

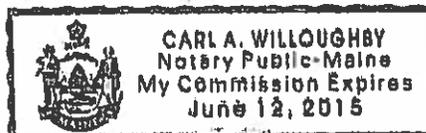
Before me,

*[Handwritten signature of Notary Public]*  
\_\_\_\_\_  
Notary Public/Justice of the Peace

Commission Expiration:

Maine Real Estate  
Transfer Tax Paid

File No.: 13-0861AR



PENOBSCOT COUNTY, MAINE

*[Handwritten signature of Susan F. Bulley]*  
\_\_\_\_\_  
Register of Deeds

**Town of Hampden**  
106 Western Avenue  
Hampden, Maine 04444



Phone: (207) 862-4500  
Fax: (207) 862-5067  
email:  
[economicdevelopment@hampdenmaine.gov](mailto:economicdevelopment@hampdenmaine.gov)

## MEMORANDUM

To: Town of Hampden Planning Board  
From: Dean Bennett, Community Development Director  
Re: Planning Board Agenda, Wednesday May 11, 2016  
Date: May 2, 2016

### **New Business**

#### **A. Site Plan Review/Approval (Permitted Use)**

Justin Lewis is seeking approval to establish a Speech Therapy Office at 626 Main Road North, located on Map 28, Lot 5 in the Business District. Public Hearing

**Overview.** Applicant requests Site Plan Review/Approval for the establishment of a professional office (Speech Therapist) in a single-family home within the Business District at 626 Main Road North and located on Map 28, Lot 5. The proposed use is classified as a Permitted Use within the District in which it is to be established.

**Governing Ordinance Regulations.** The application is subject to the standards contained in Zoning Ordinance, Article 3.4 Business District; Article 4.1 Site Plan Review; and Article 4.8.7 Signs in Commercial Districts.

#### Zoning Ordinance Article 3.4 Business District:

The proposed use is consistent with the provisions contained within Article 3.4 as it is a Permitted Use within the Business District, and is to occupy an existing dwelling. Other than compliance with the ADA (ramp), provisions for required parking, and a sign, there is no other outside construction or alteration proposed for the property. The inside of the building is to be renovated to suit the intended use. The applicant has already met with Code Enforcement to ensure compliance with applicable codes.

#### Zoning Ordinance Article 4.1 Site Plan Review:

Applicant has submitted a series of maps intended to address the submission requirements contained in 4.1.6 Required Information on Plans. In addition, applicant has provided a narrative addressing those items listed in 4.1.7 Standards Governing Site Plan Review.

**Zoning Ordinance Article 4.8.7 Signs in Business District:**

Applicant has indicated in his submission materials he is aware and understands the sign limitations as described in this Article. Furthermore, a sign permit will need to be obtained from Code Enforcement prior to the erection of any sign. Applicant has indicated on plan the location of the proposed sign.

**Staff Note:** The only proposed change to the property is the construction of a handicapped access ramp, requiring approval from Code Enforcement, and the proposed five (5) parking spaces that are in compliance with the required one (1) space per 250 sq ft. as the building is 1200 sq ft. The office operation will typically be by appointment. The site is to be re-graveled with no impervious surface being created.

**Recommendation:** Staff recommends approval of the Site Plan Permitted Use Application for the establishment of a professional office in a former residential dwelling within the Business District as proposed.



**SITE PLAN - PERMITTED/CONDITIONAL USE APPLICATION**

Please note that this application must be submitted with plans in conformance with Section 4.1 and 4.2 of the Hampden Zoning Ordinance. *Incomplete applications will not be processed. All fees must be paid for application to be processed. Proper number of copies of application must be submitted in order to be processed.* All town ordinances are available at [www.hampdenmaine.gov](http://www.hampdenmaine.gov) for review.

Date: 4/12/16

**APPLICANT:**

Name: Justin Lewis

Address: 64 Roundstone Dr Glenburn ME

Phone: 603-731-6840 Cell: \_\_\_\_\_ Email: justinlewis4@hotmail.com

**AGENT:**

Name of agent or representative: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell: \_\_\_\_\_ Email: \_\_\_\_\_

**THE SITE:**

Location of site: 626 Main Rd North Hampden tax map and lot number: 28-0-005

Zoning district: business Existing use of property: residential

Legal interest in the parcel: owner

Owner of parcel if other than applicant: \_\_\_\_\_

Owner's address: \_\_\_\_\_

**PROPOSED PROJECT:**

Proposed use of property: professional offices  
(Please include floor area per use, seating if applicable, and land area).

Proposed starting date: upon approval Final completion date: \_\_\_\_\_

**(APPLICATION CONTINUES ON REVERSE SIDE.)**

Site Plan Application 626 Main Rd North Hampden ME

4.1.6.

