

# SPRINGFIELD BOARD OF PUBLIC HEALTH

## FINDINGS and DECISION

Regarding potential site assignment under M.G.L. c. 111 § 143, for a BioMass Power Plant project at WS Cadwell Drive - 1000 Page Boulevard, by Palmer Renewable Energy LLC.

DATE: August 17, 2016

## PROCEDURAL HISTORY

1. Notice was given that the Springfield Public Health Council Board (“SPHC Board”), acting in accordance with the provisions of Chapter 533 of the Acts of 1980 and Massachusetts General Laws Chapter 111 § 143, scheduled a public hearing on January 20, 2016, to determine whether or not to recommend to the Commissioner of Public Health (“the Commissioner”) that a site assignment hearing be required for a Biomass Energy Plant project (“the Project”) by developer Palmer Renewable Energy, LLC, 40 Shawmut Road, Suite 200, Canton, Massachusetts (“PRE”). A copy of the notice documents are attached as Exhibit 1.
2. A public hearing was held by the SPHC Board on January 20, 2016, at the auditorium at Central High School. All testimony received at the hearing was transcribed and a copy of the transcript has been attached hereto and shall be incorporated herein as Exhibit 2. At the conclusion of the January 20, 2016, public meeting, the SPHC Board decided to foreclose receipt of further testimony from the parties or the public, and to keep the hearing open for the purposes of receiving additional written evidence to be considered. All written evidence received by the SPHC Board during the public hearing on January 20, 2016, is attached hereto and incorporated herein as Exhibit 3. All written evidence received by the SPHC Board in between January 21, 2016 and May 19, 2016, is attached hereto and incorporated herein as Exhibit 4.
3. The following individuals testified at the public hearing held on January 20, 2016:
  - a. Peter Durning, Esq. Mackie, Shea, O’Brien, P.C., on behalf of PRE
  - b. Dr. Dale Raczynski; Epsilon Associates, Inc.
  - c. Peter Valberg, of Gradient Risk Assessment
  - d. Thomas Mackie, Esq. Mackie, Shea, O’Brien, P.C., on behalf of PRE
  - e. Michaelann Bewsee, Stop Toxic Incineration in Springfield

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- f. Randy Stillwell
  - g. Sarita Hudson, Pioneer Valley Asthma Coalition
  - h. Donna Hawk, American Lung Association
  - i. Dr. Mathew Sadof, Pioneer Valley Asthma Coalition
  - j. Claire Miller, Tax Exemptions
  - k. Stuart Warner
  - l. Jessie Lederman
4. The following Board members asked questions at the Public Hearing held on January 20, 2016:
- a. Member Scavron
  - b. Member Carrithers
  - c. Member Franco
  - d. Member Jenkins
5. The following documents were submitted to the SPHC Board on January 20, 2016:
- a. Letter from Counsel for PRE dated January 20, 2016, inclusive of attachments
  - b. Pioneer Valley Asthma Coalition, Statement of Mathew Sadof, M.D., dated January 20, 2016
  - c. Letter from John Miller dated January 20, 2016
  - d. Memorandum from Stop Toxic Incineration in Springfield, Michaelann Bewsee, Arise for Social Justice, dated January 20, 2016, inclusive of attachments
  - e. Unsigned draft of Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs
  - f. BioMass Sustainability and Carbon Policy Study Executive Summary, Manomet Center for Conservation Sciences, dated June 2010.
  - g. Statement of Dale T. Raczynski, P.E.
  - h. Chapter 533 of the Actions of 1980
  - i. Portion of MassDEP letter dated May, 16, 2011
  - j. Memorandums on Board of Health Responsibilities and Public Health Council Powers
6. The following documents were submitted to the SPHC Board in between January 21, 2016 and May 19, 2016:

- a. Letter from Stuart and Lee Ann Warner, Stop Toxic Incineration in Springfield, dated January 21, 2016
  - b. Article from Gazettenet.com dated December 21, 2015
  - c. Letter from Stuart and Lee Ann Warner, Stop Toxic Incineration in Springfield, dated January 21, 2015 (typographical error - assumed to be intended as having a date of January 21, 2016)
  - d. Letter from Counsel for PRE dated February 3, 2016, with Supplemental Statement of Dale T. Raczynski, P.E.
  - e. Letter from Palmer Renewable Energy, dated October 30, 2015
  - f. Memorandum to EPA from PFPI dated January 21, 2016
  - g. Letter from Cheryl Sbarra, Massachusetts Association of Health Boards, dated February 13, 2016
  - h. Letter from Robert Porth, dated March 12, 2016
  - i. Letter from Kenneth McLaurin, dated March 12, 2016
  - j. Letter from Regina Griffin, undated
  - k. Letter from Jim and Mable West, dated March 12, 2016
  - l. Letter from Jacqueline D. Porter, dated March 12, 2016
  - m. Letter from PRE dated February 10, 2016, with Second Supplemental Statement of Dale T. Raczynski, P.E.
  - n. Letter from American Lung Association, dated January 20, 2016
  - o. Email from Claudia Hurley, dated January 27, 2016
  - p. Email from Laurel Rancitelli, dated January 27, 2016
  - q. Email from Cheryl A. McCollum, dated January 27, 2016
  - r. Email from unegbu@msn.com, dated January 28, 2016
  - s. Memorandum from Partners for a Healthier Community, Inc. dated February 2, 2016
  - t. Letter from STEM Middle Academy, dated January 20, 2016
  - u. Email from Mary Booth, dated January 25, 2016
  - v. Email from Concerned Citizens of Plainfield, dated January 26, 2016
7. On May 19, 2016, the SPHC Board voted unanimously to close the public hearing and move into deliberations, stating that it would no longer be receiving evidence on the matter.
  8. On June 15, 2016, after deliberations and consideration of all evidence received during the public hearing, the SPHC Board voted 6-1 (with 1 abstention) in favor of a motion to recommend to the Commissioner that a site assignment hearing under Massachusetts General Laws Chapter 111 § 143 be required for the Project.
  9. Under its incorporating acts, Chapter 533 of the Acts of 1980, the SPHC Board is

constituted of 15 members, with a statutorily required quorum of 8. In accordance with Massachusetts law, motions of the SPHC Board require 8 yeas to carry, regardless of the number of members actively appointed to the Board. See M.G.L. c. 30A sections 18-25 (Massachusetts Open Meeting Law); See also Massachusetts Attorney General Open Meeting Law Guide; See also *Gamache v. Town of Acushnet*, 14 Mass. App. Ct. 215 (1982).

10. The Commissioner of Public Health in Springfield (“the Commissioner”) received and reviewed all evidence and documents provided to the SPHC Board at the January 20, 2016, Public Hearing, and all exhibits and documents submitted to the SPHC Board after January 20, 2016 and before May 19, 2016, and has incorporated that information into this decision. In addition to the evidence received and recommendations made by the SPHC Board during the hearing, the Commissioner received and reviewed the following Exhibits, which are attached here to and incorporated herein:
  - a. Letter from PRE dated June 21, 2016, inclusive of attachments (Exhibit 5)
  - b. Findings and Decision of the City Council dated May 23, 2011, inclusive of exhibits and attachments (Exhibit 6 – copy available at the City Clerk’s Office, 36 Court Street, Springfield, Massachusetts)
  - c. Letter from Arise for Social Justice, dated July 15, 2016, inclusive of attachments (Exhibit 7)
  - d. Response Letter from MassDEP dated May 16, 2011 (Exhibit 8)
  - e. 2014 Air Quality Report from MassDEP, dated June, 2015 (Exhibit 9)
  - f. Response Letter from MassDPH dated May 17, 2011 (Exhibit 10)
  - g. Transcript from January 20, 2016 SPHC Board public hearing (Exhibit 2)
  - h. Transcript from June 15, 2016, SPHC Board meeting (Exhibit 11)
  - i. SPHC Board Meeting Agendas, Notices, and Sign-in sheets from January 20, 2016, February 24, 2016, March 16, 2016, April 27, 2016, May 19, 2016, and June 15, 2016 (Exhibit 12)
  - j. Letter to MassDEP and Mass DPH from the Commissioner, dated March 29, 2011 (Exhibit 13)
  - k. MAHB memorandum titled, “Duties of Local Boards of Health in Massachusetts” (Exhibit 14)
  - l. Chapter 12 of the Massachusetts Board of Health Guidebook, dated July 2009 (Exhibit 15)
  - m. Letter from MASSPIRG Counsel, dated July 15, 2016, (Exhibit 16)
  - n. MEPA Certificate on the Notice of Project Change, dated November 19, 2010 (Exhibit 17)
  - o. MassDEP Conditional Air Quality Permit, dated June 30, 2011 (Exhibit