1. Map A (1in=33 ft), Map B (1in=66ft) Map C (1in=133ft)
2. Justin Lewis, Jessica Lewis
3. See Map A,B,C
4. See Map A
5. See Map C
6. See Map A,B,C
7. See Map A,B,C (use existing Drive from Main Rd N)
8. See Map A
9. See Map A, B,C
10. Use of all existing utilites.
11. Use of all existing drainage ways (see Map B)
12. Use of all Existing outdoor lighting
13. N/A
14. See Map A,B,C for all Existing Fences, Hedges, And Trees.
15. N/A
16. See Map A (Sign shall Conform to zoning Ordinances as prescribed in section 4.8.7)
17. Business District

Justin & Jessica Lewis

[Justinlewis4@hotmail.com](mailto:Justinlewis4@hotmail.com)

Justin Cell: 603-731-6840

Jessica Cell: 603-724-3535

Site Plan Application 626 Main Rd North Hampden ME

4.1.7.

1. Proposed use of 626 Main Rd North Hampden from a single family structure to professional offices.
2. No changes will be made to the outside structure on the building with the exception of the addition of a handicapped accessible ramp into the main entrance of the building.
3. The driveway to the residence will be re graveled and an area large enough to turn the car around in the posterior of the driveway will be added.
4. Snow can be plowed to the end of the driveway area
5. One sign shall be placed on the anterior of the property to denote the name of the business within the regulations of the town of Hampden. Exterior lights will remain beside the side and front entrances
6. Size and shape of the building will not be altered with the exception of a handicapped ramp at the front entrance
7. Only change to the landscape will include a change in driveway to accommodate 5 parking space with turn out area as required by the square footage 1200sq ft.
8. NA
9. NA
10. NA
11. NA
12. NA
13. NA

Justin & Jessica Lewis

[Justinlewis4@hotmail.com](mailto:Justinlewis4@hotmail.com)

Justin Cell: 603-731-6840

Jessica Cell: 603-724-3535

# Map A



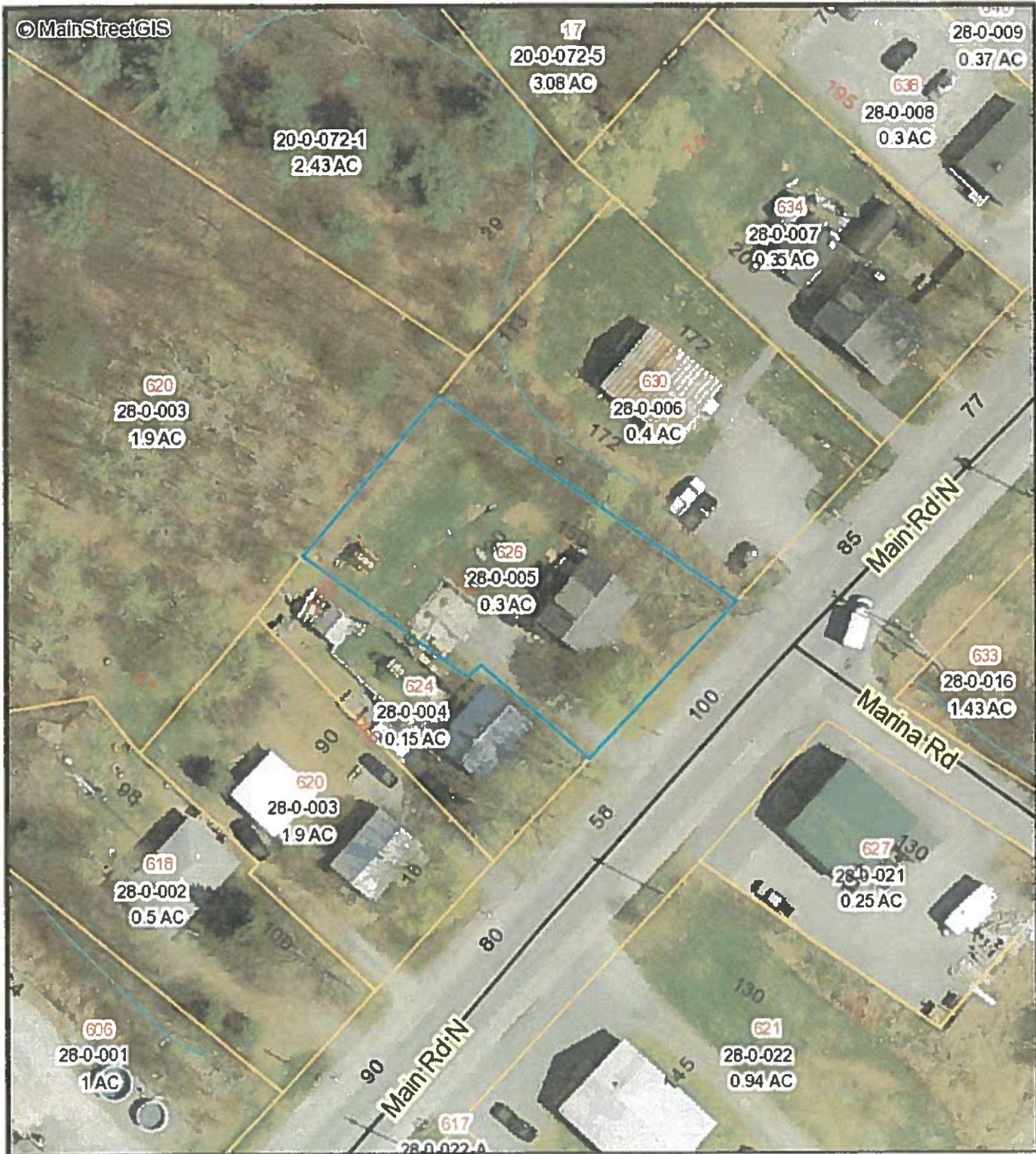
1 in =  
33.3 ft

This map is for informational purposes only. It is not for appraisal of, description of, or conveyance of land. The Town of Hampden, Maine and MainStreetGIS assume no legal responsibility for the information contained herein.

Printed on 4/3/2016  
Last update: Property information 8/1/2014, GIS parcel lines 2014

MainStreetGIS, LLC  
www.mainstreetgis.com

# Map B



1 in = 66.6 ft

This map is for informational purposes only. It is not for appraisal of, description of, or conveyance of land. The Town of Hampden, Maine and MainStreetGIS assume no legal responsibility for the information contained herein.

Printed on 4/1/2016  
Last update: Property information 8/1/2014, GIS parcel lines 2014



MainStreetGIS, LLC  
www.mainstreetgis.com



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

March 23, 2016

Re: Fiberight, LLC & MRC Project – Air Emission License Application – DEP Project # AM- 1111-71-A-N

Dear Ms. Churchill,

Following is the third in the series of technical reviews of the information contained in the permit applications for the Fiberight, LLC and the Municipal Review Committee (MRC) for the proposed solid waste processing facility in Hampden. (Project number DEP# S-022458-WK-A-N). The focus of this critical analysis is on the Air Emission License/Permit Application (Air License # A-1111-71-A-N consisting of 102 pages) that was initially submitted on June 15, 2015 and has been repeatedly modified, required various supplements, added to. These include, but are not limited to 1) 3-4 changes to the number of operational hours of the Hampden facility (specifically the Hurst boilers) that will be emitting various routine and hazardous air pollutants, 2) 4 upward revisions/changes in the quantity of carbon monoxide to be released to the atmosphere, yet no discussion of the potential to emit certain hazardous air pollutants, including but not limited to Hydrogen Chloride and Mercury; 3) a significant change in what is being combusted in the two boilers with the applicant's June 2015 stated plans to collect and gasify the wood wastes component of the Municipal Solid Waste (MSW) stream with the Post Hydrolysis Solids (PHS) produced via enzymatic hydrolysis, and then by mid-November the recovered wood was not going to be blended, gasified for energy recovery, 4) and the continued insistence thru its calculation contortions that the project is a minor source of regulated air pollutants under Maine State regulations.

This document format is the same as the previous 2 submittals where the applicant's positions is cited and then identifying the technical errors, omissions and inconsistencies with their information. One aspect of the Air Emission permit that the applicant needs to clarify deals with the view that "fermentate" is the same as wood and Post Hydrolysis Solids. I'm in hopes that the applicants can enlighten me on the validity of their positions they are taking and that the Maine DEP can also clarify some aspects of their technical reviews.

As I have noted in prior submittals, the engineering, technical, marketing, and socio-economic aspects of the Fiberight project have kept changing, and I must conclude there is no sound basis for approval of a conceptual project as the design appears far from being finalized.

Please provide the attached technical review to the appropriate parties, and pass along any questions/responses that the applicant or personnel in the Air Division may have. Thank you for your assistance.

Sincerely,

*Keith A. Bowden*

Keith A. Bowden

Resident: Town of Orrington

### **Part 3: Critical Technical Analysis of Errors, Omissions and Inconsistencies found in the MRC/Fiberight Air Emissions Permit Application and Air Permit Supplemental Reports & Deliverables from CES on Hampden, ME Project**

What follows is a review of some of the errors, omissions, unclear and contradictory statements in the review of the June 15, 2015 Air Emissions Permit Application (AEPA) and the various supplementals over the ensuing months.

- 1. Applicant's Information:** In 2 separate permit application submittals (Original June 15, 2015 AEPA- Appendix 1) and Dec. 14, 2015 BACT Analysis rev. 2- Appendix 1), the applicant provides 20 pages of info titled Non-Waste Determination Application for Non-hazardous Secondary Material – Fermentate from a Cellulosic Ethanol Plant Pursuant to 40 CFR Section 241.3, Standards and Procedures for Identification of Non-Hazardous Secondary Materials (NHSM) and dated 6/7/2013.