18)

11. All exhibits and documents reviewed by the Commissioner have been filed with the City Clerk with a copy of this decision.
12. A review of the public record indicates that on September 30, 2010, two years after obtaining a Special Permit from the City of Springfield City Council in September 2008, PRE submitted a Notice of Project Change (“NPC”) for the Project and provided a copy to the City pursuant to the Massachusetts Environmental Policy Act. (See Exhibit 6)
13. The NPC was filed for a change in fuel type from 900 tons per day (“TPD”) of wood fuel consisting of 700 TPD of recycled wood (including from construction and demolition debris) and 200 TPD of green wood chips, to a maximum of 1,184 TPD of green wood chips only. Under the revised project, green wood chips (“GWC”) will be fed into an advanced stoker boiler, steam from the boiler will feed a steam turbine to generate 35 MW (net) (down from original 38 MW reported) of electricity. (See Exhibit 6)
14. The City retained Vanasse Hangen Brustlin, Inc. (“VHB”) to perform a professional and independent technical review of the NPC prepared by Epsilon Associates, Inc. for the proposed PRE Project located at 1000 Page Boulevard in Springfield, Massachusetts. (See Exhibit 6)
15. This VHB review focused on the technical information presented in the NPC that had been submitted under the Massachusetts Environmental Policy Act (“MEPA”). In addition, VHB offered its findings and provided comments on the project for the City to consider during the MEPA and the local permitting process. (See Exhibit 6).
16. In the review of the materials submitted, VHB found that the study is professionally prepared and is technically accurate in the means and methods used to prepare the report. VHB, acting on behalf of the City of Springfield offered comments to the City for consideration during the MEPA and local permitting process, which were then submitted to DEP for consideration in October of 2010. (See Exhibit 6)
17. The Secretary of Energy and Environmental Affairs issued a MEPA Certificate on the Notice of Project Change on November 19, 2010, in which he determined that

the changes did not increase the environmental impacts of the project, but rather reduced them, and that therefore no EIR was required. (See Exhibit 17)

18. MassDEP has also issued a conditional approval of an Application for Air Quality Permit Non-Major Comprehensive Plan Application by PRE for the Project. (See Exhibit 18)
19. A public hearing on the Draft Air Quality Permit was held by MassDEP on Tuesday, April 5, 2011, in Springfield, and comments were accepted until Friday, April 29, 2011. The City of Springfield submitted a comment memorandum to DEP on the above referenced Application for Air Quality Permit, prepared by VHB on behalf of the City of Springfield under the Commonwealth's Air Pollution Control Regulations (301 CMR 7.00) for the proposal by PRE to construct the Project. Project opponents also submitted comments to MassDEP during this process. (See Exhibit 6)
20. As initially proposed, the plant was classified as a "major source" under DEP's air regulations since it had the potential to emit greater than 50 tons per year of nitrogen oxides (NOx) and greater than 100 tons per year of carbon monoxide (CO). As part of the Notice of Project Change, PRE submitted to DEP, a revision to its originally-submitted comprehensive plan application that incorporated reductions for several air contaminant emission rates as the result of the best available control technology review process. This changed the facility's classification to a "non-major source", since the potential to emit any regulated air pollutant will not exceed any applicable major source threshold. (See Exhibit 6)
21. In issuing a Conditional Approval, MassDEP indicated it has reviewed the PRE proposal for compliance with the following applicable air pollution control regulatory requirements: MassDEP Air Plan Approval Requirements; National Ambient Air Quality Standards (NAAQS); MassDEP Noise Requirements; New Source Performance Standards (NSPS); Clean Air Interstate Rule (CAIR); Reporting of Greenhouse Gas Emissions to Regional Registry; Title IV Sulfur Dioxide Allowances and Monitoring; Title V Operating Permit. MassDEP's analysis under each of these categories is provided in greater detail in the permit document. (see Exhibit 18)
22. In summary, DEP's Air Quality Permit states that the Project will meet all applicable permitting standards required for issuing the Conditional Approval, including compliance with the National Ambient Air Quality Standards (NAAQS). The NAAQS are stringent health-based standards established under

the Clean Air Act (CAA) that are designed to preserve public health and protect sensitive subpopulations, such as people with diseases (e.g. asthma, cardiovascular disease), children and the elderly. (see Exhibit 18)

23. DEP's Air Quality Permit also states that PRE has substantially reduced the emissions profile of the facility that is the subject of the Conditional Approval (which would be limited to using primarily green wood chips derived from tree pruning, land clearing, etc., but not forestry operations) compared to its initial submission which used C&D wood as a fuel. The revised proposal meets or exceeds all applicable standards for emissions of air pollutants and, when compared to the prior proposal, reduces most hazardous air pollutants (HAPs) emissions, as well as emissions of heavy metals and reduces nitrogen oxides (NOx) by over 72%, and carbon monoxide (CO) by approximately 48%. (see Exhibit 18)
24. The MassDEP Air Quality Approval contains a comprehensive set of conditions, reporting obligations and mitigation measures, including state-of-the-art air pollution control technology and development of fuel specifications to minimize pollutant levels. According to the Conditional Air Quality Permit, MassDEP believes that the terms and conditions specified herein will ensure the ongoing compliance of the facility with all appropriate and applicable standards. (see Exhibit 18)
25. As noted in the MEPA certificate, the area that this project is located in includes sensitive populations that suffer disproportionate health impacts. As articulated in the comments from the Massachusetts Department of Public Health/Bureau of Environmental Health (DPH), during the MEPA process, health outcome data for the Springfield area indicate that there is an elevated disease burden in the community related to existing background conditions. The area has also been identified as an Environmental Justice community. (see Exhibit 17)
26. In 2009 the neighborhood council of East Springfield gave its approval for the Project. To the best of the Board of Public Health's knowledge, said approval remains in effect to date and has not been rescinded.
27. As noted by MassDEP in its 2014 Air Quality Report, air quality in Springfield has improved steadily over the course of the past twelve years. (See Exhibit 9).
28. Throughout deliberations, the Commissioner has been mindful of the statements of the project proponents, project opponents, MassDEP, MassDPH, SPHC Board

members, and the comments of the general public, made at public meetings of the SPHC Board.

## FINDINGS

### A. General

1. The property in question is currently zoned Industrial A and is located in an area which has a mix of commercial, industrial and residential uses. PRE has submitted plans to the City that indicate that the new energy plant will be located on the northern section of the property in question. The plant plans to use an advanced stoker boiler to be housed in an acoustically treated building. The plant will be powered by wood fuel, comprised entirely of green wood chips. (See Exhibit 6)
2. As stated above, the site plan indicates that the new plant will be located on the northern half of the property. This will encompass approximately seven (7) acres of the existing thirteen (13) acre site. As can be seen on the attached plans, the operation is made up of several components including a screen/grinder building, storage shed, air cooled condensers, boiler and smoke stack. Other ancillary equipment will include silos for lime, carbon, ash and a double walled aqueous ammonia tank. (see Exhibit 6)
3. The largest building on the site will be the stoker boiler which will be located in an acoustically treated building. The structure will have a total height of 110 feet. In addition to the building there will be a smoke stack that will have a total height of 275 feet. (see Exhibit 6)
4. It is noted that a large row of mature trees currently run the length of the property along Cadwell Drive. These trees help to provide a significant buffer to the abutting residential dwellings. As part of the proposed construction, the developer has indicated that this row of vegetation will remain. (See Exhibit 6)
5. One of the concerns expressed by project opponents seeking site assignment is the potential traffic impacts that this new development would present. The main access to this development will be off Cadwell Drive via Page Boulevard. Due to its location, this site can be accessed by two routes. Route #1 would be Interstate 291 to Page Boulevard to Cadwell Drive. Route #2 would be to utilize the Chicopee exit on Interstate 291 proceeding to Worcester Street and Cadwell Drive. After a full review by the City of Springfield Department of Public Works, it was determined that Route #1 would be the best option as there are issues with



the intersection of Worcester Street and Cadwell Drive. Additionally, Springfield DPW determined the amount of increased traffic would not significantly impact the Page Boulevard intersection. The developers have agreed to review the traffic patterns with the City and the neighborhood representatives within six (6) months after the plant is in operation. (See Exhibit 6)