But on page 2 of the June 15, 2015 "Attachment C BACT Analysis" and page 3 of text of the December 14, 2015 "BACT Analysis rev. 2" the applicant state:

"Fiberight has submitted a Non-waste Determination Application for Non-Hazardous Secondary Material (NHSM) to the United States Environmental Protection Agency (EPA) in reference to the **Post-Hydrolysis Solids (PHS) fuel**. (emphasis added) The application ... to demonstrate the **PHS fuel** (emphasis added) meets the legitimacy criteria and is not a solid waste".

**Technical Review:** A review of all the information in the two appendices is clearly important to the applicant for the air emission application, but should certainly be confusing to the general public and this reviewer. The NHSM application referenced in this AEPA is for a project in Iowa for "fermentate" from a ethanol plant". We know from submittals by the Town of Orrington (October 27, 2015 – Solid Waste Permit Application Review of the Fiberight Project, etc.) and reviews by me on February 1, 2016 and February 29, 2016) that ethanol is not part of the Hampden project. The applicant has yet to provide responses to the October 2015 or February 29, 2016 reviews nor have they answered questions that were contained therein. In addition, a response is clearly warranted to the following:

- 1.1. What is the basis for implying in the two BACT analysis appendices that "fermentate from a cellulosic ethanol plant" is the same as "Post Hydrolysis Solids".
- 1.2. What is "fermentate" in relation to the Maine project?.
- 1.3. Does the information from Fiberight to the EPA and/or subsequent email exchanges state that fermentate is PHS? Can Fiberight provide all correspondence (up to the current month) associated with this NHSM application?

- 2. Applicant's Information:** Pending response to questions raised in Technical Review - section 1 above, let's accept the idea put forth by the applicant that "fermentate" is the same as PHS. Now look at the Fiberight data submitted to the EPA in the application, and accept the criteria Fiberight put forth that PHS fuel is something that various customers would use in their combustion units. On "page 34-Summary" of the NHSM application, Fiberight states that their fermentate/PHS material:

"is similar in content to more widely used fuels, and emissions from its burning should be similar as well. Tables are included in this document that compares both constituents with other fuels, and likely air emissions. Emission factors for criteria pollutants are likely to be similar to the burning of wood or bagasse. Metals emissions were calculated directly from analyses of the NHSN for metals content. Neither the criteria nor hazardous waste pollutants are much different from those emitted from wood, bagasse, coal, TDF, and so on. The material has a significant heating value, similar to bagasse and wood and as such, should be

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harvested to produce renewable energy. With its fuel made from what would otherwise be waste, Fiberight is at the forefront of cellulosic ethanol production technology.”

Later on page 38 in the document, Fiberight presents Table 1 titled “Comparison of Fermentate to Common Fuels”. The NHSM heading in the table has a notation/superscript “o” next to it, but has no explanation as to the meaning of the note. It appears that the data in this column is an actual analytical test result run on “fermentate”. Fiberight then declares:

“As the table shows, the fermentate has similar composition to the other commonly used fuels. Moisture is comparable with wood or bagasse, and the carbon and hydrogen components are similar to wood. In fact, the composition of the residuals is most similar to wood. ... Therefore, to estimate emissions from burning the material we have used EPA’s AP 42 criteria pollutant emission factors for wood. There is robust data for the emission factors for wood, which is not the case for biomass or paper mill sludge.”

**Technical Review:** Accepting Fiberight’s declaration that “fermentate/PHS” is the same as wood and that the Maine DEP should accept using the emission data it provides them, let us look at such data in Table 2, titled Emission Factors for Criteria Pollutants for Coal and Wood, found on page 41 of the Fiberight NHSM Non-Waste application. In all cases (except for sulfur dioxide/oxides of sulfur – SO<sub>x</sub>), we see Fiberight using the same emission factor value for its fermentate/PHS/NHSM as the data listed for wood. Thus, using Fiberight’s own argument it made to the EPA and Maine DEP, the appropriate emission factors to use, for example, for carbon monoxide is from wood. The value which is listed is 0.60 pounds of CO/mm Btu of heat input from the combustion unit. So, in the case of the Hampden project, Fiberight should apply that factor to the Hurst Boilers combusting PHS. Yet, CES ignores the very data it has submitted on Fiberight’s behalf and instead uses a factor of 0.22 pounds of CO/mm Btu of heat input in the Boiler Performance Summaries.

As you know, for regulatory permitting purposes, potential new source facilities are categorized as “minor sources” if they have the potential to emit (PTE) less than 50 tons per year (TPY) of volatile organic compounds (VOC), 10 TPY of a single Hazardous Air Pollutant (HAP), or 25 TPY of all HAPS combined or under 100 TPY of any other regulated pollutant, like carbon monoxide. Sources with the PTE in excess of these thresholds are regulated as “major sources”

- 2.1. Why isn’t CES/Fiberight being consistent in its argument the fermentate/PHS/NHSM is wood and thus using the 0.6 factor for PHS that the NHSM application presents?
- 2.2. Applying the 0.6 factor would increase the CO emissions by 2.73 times and puts the CO annual emissions for just one of the Hurst boilers from the Dec. 14, 2015 value of 44.78 TPY to over 122.25 TPY.
- 2.3. Using CES/Fiberight’s own argument’s and data it supplied to the DEP, why isn’t the Hampden project considered a Major Source of air emissions for CO under Chapter 115 rules for its’ AEPA.
- 2.4. What is the meaning of the NHSM heading in the table that has a notation/superscript “o”. Is this an actual test result conducted on “fermentate” prior to 2013?
- 2.5. What justification does the applicant have for cherry picking data it has submitted for regulatory review? Even if the applicant averages the CO emission factor from the manufacturer’s (Hurst) and the figure from the NHSM application, the Hampden project will exceed the 100 TPY limit as it applies to Maine DEP Chapter 115 and is therefore a “Major Source”.