6. Once the trucks are on Cadwell Drive, there were a number of discussions as to how trucks will access the property. One of the major concerns was to ensure that adequate room was created along Cadwell Drive to accommodate the increase truck traffic and potential stacking of vehicles. This is being accomplished by creating a one-way interior circulation system on the site. Trucks will enter the site from a curb cut located at the northern section of the property and exit at the existing curb cut closer to Page Boulevard. Additionally, a left-hand turn lane will be created which will allow trucks to pull off the travel lane when turning into the site. The left-hand turn lane will be long enough to accommodate several vehicles. The existing curb cut at the southern portion of the site will be modified to allow for trucks to safely exit the property. It should also be noted that additional traffic measures have also been installed on Cadwell Drive which will help to alleviate congestion. (See Exhibit 6).
7. Due to the fact that this development directly abuts a residential neighborhood, another concern expressed by project opponents has been about the level of noise that will be generated from this new facility and from vehicle traffic. The developer has submitted documentation indicating that the plant will meet the MassDEP requirements at all locations around the plant except for the abutting property to the north and the property to the west. The property to the north is a manufacturing operation and the property to the west is an electrical switching station. As per the letter attached to the City of Springfield Planning Staff analysis, the developer has committed to ongoing review of the noise issue and will address any and all issues as they arise. (See Exhibit 6)
8. The SPHC Board's June 15, 2016, motion to recommend site assignment did not carry. 6 yeas were received out of the statutorily required 8, and as such, the SPHC Board's motion to recommend site assignment failed, and no recommendation has made by the SPHC Board to the Commissioner as to whether to pursue site assignment under M.G.L. chapter 111 section 143 for the Project. (See Exhibit 11)

#### B. Site Assignment under M.G.L. c. 111 section 143

9. Under Massachusetts General Laws chapter 111 section 143, a city or town, acting through its public health authority has the statutory power to prohibit certain noisome or nuisance activities within its borders or to confine them to places assigned for such purposes. Section 143 authorizes site assignment to prohibit activities that may result in a nuisance or be harmful to inhabitants. According to the MassDPH's Board of Health Guidebook, Chapter 19, businesses that fall under the jurisdiction of site assignment under Section 143, "...include piggeries, slaughterhouses, junk yards, garbage and rubbish collection sites, and chemical plants." MassDPH BOH Guidebook, May 1997, p. 20-2.
10. M.G.L. c. 111 section 143 provides: "No trade or employment which may result in a nuisance or be harmful to the inhabitants, injurious to their estates, dangerous to the public health, or may be attended by noisome and injurious odors shall be established in a city or town except in such a location as may be assigned by the board of health thereof after a public hearing has been held thereon, subject to the provisions of chapter forty A and such board of health may prohibit the exercise thereof within the limits of the city or town or in places not so assigned, in any event. Such assignments shall be entered in the records of the city or town, and may be revoked when the board shall think proper.

The department of environmental protection shall advise, upon request, the board of health of a city or town previous to the assignment of places for the exercise of any trade or employment referred to in this section, and any person, including persons in control of any public land, aggrieved by the action of the board of health in assigning certain places for the exercise of any trade or employment referred to in this section may, within sixty days, appeal from the assignment of the board of health to the department and said department may, after a hearing rescind, modify or amend such assignment.

Notwithstanding any provision in section one hundred and twenty-five A of this chapter, this section shall apply to the operations of piggeries."

11. The site assignment statute in Massachusetts has existed in different versions for many years, dating back to the 1600's and has been construed to authorize local health officials to forbid the exercise of a number of different particular "noisome trades" anywhere in the city or town. Please see *Tuanton v. Taylor*, 116 Mass. 254 (1874); *Revere v. Blaustein*, 315 Mass 91, 95 (1943); *Waltham v. Mingnosa*, 327 Mass 250 (1951); *Pendoley v. Ferreira*, 345 Mass. 309 (1963); *Arthur D. O Little, Inc. v. Commissioner of Public Health & Hospitals*, 395 Mass 535 (1985).

12. If a site assignment is made by the local health authority, any person aggrieved by the action of the health authority may appeal from the assignment of the health authority to the Massachusetts Department of Environmental Protection.
13. In Springfield, the powers and authority of a board of health to site assign under section 143 are exercisable by the Commissioner of Public Health, as established by Section 5 of Chapter 533 of the Acts of 1980.
14. The record contains substantial facts which rightly can move an impartial mind, acting judicially, to the definite conclusions set forth in the findings as set forth in this decision.
15. Presently, there is no existing Public Health Council regulation prohibiting a Biomass Energy Plant in Springfield without a site assignment, though the Public Health Council may adopt such regulations in accordance with the terms and conditions of M.G.L. c. 111 section 31 which provides: "Boards of health may make reasonable health regulations. A summary which shall describe the substance of any regulation made by a board of health under this chapter shall be published once in a newspaper of general circulation in the city or town, and such publication shall be notice to all persons. No regulation or amendment thereto which relates to the minimum requirements for subsurface disposal of sanitary sewage as provided by the state environmental code shall be adopted until such time as the board of health shall hold a public hearing thereon, notice of the time, place and subject matter of which, sufficient for identification, shall be given by publishing in a newspaper of general circulation in the city or town once in each of two successive weeks, the first publication to be not less than fourteen days prior to the date set for such hearing, or if there is no such newspaper in such city or town, then by posting notice in a conspicuous place in the city or town hall for a period of not less than fourteen days prior to the date set for such hearing. Prior to the adoption of any such regulation or amendment which exceeds the minimum requirements for subsurface disposal of sanitary sewage as provided by the state environmental code, a board of health shall state at said public hearing the local conditions which exist or reasons for exceeding such minimum requirements. Whoever, himself or by his servant or agent, or as the servant or agent of any other person or any firm or corporation, violates any reasonable health regulation, made under authority of this section, for which no penalty by way of fine or imprisonment, or both, is provided by law, shall be punished by a fine of not more than one thousand dollars.

Boards of health shall file with the department of environmental protection,

attested copies of sanitary codes, and all rules, regulations and standards which have been adopted, and any amendments and additions thereto, for the maintenance of a central register pursuant to section eight of chapter twenty-one A.”

16. Absent any local regulation requiring site assignment, the Commissioner of Public Health in Springfield is empowered to issue an order to submit an application for site assignment.
17. In Massachusetts, the Courts have ruled that the provisions of M.G.L. c .111 section 143 are required to yield to more specific provisions of Massachusetts General Laws dealing with the same subject matter. *KR. Rezendes, Inc. v. Bd. of Health*, 2005 Massa Super LEXIS 298 (2005), where the more specific provisions of M.G.L. c. 111 section 150A were controlling over site assignment under section 143 where the subject of storage and stockpiling of coal ash or fly ash was concerned. There, the Court concluded that the statute placed jurisdiction in the hands of MassDEP in connection with the issuance of any orders seeking to abate a nuisance resulting from said use, and that the local board of health had no authority to issue cease and desist orders. In that matter, the Court awarded damages against the Board of Health in excess of \$3 million dollars for its wrongful actions seeking to invoke site assignment authority under M.G.L. c. 111 section 143.
18. Similarly, in *Clean Harbors of Braintree, Inc. v. Board of Health of Briantree* (409 Mass. 834 (1991)), the Supreme Judicial Court ruled that Section 143 site assignment was inconsistent with and did not apply where a more recently enacted statute dealing with the subject matter (hazardous waste facility siting) was enacted by the state legislature. In that matter, the Court held that “[s]ince the two statutes are inconsistent, we hold that section 143 does not apply to facilities governed by section 150B, because section 150B was enacted after section 143, we presume that the Legislature intended that section 143 not apply where in consistent with section 150B.”
19. In 1954, the Massachusetts Legislature enacted the Clean Air Act, which included a provision that has been codified in M.G.L. c. 111 section 31C, which specifically authorizes boards of health to regulate “atmospheric pollution, including, but not limited to, the emission of smoke, particulate matter, soot, cinders, ashes, toxic and radioactive substances, fumes, vapors, gases, industrial odors and dusts...and which constitute a nuisance, a danger to public health, or impair the public convenience and necessity.” Stat. 1954, c. 672 section 3.