3. **Applicant’s Information:** In Table 1 of the Appendix 1 NHSM titled “Comparison of Fermentate to Common Fuels” on page 38 we find that it lists Chlorine at 0.2% by weight as a component in their “fermentate” /NHSM/ PHS material. (Until the applicant answers the question 2.5 above, one does not know for sure if this result is for an actual fermentate sample.)

**Technical Review:** Since no chlorine values are listed for wood, let us accept the chlorine number provided by the applicant as an actual test result for chlorine levels in Fiberight’s PHS. The implication is

that the Hurst gasifying boilers in Hampden would have emissions of hydrogen chloride in its stack gasses. Municipal Solid Waste (MSW) is known to contain chlorine from a wide variety of sources as this element is ubiquitous. If Fiberight responds to Question 2.4 above and we find that the data listed in the table is for actual fermentate/PHS, the Maine DEP must conclude that the HAP hydrogen chloride will be released untreated to the atmosphere. Conservative calculations presented below of this HAP indicate that uncontrolled emissions of HCl will exceed the 10 TPY limit for this compound and the 25 TPY limit for all HAPS. As with the carbon monoxide emission calculations presented above, one must conclude that the Hampden project is a Major Source of air pollutants and requires a more extensive review, including additional opportunities for input from the public and the EPA. The hydrogen chloride calculations, using the Fiberight data presented in the two BACT submittals are as follows:

For the two Hurst boilers, using CES supplied estimates found in the BPS are 6.57 tons/hr of 50% PHS solids fed per boiler. Assuming the Chlorine value in Table 1 is on a dry weight basis, hydrogen chloride, the calculation is as follows:  $0.2 \text{ \# Cl}/100 \text{ \# dry PHS} \times (36.45 \text{ \# HCl}/35.35 \text{ \# Cl}) \times (6.57 \text{ tons wet PHS}/\text{boiler-hr}) \times (0.5 \text{ \# dry PHS}/1.0 \text{ \# wet PHS}) \times 2 \text{ Boilers} \times 8760 \text{ hr/year} = 118.35 \text{ ton HCl per year in flue gas.}$

Even if only 1/3 of the available Chlorine is converted to HCl, the Hampden project is over the 10 TPY limit for a single HAP and over the 25 TPY limit for all HAPS. CES/Fiberight calculated only 7.1 TPY of all HAPS, but did so by NOT including Chlorine, in spite of data supplied by the applicant in both BACT submittals. To insure that the PTE is limited to less than 10 TPY from all HAPS, they will need some sort of injection system in the gasifiers to control HCl. A limestone injection system would convert the HCl to a particulate salt depending upon the sorbent used. It is unknown whether the Hurst gasifier boilers for the Hampden can accommodate an in-duct sorbent injection system. The bag house currently planned would have to be sized to handle the added particle loading of the HCl control measures.

- 3.1. Will the applicant provide clear and compelling data refuting the presence of HAPS chlorine from past analytical test data submitted in the two Maine BACT applications for the AEPA for Hampden?
  - 3.2. Will the Maine DEP reject the AEPA submitted by the applicant as not meeting the criteria of a Minor Source of air emissions nor complying with the regulator requirements of Chapter 115 for Best Available Control Technology or Maximum Available Control Technologies (MACT), as appropriate with respect to HAPS?
  - 3.3. Will Fiberight be required to demonstrate compliance by the DEP with any HCl limits with something like a FTIR spectrometry system for Continuous Emission Monitoring (CEM) of HCl on each boiler?
  - 3.4. Given the technical analysis provided above, is not the Fiberight project in Hampden a "Major Source of HAP" subject to EPA Region 1 permitting and oversight?
4. **Applicant's Information:** In Table 1 of the Appendix 1 NHSM titled "Comparison of Fermentate to Common Fuels" on page 38, the applicant provides what appears to be an actual emission factor for the element mercury, (chemical symbol Hg) in their "PHS" material. The emission factor provided for mercury is 3.96 E-05 pounds per million BTU of heat input for any given boiler.

**Technical Review:** There is a statutory limit for the HAP mercury under 38 MRSA ¶ 585-B set at 25 pounds per year (ppy). Applying the emission factor supplied by the applicant in 2 separate permit application submittals (June 15, 2015 AEPA- Appendix 1 and Dec. 14, 2015 BACT Analysis rev. 2- Appendix 1), we find that the Hampden project exceeds the statutory limit by nearly 36%. The calculation is as follows:

Boiler Heat input of 48.86 mm Btu/hour/boiler x 2 boilers x 0.0000396 # Hg/mm Btu/hr x 8,760 hrs per year = **33.9 pounds Hg per year** or 35.6 % above the 25 #pound/year limit.

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- 4.1. Given the technical analysis provided above, is not the Fiberright project in Hampden in violation of statutory limit for the HAP mercury under 38 MRSA ¶ 585-B set at 25 pounds per year (ppy).
  - 4.2. Can the applicant provide clear and compelling data refuting the presence of HAPS Mercury from past analytical test data submitted in the two Maine BACT applications for the AEPA for Hampden?
  - 4.3. Will Fiberright be required by the DEP to demonstrate compliance to Maine statues by providing a 90% reduction in Mercury emissions through the use of BACT or Maximum Achievable Control Technology (MACT) using such technologies as carbon injection in each boiler stack gases?
5. **Applicant's Information:** Again, In Table 1 of the Appendix 1 on page 38 the element Sulfur is listed at 0.05% by weight as a component in their "fermentate" /NHSM/ PHS material. Once again, one does not know for sure if this result is for an actual sample that Fiberright provided at the time of the NHSM application.

**Technical Review:** As with the carbon monoxide emission calculations, the hydrogen chloride HAPS emissions, and the Mercury emissions presented above, one must conclude that the Hampden project is a Major Source of air pollutants requiring a more extensive permit review. As with the above calculation methods, no adjustments for "operational hours" less than 8,760 hours in a year are made in the calculations. (A discussion of the confusing aspects of the applicant's use of "operational hours" for the PTE and BPS calculations in the AEPA and the supplements are discussed in the following section - #7.)

Based on the data provided by the applicant, one can calculate the "potential" tons per year of sulfur dioxide emitted each year. The resultant value equates to 57.6 TPY of SO<sub>2</sub> emitted from the two. The calculations are 0.05 # S/100 # dry PHS x (2 # SO<sub>2</sub> per # Sulfur) x (6.57 tons wet PHS/boiler-hr) x (0.5 # dry PHS/1.0 # wet PHS) x 2 Boilers x 8760 hr/year = 57.6 TPY SO<sub>2</sub>). While well below the 100 TPY regulatory limit, the control equipment determined above for HCl would likely provide control of SO<sub>2</sub>.

- 5.1. CES cites 10.16 TPY of SO<sub>2</sub> using the manufacturers' emission factors and provides no specific control of SO<sub>2</sub> or HCl, for that matter. Does the DEP concur with the information provided by the applicant or by this technical review of the AEPA and the supplemental information on the DEP's website?
  - 5.2. Does the Maine DEP concur that no CEMS are required for either boiler?
  - 5.3. Does the Maine DEP concur with the applicants' claim that they are under the emission thresholds for HAPS and other regulated pollutants? If the applicants' conclusions and calculations are not valid, then the Maine DEP must conclude that they are a "Major Source" of air pollutants and need to be regulated as such.
6. **Applicant's Information:** The applicant discusses the hazardous air pollutants (HAPs) in the NHSM application includes values for emission factors In Table 3 of Appendix 1 on pages 42 – 43 titled "Emission Factors for Coal and Wood – Metals Concentration of Fermentate.". The following section is excerpted from page 39:

"For metals, we have conservatively assumed that metals in the washed pulp would not participate in the fermentation process, and would be 100% contained in the residual material. The volatility of each of the metals was then determined, and the destination (fly ash, bottom ash) was determined from research paper authored by Leslie Sloss..."

This table includes the emissions factors (EF) for HAPs elements arsenic (As), cadmium (Cd), lead (Pb) as well as, mercury (Hg), again. Table 3 provides the emission factors for the stated fuels but also includes values for Municipal Solid Wastes (MSW) combusted in boilers before pollution controls (noted as "uncontr.")

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**Technical Review:** One of the HAP metals (mercury) has already been discussed in Section 4 above as its emission factor (3.96 E-05 lb/mm Btu) was listed in the final row of Table 1, but a different emission factor for mercury (7.97 E-05 lb/mm Btu/hr) is listed in Table 3 for the metal found in the NHSM. If this emission factor is used to calculate the boiler's releases, the Mercury releases would be higher than determined in the above Section 4 and found to be 67.8 pounds per year or 171% above the statutory limit for Maine of 25 pounds per year.