20. M.G.L. c. 111 section 143 was most recently amended in 1902. The Massachusetts Clean Air Act (enacted in 1954) was amended in 1985 and again in 1995, and MassDEP issued regulations pursuant to its authority under M.G.L. c. 111 section 142A, relative to air plan approval, in the form of 310 CMR 7.00. Said regulation contains a comprehensive regulatory scheme to ensure that the Commonwealth and local jurisdictions comply with the stringent air quality requirements imposed by the federal Clean Air Act (42 U.S.C. sections 7401-7671), and the Massachusetts Clean Air Act (G.L. c. 111 sections 142A-J).
21. 310 CMR 7.02 requires new facilities of the classification of the Project, to receive a plan approval from the DEP confirming that the project compliance with the ambient air quality standards adopted by the Commonwealth. This approval process measures and maintains strict emissions standards to ensure air quality and public health.
22. Monetary damages or costs are provided for under M.G.L. c. 111 section 150 which states: “If the order is affirmed by the verdict, the board shall recover costs to the use of the town; if it is annulled and the petitioner has not been specially authorized by said board to exercise such trade or employment during the proceedings, he shall recover damages and costs against the town; if it is annulled and the petitioner has been specially authorized as aforesaid, or if it is altered, he shall not recover damages, and the court may render judgment for costs in its discretion.”
23. The Massachusetts Department of Environmental Protection has broad power to regulate air pollution (see M.G.L. c. 111 section 142A and 142B), and has promulgated general standards that prohibit emission “which cause or contribute to a condition of air pollution” (see 310 CMR 7.09(4)), and regulate the emission of dust, odor, and noise (see 310 CMR 7.09(1) and 310 CMR 7.10).
24. Under Section 143, MassDEP can play an advisory role upon request previous to a determination on site assignment by the local health authority. MassDEP has advised the Board of Public Health in this capacity, at the request of the Commissioner. (See Exhibits 8 and 10).
25. The Commissioner acted fairly and reasonably on the evidence presented, keeping in mind the objects and purposes of the Board of Public Health in Springfield, and the roles and authority of the Massachusetts Department of Public Health and the Massachusetts Department of Environmental Protection.

26. The Board of Public Health in Springfield, after receiving advice from MassDEP and MassDPH, is not aware of any instances where a site assignment under M.G.L. Chapter 111 section 143 was utilized for a Biomass Power Plant use such as the one contemplated in the Project.

#### F. Specific Findings

27. The Project proponents testified on January 20, 2016, and offered written materials during the SPHC Board's public hearing process, that they were opposed to the concept of the Springfield Board of Public Health holding a site assignment hearing for the Project under M.G.L. c. 111 section 143, and that such a hearing would be inappropriate based on accepted scientific data, established case law in the Commonwealth, and the fact that the Project has been approved by all required state and local regulatory bodies under the law.
28. Dale Raczynski, professional engineer with Epsilon Associates, on behalf of project proponents, testified to the air pollution and nuisance condition monitoring and controls for the Project, and MassDEP's Air Quality permit conditions. Mr. Raczynski also offered testimony on the Project being classified as a minor source of air pollution, with stringent controls and conditions put into place through an extensive public air permitting process. Mr. Raczynski further offered testimony explaining incorrect air emissions and nuisance data that project opponents had allegedly published and distributed to the public about the Project, and detailing how the Environmental Justice aspects of the Project have been fully addressed through the DEP air plan approval process and MEPA process. (see Exhibits 2, 3, 4, and 5)
29. Peter Valberg, with the Gradient Corporation and formerly with Harvard School of Public Health, on behalf of the project proponents, testified that the human health risk assessment performed and updated in 2016 for the Project was conservative, and the results, based on guidance from and review by MassDEP and MassDPH (Department of Public Health) were that the risks associated with the Project were well below existing guidelines. Mr. Valberg testified that while the outdoor air quality, particulate matter, of the Springfield area steadily improved from 2000 to 2012 and is far below the national standard, the number of asthma emergency room visits remained constant during that same period, showing empirical data that outdoor air quality and asthma rates are not directly related in the manner being argued by project opponents, and that while

particulate matter in the air can cause asthma, many factors are far more relevant than outdoor air, such as indoor air quality, the actual amount of particulate matter, and allergies of the person. Mr. Valberg also testified that in his professional opinion, the Project cannot be expected to result in a nuisance or be harmful to the public health, as the plant is very small in scale when factoring in the emissions and surrounding air quality levels, and is extremely well controlled. Mr. Valberg further testified that national ambient air quality standards are reviewed periodically and updated, and that no scientific data he is aware of shows that slight increases of Particulate Matter in the outdoor air at already low levels causes an increased risk of asthma. (See Exhibits 2, 3, 4 and 5).

30. Thomas Mackie, Esq., with Mackie, Shea & O'Brien, P.C. on behalf of the project proponents, testified that site assignment under M.G.L. c. 111 section 143 was not legally appropriate for the Project and that the City and the Board of Health would be subjecting themselves to undue liability in excess of \$200 million. Mr. Mackie also testified as to the background and history of the Project, the terms of PRE's Host Community Agreement with the City to offset any potential negative impacts associated with the Project, and the permitting processes that the Project has undergone. Mr. Mackie further testified that case law in Massachusetts states that when there is a more specific provision of General Laws Chapter 111 enacted after an earlier provision of Chapter 111, the more specific provision governs, and that this situation exists relative to General Laws Chapter 111, section 143 where examined in light of sections 142B and 31C of Chapter 111. (see Exhibits 2, 3, 4, and 5)
31. The opponents to the Project testified on January 20, 2016, and offered written materials during the SPHC Board's public hearing process, that there will be increased health risks and other adverse impacts to the neighborhood and surrounding area, associated with the Project, and based on those risks and impacts, the Project may result in a nuisance or be harmful to the inhabitants, injurious to their estates, dangerous to the public health as defined for the purposes of M.G.L. c. 111 section 143, and should require a site assignment hearing.
32. Michaelann Bewsee, with Stop Toxic Incineration in Springfield, a project opponent, testified that science is always ahead of regulations, that the Manomont study shows the negative carbon effects of burning wood, and that MassDEP's regulations are not protective of vulnerable populations in her opinion. Ms. Bewsee also testified that environmental justice and climate change issues should

be taken into account by the SPHC Board when considering whether to pursue a site assignment for the Project. Ms. Bewsee testified as to the vulnerable communities in Springfield, and that the controls proposed by PRE are not good enough to protect those populations. Ms. Bewsee further testified that there was no MEPA review for the Project. (See Exhibits 2, 3, 4, and 7)

33. Randy Stillwell, a resident of Connecticut and project opponent, testified as to the health problems and detrimental conditions present at a PRE power plant in his town in Connecticut. The SPHC Board was made aware during the public hearing that the power plant in Mr. Stillwell's community is not the same type of plant proposed for the Project. (See Exhibit 2)
34. Sarita Hudson, with the Pioneer Valley Asthma Coalition, and project opponent, testified as an advocate for a health impact assessment for the Project. Ms. Hudson testified as to the importance of the study to understand the impacts on health for environmental justice communities and for the health disparities seen in Springfield. Ms. Hudson further testified that the asthma rates in Springfield are high and that the public health concerns from the Project have not been adequately addressed through the approval process. (See Exhibits 2, 3, and 4)
35. Donna Hawk, with the American Lung Association of the northeast, and project opponent, testified and read into the record the contents of a letter from American Lung Association director of public policy, Casey Harvell, detailing that organizations concern about the potential negative impact of the Project. (see Exhibits 2 and 4).
36. Mathew Sadof, doctor with the Pioneer Valley Asthma Coalition, and project opponent, testified that the Project will potentially negatively impact sensitive portions of the population in Springfield suffering from asthma, and that a non-biased health impact assessment should be performed. Mr. Sadof also testified that the SPHC should investigate potential avenues for funding to mitigate the adverse impacts of the Project in the event that it moves forward. (See Exhibits 2, 3, and 4)
37. Claire Miller, with Tax Exemptions, and project opponent testified that because MassDEP has given an air permit for the Project, it doesn't mean that the SPHC has to find that no health impacts exist for Springfield. (See Exhibit 2)
38. Stuart Warner, of Amherst, and project opponent, testified that truck testing protocols are not sufficient and should be looked at by the SPHC in a site



assignment hearing.(See Exhibits 2, 3, and 4)

39. Jessie Lederman, of Springfield, and project opponent, testified about the authority of the SPHC, the importance of the Commissioner and the Board receiving unbiased legal advice, and the irrelevance of prior litigation on the Project concerning land use when deciding about site assignment and the public health. (See Exhibit 2)
40. A concern of project opposition was that, as indicated during the MEPA process and by project opponents in the SPHC Board's public hearing, as well as the Air Quality Permitting process, there are emerging issues as to BioMass Power Plant facilities and Health Risk Assessments associated with such facilities, which currently may not be sufficiently addressed under the framework of ongoing review. (see Exhibits 2, 3, and 4)
41. As noted in the MEPA certificate the NPC contained an analysis of health outcome data and risk based modeling that concluded that the facility will not adversely affect public health. Despite this study, PRE has committed to \$2 million to the City to mitigate the impact of the project, two-thirds of which (\$1.33 million) will be dedicated specifically to addressing existing health impacts in Springfield. (See Exhibits 17 and 6)
42. The MEPA certificate acknowledges that the project has made an "acceptable demonstration of compliance with the NAAQS. However, the MEPA certificate also acknowledges that "SIL's [Significant Impact Levels] have not been established for the revised 1 hour NO<sub>2</sub> and SO<sub>2</sub> standards. (See Exhibit 17)
43. As noted in the MEPA certificate, as a result of background concentrations and emissions from the facility, maximum PM<sub>2.5</sub> (fine particulate matter) concentrations could reach 29.9 µg/m<sup>3</sup>. Fine particulate matter, as noted in the MEPA certificate, has been linked to adverse health impacts in sensitive populations. EPA is considering revising the standards for PM<sub>2.5</sub> and, according to the MEPA certificate, this is the first project in the state "required to provide CEM for filterable particulate matter." (See Exhibit 17)
44. The subject of emission limitations was another area of concern of project opponents. The MEPA certificate, as a result of background concentrations and emissions from the BioMass facility, maximum PM<sub>2.5</sub> (fine particulate matter, which has been linked to adverse health impacts in sensitive populations) concentrations could reach 29.9 µg/m<sup>3</sup>. While the Conditional Air Quality Permit

is expected to limit emissions to  $30.0 \mu\text{g}/\text{m}^3$ , there is concern that the limit may not be low enough to prevent significant health impacts to sensitive populations in the Springfield Area, as emissions may exceed the limits based on the volume of actual fuel required to generate an electrical output of 35 MW, and the moisture level of the feedstock. Project opponents stated that additional studies or an updated Health Impact Study or Health Risk Assessment should be required to ascertain the necessary information. (See Exhibits 2, 3, 4, and 17)

45. The Commissioner sent a request for assistance, as well as comments as to the Conditional Air Quality Permit, to MassDEP and MassDPH about her concerns with the Project and potential site assignment, which referred to the comments by the City's consultant, VHB. (see Exhibit 13)
46. The DEP responded to the Springfield Health Commissioner (see Exhibit 8) and the DEP responded as follows:

“The National Ambient Air Quality Standards (NAAQS) are health based standards established by the Environmental Protection Agency under the Clean Air Act that are designed to protect sensitive populations such as people with diseases, children, and the elderly. The predicted impacts from the PRE facility indicate that the current  $35\mu\text{g}/\text{m}^3$   $\text{PM}_{2.5}$  NAAQS will be met by a comfortable margin. If the  $\text{PM}_{2.5}$  standard were to be revised and strengthened by EPA at some point in the future to the  $30\mu\text{g}/\text{m}^3$  (as MassDEP has previously requested the agency to do) then there is still a margin of additional protection provided beyond the inherent and conservative protections built into the standards. In addition you expressed a concern that the plant may not meet its emission limits and could cause an exceedance of the NAAQS. When MassDEP approves a new source of air pollution, the approval includes an array of systems to assure conformance with any emission limitation. They include continuous emission monitors, stack tests, and unannounced inspections. Please note that MassDEP's draft Plan Approval restricts the volume of fuel that can be consumed by the facility regardless of moisture content. When violations are detected, MassDEP has a number of enforcement tools it can utilize to assure compliance, including the imposition of monetary penalties. Finally, your request for a more detailed impact analysis (source interaction) has been submitted to the program for its consideration when evaluating comments for

the public hearing that was conducted on April 5, 2011.” (See Exhibit 8)

47. The MassDPH further responded to the Springfield Health Commissioner (See Exhibit 10):

“Your letter asks that MDPH under take a cumulative health risk assessment of the impact of pollution sources in Springfield to address existing air quality concerns, as well as concerns about whether actual emissions from the proposed facility may exceed those predicted by the proponent.

To clarify, a “cumulative health risk assessment” is not the same as a health impact assessment (HIA). The former evaluates possible human health risks that may result from estimated exposures from multiple sources (e.g. existing facilities near the proposed site, the proposed facility itself, diesel trucks, automobiles), and generally involves extensive modeling work that can be costly and resource intensive. An HIA can evaluate environmental concerns, however, in a far less resource intensive manner. An HIA also identifies the risks and benefits before decisions are made through evaluation of evidence based strategies and recommendations to promote health and mitigate impacts.

In the case of the proposed biomass project in Springfield, MDPH had concerns about the use of construction and demolition (C&D) waste as a fuel and based on those concerns designed an HIA to evaluate health impacts associated with the use of C&D waste. Once the proposed fuel source changed, the decision regarding the use of C&D for fuel and potential health impacts no longer applied and the HIA could not be carried out as designed. For that reason, we suggested that the HIA be modified to answer questions more generally related to environmental mitigation and/or actions that could be taken based on operational performance.

We regret we do not have the resources to conduct a comprehensive, cumulative health risk assessment for the proposed facility given the substantial level of effort such an assessment would require. However, as mentioned, we would still be happy to work with you and residents on a modified HIA.”

48. The Board of Public Health recognizes the role of MassDEP in monitoring and regulating air quality in the Commonwealth.
49. The Board of Public Health considers the existing certificates and permits obtained by PRE for the Project, as well as the regulations and opinions of state agencies, as creating a rebuttable presumption that requires the Board of Public Health to presume the Project will be in compliance with the criteria and air pollution standards of the Massachusetts Department of Environmental Protection, as well as the Environmental Protection Agency (“EPA”), and that said standards and regulations are appropriate, unless presented with evidence to the contrary.
50. PRE has publically responded to air quality concerns as follows:

“...impacts from particulates were fully evaluated in the Health Risk Assessment submitted by PRE with its Notice of Project Change and reviewed by the many state and local agencies charged with that duty. None of those agencies have taken issue with the conclusion of the Health Risk Assessment that the project will cause ‘no significant adverse effects on the health status of the local population.’”

As set forth in PRE’s May 5, 2011 letter to the City Solicitor, on April 22, 2011 the US EPA published its final Policy Assessment on Particulate Matter. The Policy Assessment does not recommend a reduction in the 24 hour average PM 2.5 National Ambient Air Quality Standards (NAAQS) below the existing  $35.30\mu\text{g}/\text{m}^3$  if the annual average is reduced to either 11 or 12. Thus, assuming that the EPA retains the existing  $35.30\mu\text{g}/\text{m}^3$  24 hour average NAAQS, PRE’s modeled maximum PM 2.5 concentration of  $0.5430\mu\text{g}/\text{m}^3$  represents 1.5% of the standard. Also, the total impact including background will be  $29.930\mu\text{g}/\text{m}^3$ , well below the existing and likely retained standard of  $35.30\mu\text{g}/\text{m}^3$ . If the standard is reduced to  $30\mu\text{g}/\text{m}^3$ , PRE’s impact will be a slightly higher percentage of the standard but when added to background monitored concentrations, will still be below the standard.