If we calculate the other HAPs using the values provided in Table 3 and (in the format boiler heat input x number of boilers x EF x 8,760 hours x 1 Ton/2000 # = TPY), focusing only on the data in the NHSM column, the following results were determined:

Arsenic: 0.29 tons per year (48.86 x 2 x 6.87 E-04 x 8,760 x 1/2000)  
Cadmium: 0.079 tons per year (48.86 x 2 x 1.85 E-04 x 8,760 x 1/2000)  
Lead: 2.49 tons per year (48.86 x 2 x 5.81 E-03 x 8,760 x 1/2000)

While the data presented by the applicant is confusing/not consistent between the 2 tables in the same application (example Mercury), the calculations in both cases show that the Hampden project has the potential to emit 171% over the Maine State limit of 25 pounds per year.

- 6.1. Given the technical analysis provided above, will the DEP conclude that the Fiberright project in Hampden, without controls to reduce pollutant levels by 90%, is in violation of the statutory limit for the HAP mercury under 38 MRSA ¶ 585-B set at 25 pounds per year (ppy)?
  - 6.2. Can the applicant explain the confusing/inconsistent data presented in the various tables submitted in the original AEPA and the various supplements that have been provided to the Maine DEP?
  - 6.3. Can the applicant provide a comparative table explaining the differences between the emission factors presented in the various NHSM tables and the emission factors used in the HAPS calculation tables submitted in BACT tables in the original AEPA and the supplemental?
7. The focus in this section of the technical analysis of the CES/MRC/Fiberright air emissions permit application is on the various values used for "operational hours of the boilers" by the applicant. This phrase seem to be different from the "hours that the facility" may be operating. This section also identifies variations in the reported "heat input" figures for the boilers (mm Btu/hr), different manufacturer emission factors (AP - 42 1.4) used at various times, the continued reference in the latest BACT analysis text (46 page supplement of Dec 14, 2015) of the boilers being fed Post Hydrolysis Solids (PHS) and "shredded wood fines" and the continued reference to "A summary of expected emissions included in Attachment B of the license application." If they are referencing the June 15, 2015 Attachment B, we all know that has undergone repeated modification. (After one has completed their review of the discrepancies highlighted below, and the technical analysis and arguments/issues identified above by this reviewer, a completely new/final AEPA should be submitted to the public to correct the record by the applicant.)

**Applicant's Information:** In the June 15, 2015 AEPA, CES/the applicant's use numerous operational hours for the Hurst boilers in order to calculate the Potential to Emit (PTE) estimates that should also be consistent with and reflected in the Boiler Performance Summary (BPS) calculation pages for the boilers.

It would be beneficial to the general public and the reviewing agency to understand the operational aspects of the two close-coupled gasifier/boilers manufactured by Hurst Boilers, Inc. that "will be used to produce steam for process and building heat and for power generation by steam turbines". (page 3 - Dec. 14, 2015 Boiler BAT Analysis Rev. 4). It appears that the applicant does not plan on providing all the energy demand for the plant, all the time from these two boilers. Fiberright has previously reported to the Maine DEP that "The amount of electricity and heat energy generated by the biomass combustion is

sufficient to provide the energy demand for the plant” (See Appendix A page 7 – of “Fiberight Process Description”, Memo to Karen Knuuti, Maine DEP Regional Office, from Municipal Review Committee, September 26, 2014) and previously reviewed and highlighted/included in the Town of Orrington report of October 27, 2015 on the University of Maine Forest Bioproducts Research Institute (FBRI) report on Fiberight.

**Technical Review:** Without a clear statement from the applicant or a specific permit condition from the Maine DEP limiting the boilers operating hours, the basis for the calculating the Potential to Emit various air pollutants should be based on the total hours available to operate the boilers in a year (8,760). Looking at the information provided in the June 2015 AEPA, CES starts with boiler operational projections for the Post Hydrolysis Solids and wood (initially) fed into the 2 Hurst gasifier boilers, with 35 days of downtime. It is not known what provisions they have, if any for steam/power/heating etc. for those down days, since no electrical supply/energy balance data has been provided by the applicants despite many requests for such data from this technical reviewer and other parties.

If we again look at the critical air pollutant, carbon monoxide that was first discussed in section 2 above and completely ignores the technical arguments that were presented to justify use of an emission factor 2.73 higher than CES used, we left with a PTE level in June starting at 41.91 TPY per boiler. The other quantity from the remaining source of CO was listed as 0.19 TPY from the Flare unit for a total of 84 TPY of CO. As the DEP review process continued, the applicant was required to better define its emission sources/quantities under upset conditions, or to upgrade the Best Available Control Technology (BACT) to address regulatory concerns. A thermal oxidizer hybrid system (TOx) was added and the applicant stated that it would no longer be burning wood waste with the Post Hydrolysis Solids in the gasifier (presumably since it would make the boiler subject to Commercial and Industrial Solid Waste Incineration (CISWI) regulations.