At over 458 pages, the Policy Assessment is part of the EPA’s review of existing NAAQS for particulate matter. In the Policy Assessment the staff recommends that the EPA reduce the annual

average NAAQS for PM<sub>2.5</sub> from 15 30µg/m<sup>3</sup> to a range of 13-11 30µg/m<sup>3</sup>. Assuming that the annual average is so modified, they do not recommend lowering the 24 hour average standard. Alternatively, if the annual average is set at 13, the staff recommends a reduction in the 24 hour average to 30. PRE's projected PM<sub>2.5</sub> impacts are a mere fraction of these limits and coupled with existing monitored background PM<sub>2.5</sub> in Springfield, would not result in an exceedance of any of these potentially lower NAAQS for PM<sub>2.5</sub>.

Fuel moisture content will not result in an exceedance of particulate matter standards. MassDEP's draft Conditional Air Plan Approval contains a strict limit on total fuel throughput, which in turn will limit the particulate emissions. The draft Approval also contains limits on particulate emissions that will prevent such exceedances, as well as continuous emissions monitoring and perimeter monitoring for particulates." (See Exhibit 6)

51. PRE further publically responded to this issue as follows:

"...the Health Risk Assessment prepared by PRE and submitted with the Notice of Project change specifically evaluated the impacts of respiratory irritants, including NO<sub>2</sub> and SO<sub>2</sub> and found as above 'no significant adverse effects on the health status of the local population.' PRE did perform and submit updated and revised air modeling for review by the MDPH and DEP. DEP is satisfied that all appropriate modeling analysis has been conducted properly as evidenced by issuance of a draft Conditional Air Plan Approval." (See Exhibit 6)

52. Project opponents raised concerns about the detrimental effect of the Project on air quality, specifically relative to asthma rates for sensitive populations (children, the elderly and individuals with respiratory conditions) within the City. (See Exhibits 2, 3, and 4).

"The neighborhood in which PRE proposes to build its incinerator is populated with people who are already more vulnerable to the effects of pollution, especially air pollution. Whether PRE meets DEP's air permit standards is irrelevant, as those standards are not sufficiently protective of vulnerable communities." (See Exhibit 3)

“The emissions from biomass include harmful particle pollution. While everyone is at risk from particle pollution, the youth, elderly, and those with pre-existing respiratory diseases like asthma, chronic obstructive pulmonary disease (COPD) are a greater risk. Massachusetts has higher asthma rates than the national average. When the Centers for Disease Control last estimated asthma prevalence among 38 states, including Massachusetts, the average for the 38 states was 9.0% while Massachusetts was 9.8%. For the same year, 2008, the Massachusetts Department of Public Health estimated the rate in Springfield to be significantly higher – 16.4%. These averages include many vulnerable children whose lungs are still developing.” (See Exhibit 4)

53. PRE responded to those concerns with the following:

"PRE has all along carefully evaluated the impact on asthma. As Sections 5-10 of Dr. Valberg's statement demonstrate, he assessed the impact of emissions from PRE on each of the several schools in the area of the project to ensure that they would not cause respiratory irritation. In addition to evaluating the public health impact of criteria air pollutants and assessing the chronic inhalation of non-cancer and cancer health risks from air toxics, Dr. Valberg performed an acute exposure evaluation for respiratory irritants. This included air emissions from the PRE facility stack as well as associated vehicle exhaust and fugitive dust emission sources. He concluded that the project's air emissions will not lead to adverse effects on the health of nearby residents, school children or sensitive populations. He also performed a detailed analysis of the baseline community health status of Springfield and nearby communities that included summaries of the rates of cancer, asthma, and cardiovascular disease, plus data on blood-lead levels. He took into account the specific local incidence in these health outcomes and the specific levels of expected impacts from PRE in concluding that 'the health risk assessment refutes any speculation that operation of PRE will affect community baseline health conditions.' Dr. Valberg revisited these analyses, local health statistics and air quality monitoring data for purposes of the PHC hearing. He concluded that the changes do not have a significant impact on the HRA results and conclusions, as maximum ground level concentrations from PRE emissions remain below levels of regulatory and health-effect concern. Dr. Valberg noted that the very significant improvement in Springfield's ambient air quality will result in better overall air quality as compared to the NAAQS now than when the project was permitted. Data presented by Dr. Valberg also demonstrate that there is not likely a link between asthma rates in Springfield

and ambient air quality. Absolutely no evidence to the contrary has been presented to the PHC. Thus...there is no foundation for finding that PRE triggers the requirement for a noisome trade site assignment because of air quality concerns." (See Exhibit 5)

54. Regarding potential site assignment under M.G.L. c. 111 section 143, the Springfield Health Commissioner sought advice from DEP on this issue and the DEP responded as follows:

"To the best of our knowledge no wood fueled facility has been regulated under M.G.L. c. 111, s. 143 since the adoption of M.G.L. c. 111, s. 142A –J and its companion regulation at 310 CMR 7.00. With respect to the "noisome" or "nuisance" concerns that you have raised in your letter, please note that the MassDEP draft Non-Major Comprehensive Plan Approval (Plan Approval) contains conditions that address these types of "noisome" or nuisance conditions including order, noise, and fugitive emissions." (See Exhibit 8)

55. Another area of concern raised by project opponents is that under the MEPA certificate, as a result of background concentrations and emissions from the BioMass facility, maximum PM<sub>2.5</sub> (fine particulate matter, which has been linked to adverse health impacts in sensitive populations) concentrations could reach 29.9 µg/m<sup>3</sup>. While the Conditional Air Quality Permit is expected to limit emissions to 30.0 µg/m<sup>3</sup>, there is concern that the limit may not be low enough to prevent significant health impacts to sensitive populations in the Springfield Area, as emissions may exceed the limits based on the volume of actual fuel required to generate an electrical output of 35 MW, and the moisture level of the feedstock. According to project opponents, additional studies or an updated Health Impact Study or Health Risk Assessment may be required to ascertain the necessary information. Further, a concern of project opponents is that there are no Air Quality analyses that include evaluations of the "typical load" or "low load" conditions at the proposed BioMass Plant, where lower emission rates occur, along with lower exit velocity rates and temperatures, potentially resulting in higher concentrations at receptor locations, and the more rapid descent of pollutants to ground level. According to project opponents, there is a need for additional air quality modeling to demonstrate that the project meets NAAQS standards under both "typical load" and "low load" operational conditions. (see Exhibits 2, 3, 4, and 7)

56. PRE has responded publically to this concern as follows:

“...partial load conditions of 75% and 50% were included in the ENF dated April 30, 2008 and in the original application dated November 20, 2008, and 100% load was found to be the worst case. The partial load conditions modeling information was available to the City Council at the time the Special Permit was issued. The current draft Conditional Air Plan Approval is based on an amended application dated September 30, 2010 which incorporated the earlier analysis. Further answering, page 23, Section H of the Conditional Approval describes the sources of hazardous air pollutants, including heavy metals emissions. The emissions rates were based on EPA-AP-42 as provided in PRE’s application which was included in the Notice of Project Change. The levels of metal in the GWC fuel are lower than they were for C&D wood as also was fully disclosed in the ENF that was before the City Council when it issued the Special Permit. With respect to copper in particular, the levels of copper in the fuel are expected to be much lower in GWC than in C&D fuel. The application at Table 4-6 provides the Threshold Exposure Limit for copper of 0.54 ug/m<sup>3</sup> and the predicted impact is 0.0029ug/m<sup>3</sup> or 0.4% of the standard. There is no need for a wood fuel limit on copper.” (See Exhibit 6)

57. Project opponents raised concerns about the impact of the Project on greenhouse gases and on climate change (See Exhibits 2, 3, 4 and 7).

“...the proposed biomass facility will make little or no contribution to the immediate GHG reductions that are needed by 2020 to meet the requirements of the GWSA-and indeed may actually increase carbon emissions in the short term...” (See Exhibit 7)

“Does the Public Health Council have a right to be concerned about the impact of climate change health effect? I would say that it does, and so does the Bureau of Environmental Health, Mass Dept. of Public Health. See document. In fact the Bureau intends to provide technical assistance to help Boards of Public Health address the health effects of climate change on their communities...The Commonwealth also recognizes that burning wood for energy is not carbon-neutral, emits greenhouse gas emissions, and thus contributes to climate change. See Manomet Study, commissioned by the Dept. of Energy Resources.” (See Exhibit 3)



58. PRE responded to this concern in the following manner:

“Greenhouse gases that PRE will emit and the specter of climate change were also raised in deliberations. It was falsely or mistakenly claimed that PRE did not evaluate the greenhouse gas impacts of the project including the truck traffic. Again, this is plainly wrong and contrary to the evidence. At the request of and following the direct instructions of the Executive Office of Environmental Affairs (EOEEA), the MassDEP and the Department of Energy Resources, PRE performed a greenhouse gas evaluation in compliance with the EOEEA’s Greenhouse Gas Policy. That analysis included PRE’s plant emissions and emissions attributable to truck traffic. The adequacy of PRE’s analysis and the MassDEP’s review of the analysis were fully litigated in the Adjudicatory Hearing in which project opponents Bewsee et al. were parties and are legally bound. The Commissioner of the MassDEP found that PRE and the MassDEP complied with all legal requirements respecting greenhouse gases and climate change impacts. According to the MassDEP Presiding Officer’s Recommended Final Decision After Remand filed with the PHC, ‘PRE performed a GHG analysis when it submitted its Notice of Project Change during the MEPA process that ultimately led to a number of provisions being incorporated into the Permit to increase efficiency and reduce GHG emissions.’ According to that Recommended Decision, the MassDEO ‘did analyze and incorporate measures to reduce GHG emissions.’ The Commissioner’s Final Decision fully endorsed these findings. See Final Decision at n.2.

Moreover, there is no merit to assertions that PRE’s biogenic carbon emissions will contribute to climate change. PRE will not be using the types of forest harvested wood that were the subject of the Manomet study and concerns about GHG impacts from other forms of biomass. The Manomet Study (Page 110) (and various other expressions by the USEPA and the European Union) have expressly acknowledged much lower or neutral GHG impacts from the types of wood PRE will use. PRE’s opponents presented absolutely no evidence to the contrary to the PHC nor is there any such information in the record before the PHC.

Finally, regardless of the adequacy of past reviews for greenhouse gas impacts, climate change concerns do not fall within the public health and nuisance ambit of G.L. c. 111 section 143. The Global Warming Solutions

Act cited at the deliberation session applies to state government agencies, not local boards of health. Moreover, greenhouse gas emissions are believed to contribute to climate change cumulatively on a global scale, and do not have direct local impacts. Whether PRE is built in Springfield or elsewhere, the climate change impact, which PRE asserts will be neutral or positive, will be the same. Moreover, there is nothing unique or unusual about PRE's location in Springfield, the local population or the nature of its operations that makes it any more or less 'harmful' than any other similar source of carbon dioxide emissions on the City, the Commonwealth, the United States, or the world for that matter." (See Exhibit 5)

59. The Conditional Air Quality Permit sets forth standards and conditions for the Project relative to air pollution. (See Exhibit 18)
60. Environmental Justice concerns raised by project opponents seeking site assignment (See Exhibits 2, 3, 4, and 7) were responded to by PRE in the following manner:

“Concerns over environmental justice were raised during deliberations, but they do not provide any basis for finding that the facility will be engaged in a noisome trade or justify directing PRE to pursue site assignment. PRE complied with the requirements of the state's Environmental Justice Policy during the permitting process for the air permit from MassDEP. Furthermore, standing alone, or taken in combination with the other concerns raised, the mere presence of an environmental justice community does not render the project either a nuisance or a threat to public health. Also, sentiment was expressed that the board of health require a rigorous health impact assessment. As PRE documented in the public hearing process, it has already prepared a Health Risk Assessment that rigorously assessed all of the public health impacts of the project and concluded that here project met all health risk based standards by a wide margin. There has been no demonstration of how a health impact assessment would advance the City's understanding of the health impacts of the PRE project within the confines of its statutory authority under G.L. c. 111 section 143, that go beyond the analysis already performed and accepted at multiple levels of government. Merely wishing that such an assessment could be performed is a far cry from finding that the project requires a c. 111 section 143 site assignment because of deleterious health impacts. Moreover, there is absolutely no legal foundation for requiring such as assessment.” (See Exhibit 5)

61. Project opponents advocating for site assignment raised concerns about the impacts of vehicle traffic on noise and air pollution on the community, and PRE responded in the following manner:

“It was claimed during deliberations that the environmental reviews did not reflect emissions from truck traffic. Nothing could be further from the truth. As specifically described in Section 40 of the Statement of Dale T. Raczynski P.E. and Section 12 of his Supplemental Statement filed with the PHC, Epsilon estimated the emissions from the truck traffic using the maximum daily traffic to the facility, combined it with projected emissions from the project site, including any fugitive emissions from the wood fuel handling and storage, added the combined projected emissions to worst case background air pollution and modeled the resultant ambient air quality impacts from all these emissions including trucks. As specifically described in Sections 6 through 8 of his Statement to the PHC, Dr. Valberg compared these worst case impacts in his Health Risk Assessment to health based standards and found that none of the levels pose any danger to public health or otherwise. Nobody from the PHC asked any truck traffic impact questions of either of these two experts during their oral presentation or thereafter that would indicate dissatisfaction with the amount of information available on this point. The opponents presented on contrary evidence. Anti residual concern is based upon pure speculation.

At the deliberation it was also asserted that the trucking industry is engaged in widespread violation of EPA’s diesel engine standards by disabling emissions control systems, analogizing from the Volkswagen situation and based upon member’s ‘search of the internet.’ No such information is in the record with regard to this assertion. Regardless, although PRE very thoughtfully agreed to very significant diesel retrofits as a part of its extensive mitigation package, Mr. Raczynski’s estimate of truck emissions was not based upon any such retrofit. Mr. Raczynski used emission factors for truck traffic that do not account for any enhanced retrofits, in order to present the worst case scenario. Mr. Raczynski ‘assum[ed] the worst case mix of heavy duty diesel vehicles...that would have been based on a worst case of uncontrolled diesel engines...’ Supplemental Statement at Section 12.

Moreover, truck traffic is simply NOT a ‘trade or employment’ within the meaning of G.L. c. 111 section 143. The statute clearly speaks to a ‘trade or employment’ established ‘in such a location.’ It specifically references

‘assigning certain places for the exercise of any trade or employment.’ Truck traffic is simply not amenable to such regulation. And if it is, there are many much larger sources of diesel truck emissions and truck traffic throughout the City of Springfield, including the school buses specifically referenced at the deliberation session, that contribute much more air pollution than the PRE project traffic would ever generate. There was absolutely no evidence before the PHC that truck traffic attributable to PRE is difference from or will be more harmful than any other truck or bus traffic in the City. Indeed, the only evidence that does exist is precisely to the contrary, that PRE fully evaluated the potential health impacts from truck traffic and despite a finding of no harm, agreed to extensive, costly and voluntary mitigation that the City has never required of any other business.” (See Exhibit 5)

62. The project opponents also provided testimony questioning the viability and environmental impact of green wood chips as a fuel source for the Project (See Exhibits 2, 3 and 4). PRE responded to this concern as follows:

“‘sustainability of green wood fuel sources’ for biomass plants or its effect on local timber and forest populations. PRE’s original proposal in fact included a significant quantity of green wood chips as fuel and thus, implications of taking green wood chips and infestation were before the City Council at the time the Special Permit was issued. As for potential non-native insect and disease infestation, all wood will be pre-processed (chipped) through grinding prior to arriving in Springfield. According to the USDA Animal and Plant Health Inspection Service and Massachusetts Department of Conservation and Recreation, grinding wood eliminates risks and deregulates infested trees. PRE will comply with all federal and state standards pertaining to highly destructive invasive species. Furthermore, PRE’s model is based on utilizing local sources of green wood chips within the geographic area. It should be noted that I90, 91, and 290 are high volume vectors for transporting timber, firewood, and wood products through the Springfield Area and pose a far greater forest insect and disease risk than transporting geographic green wood chips.