Each new supplemental report published on the DEP website included revisions to the PTE and BPS calculations and resulted in increased annual total CO levels, increasing to 92.9 Tons Per Year (TPY) after the shredded waste wood component fed to the gasifier was dropped in mid-November. By the time the December 1, 2015 supplement was posted on the DEP website, CES had increased the boiler uptime to the maximum of 8,760 hours, as listed in the PTE calculation sheets for each boiler (See Deliverable 4, 2015), which, in my view is consistent with the intent of calculating the maximum potential to emit. The applicant had to again adjust emissions from the gas flares/TOx hybrid for the Anaerobic Digester operation between Dec 1, 2015 and Dec 14, 2015. The projected Flare emissions of CO shot up from 0.09 TPY to 6.91 TPY, and the Total CO emissions would have exceeded 100 TPY if the Boiler operational hours remained at the total number of available hours in a year. As a result, it appear that CES was forced to change/cut each boiler operational period from the maximum available hours in a year by 5%, and to switch fuels to natural gas only to keep the annual CO emission limit under 100 tons.

Summary tables of the various “operational hour” figures used from the original AELA submittal through to the numerous revisions that were presented on the DEP website supplements follow:

**Table 1.1: Boiler Operational Hours in PTE vs. BPS Calculation Sheets**

June 15, 2015 – Attach. B	PTE Boilers 7,920 hours (330 days) (No BPS provided)
Sept. 21, 2015 – Rev. 1	PTE Boilers: 7,920 hrs vs. BPS: 7,884 hours (328.5 days)
Nov. 11, 2015 – Rev. 2*	PTE Boilers: 8,760 hrs vs. BPS: 7,920 hours (330 days)
Dec 1, 2015 Deliverable 4 & 5	PTE Boilers: 8,760 hrs vs. BPS: 7,920 hours ( “ “ )
Dec 14, 2015 – PTE Boiler 4:	8,322 hrs (346.8 days) (5% reduction in Boiler operational hours)
Dec.14, 2015 – BACT Rev 2	Implied 8,322 hrs, but no BPS calculation page provided.

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- 7.2 Given the technical review above, will the DEP require the applicant to resubmit a completely new/final AEPA with the accurate calculation sheets submitted, with the correct heat input numbers, the correct emission factors, and a clear statement of boiler operational hours so that a correct/understandable record is available to the public?
- 7.3 While one may conclude that these differences seem small and insignificant, they are not insignificant. Using the applicant's own figures, it is apparent that the potential to emit limit of 100 or more tons of CO will bring the project into the category of a Major Source of air pollutants. Does the Maine DEP conclude the same?



# Hampden Public Safety

Emergency Services Working Together

106 Western Avenue  
Hampden, ME 04444



Phone: 207-862-4000

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<https://www.facebook.com/hampdenpublicsafety>

## MEMORANDUM

COPY

To: Mayor David Ryder  
Members of the Hampden Town Council  
Chairman Peter Weatherbee  
Members of the Hampden Planning Board

From: Myles Block, Code Enforcement Officer 

Date: April 20, 2016

Re: Upcoming Board of Appeals Meeting

Pursuant to 30-A M.R.S. § 4353 this memorandum is to notify the Town Council and Planning Board that there will be a Board of Appeals meeting Monday, May 9, 2016. The meeting and public hearing will be held at 6:00 pm in the Council Chambers of the Hampden Municipal Building. The Board will consider the following item:

### Public Hearing:

Application for a general variance has been made by Howard and Karen Day regarding property located at 236 Main Road South, further identified as assessor's tax map 06 lot 050 for a decrease in setback requirements from 30 feet to 20 feet. The subject property, owned by Howard and Karen Day is located in the Residential A and Rural zoning districts. The Board of Appeals will consider this item pursuant to Articles 6.2.2 of the *Town of Hampden Zoning Ordinance* and the *Town of Hampden Board of Appeals Ordinance*.

cc: Lt. Jason Lundstrom, Fire Inspector  
Jared LeBarnes, Building Official  
Dean Bennett, Community Development Director  
Joseph L. Rogers, Director of Public Safety  
Angus Jennings, Town Manager  
File (06-0-050)

Police • Fire • EMS  
Code Enforcement  
Building Inspection  
Fire Inspection  
Local Health Office

Joseph L. Rogers  
Director of Public Safety

Kandy A. McCullough  
Administrative Assistant

### Police

T. Daniel Stewart  
Sergeant/SRO

Scott A. Webber  
Sergeant

Christian D. Bailey  
Sergeant

Joel Small  
Police Officer

Joseph D. Burke  
Police Officer/MDEA

Benson G. Eyles  
Police Officer

Shawn F. Devine  
Police Officer

Marc Egan  
Police Officer

William Miller  
Police Officer

Jeffrey L. Rice  
Police Officer

### Fire

Jason Lundstrom  
Lieutenant/Fire Inspector

Daniel Pugsley, Jr.  
Lieutenant/Paramedic

Matthew St. Pierre  
Lieutenant/Paramedic

Myles Block  
CEO/Paramedic

Jared LeBarnes  
Building Inspector/Paramedic

Joseph Dunton  
Paramedic/Chaplain

Matthew Thomas  
FF/Paramedic

Shaun McNally  
FF/Paramedic

Aaron Jellison  
FF/Paramedic

Matthew Roope  
FF/Paramedic