...PRE did perform and submit to the MDPH and MassDEP for review a Health Risk Assessment on green wood chips following the exact protocol laid out by both the MassDEP and the MDPH. As noted that Health Risk Assessment found “*no significant*

*adverse effects on the health status of the local population.”*

Green wood chips contain much lower concentrations of metals and other potentially toxic contaminants than previously proposed C&D wood. The Secretary of the EOEEA specifically found that PRE’s removal of C&D wood lowered the environmental impacts of the project and that PRE has gone beyond the regulatory requirements to assess those impacts.” (See Exhibit 6)

63. As noted in the MEPA certificate:

“The NPC includes a survey to evaluate the availability and distribution of feedstock and concludes that sufficient supply is available to meet the project demand. Project demand of 370, 592 tpy is based on the use of 184 tpd, 6 days per week. The Proponent has proposed a specification to limit contaminants in the wood. Fuel and that will form the basis for routine sampling and monitoring of the fuel to insure that it meets the specification. The fuel sampling and monitoring combined with continuous emissions monitoring of the exhaust stack from the boiler and air pollution control train will be required by MassDEP as part of the Air Plan Approval.” (See Exhibit 17)

64. The Conditional Air Quality Permit provides:

“To ensure compliance with the clean wood fuel specification, PRE will have a clean wood fuel monitoring and testing plan which will consist of supplier contracts, prequalification supplier testing, onsite wood fuel monitoring, onsite wood fuel testing and regular ongoing unannounced audits for each municipal wood facility and private wood yard facility. Prior to accepting any clean wood at the facility, all suppliers of clean wood fuel will sign a contract with PRE prohibiting any type of treated wood in the fuel supply to PRE. A copy of each signed contract will be provided to MassDEP which shall include the results of an initial wood sampling test for arsenic, chromium, lead and mercury for each municipal wood facility and private wood yard facility. PRE has developed a wood fuel specification with maximum concentration requirements for arsenic, chromium, lead and mercury, which will be used during prequalification supplier testing and onsite wood fuel testing. The maximum allowable concentrations for wood fuel from a municipal wood facility and private

wood yard facility, as delivered, will be 1.9 mg/kg of arsenic, 30.4 mg/kg of chromium, 31.6 mg/kg of lead and 0.1 mg/kg of mercury. Additionally, there will be an annual average, as delivered, for chromium and lead of 8.3 mg/kg and 6.7 mg/kg, respectively. The annual average will be based on the average of all composite wood samples collected in any 12 consecutive month period. The only clean wood fuel suppliers which MassDEP considers as exempt from the above monitoring and testing are those suppliers which will supply only whole tree fuel, tree trimmings and/or stump grindings that has not been collected from either a municipal transfer facility or a private wood yard facility. MassDEP reserves the right to modify the wood fuel supplier and onsite wood fuel sampling and testing constituents and frequency at any time. (See Exhibit 18)”

65. Project opponents raised concerns about the Commonwealth of Massachusetts no longer favoring biomass as a renewable energy source, shifting towards solar and wind as preferred sources (See Exhibit 2). PRE responded to this concern in the following manner:

“Whether or not PRE is entitled to treatment as a renewable energy resource is strictly a matter of state energy policy and has no bearing on whether it should be considered a nuisance or public health threat to the residents of Springfield.” (See Exhibit 5)

66. Project opponents raised concerns about the adequacy of planned fuel storage plans and the effect of odors from the Project on the public constituting a nuisance (See Exhibit 2). PRE responded to these concerns in the following manner:

“It was conceded at the deliberation that the concerns regarding fuel storage expressed by the project opponent from Plainfield, Connecticut were addressed by Mr. Raczynski’s evidence that the Plainfield facility fuel is very different construction and demolition debris as opposed to PRE’s green wood chips and that the Plainfield wood fuel storage area is not enclosed or controlled as the PRE greenwood chip storage will be. Thus, concerns cited regarding unanswered questions about ‘debris and smells’ have no foundation in the record before the PHC and were directly addressed by PRE’s wood fuel storage design and operational plan. Moreover, as amply demonstrated by Mr. Raczynski’s Supplemental Statement, fugitive impacts from the wood storage and handling were fully evaluated and mitigated by the use of an enclosed wood storage area and other preventative measures not employed on Plainfield. Any assertion to

the contrary is sheer speculation.” (See Exhibit 5)

67. Project opponents raised concerns that since 2009 studies have shown a link between pollution and health impact levels below the regulatory standards, and that the existing standards are not reflective of the scientific data presently available (See Exhibits 2, 3, 4, and 7). PRE responded to this concern in the following manner:

“Dr. Valberg testified directly at the public hearing that there are no such studies showing significant health impacts at the levels to be expected from PRE. The project opponents have come forward with no study showing such impacts and none has been cited by the PHC. Indeed, PRE provided the PHC with direct evidence to the contrary, including evidence of the much improved air quality in the Springfield area and the very low ambient impacts from PRE’s emissions compared to health based standards. As is fully documented in the MassDEP Comprehensive Plan Approval and the Final Decision in the Adjudicatory Proceeding provided to the PHC by PRE, in 2012 the EPA issued new National Ambient Air Quality Standards for particulate matter exposures on an annual average basis, that reflect the latest health science after a five year review process. During its permitting process, PRE used an even more stringent standard than the one finally adopted by the US EPA to demonstrate no ill health effect. Despite allusions to the contrary at the deliberation session, neither the MassDEP nor to the federal air pollution control regulations regarding the public health impact of permitting of a facility such as PRE have changed from those reviewed in PRE’s permitting process. PRE meets the most stringent of all current health based standards. Indeed the emissions from the PRE facility are so low and well controlled as to officially be considered ‘deminimis’ under applicable regulations.” (See Exhibit 5)

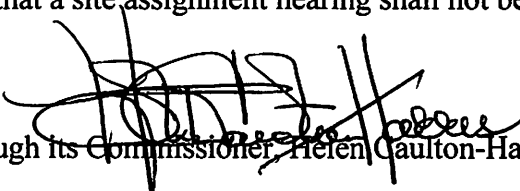
68. On July 25, 2016, the Commissioner met with MassDEP representatives to review materials submitted to the SPHC and the Commissioner, and to specifically inquire about the concerns raised by project opponents outlined above. According to MassDEP, it has been determined through the permitting process that the Project is not a noisome or noxious trade so as to constitute a public nuisance, that permitting for the Project includes strict limits, controls and monitoring relative to air quality, and that these controls are appropriate to address the concerns raised by project opponents. MassDEP representatives stated that incorrect assumptions appear to have been made by project opponents relative to the correlation between asthma and particulate matter. MassDEP representatives also explained that the

substantial impact on public health.

69. Based on all evidence received by the SPHC Board and the Commissioner, as set forth in this Findings and Decision, the Board of Public Health finds that the opponents of the Project submitted insufficient evidence to rebut the presumption that the proposed facility would be able to comply with EPA and MassDEP standards and permitting controls, and that those standards and controls are appropriate to protect the public health.
70. Based on all evidence received by the SPHC Board and the Commissioner, as set forth in this Findings and Decision, the Board of Health finds that the Project would be able to comply with the EPA and DEP standards, and that said standards, in combination with the monitoring and controls in place for the Project through its permitting and Host Community Agreement obligations, are appropriate for the protection of public health, and therefore adequate and appropriate facilities will be provided for the proper operation of the proposed use as set forth in the NPC.

### DECISION

In view of the foregoing, and in consideration of the above, the Springfield Board of Public Health hereby decides that there is presently insufficient cause to determine that the Project may result in a nuisance or be harmful to the inhabitants of Springfield, injurious to their estates, or dangerous to the public health, or may be attended by noisome and injurious odors, as those terms are defined for the purposes of site assignment under Massachusetts General Laws Chapter 111 Section 143. It is therefore decided that a site assignment hearing shall not be ordered for the Project at this time.

-Springfield Board of Public Health, by and through its Commissioner,  Helen Gaulton-Harris

Filed with the City Clerk on August \_\_, 2016 \_\_\_\_\_

City Clerk

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