

November 18, 2009

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Department of Environmental Protection
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VIA EMAIL AND USPS MAIL

**Re: Beneficial Use Determination (BUD) – Provisional Permit Approval
for Palmer Renewable Energy, LLC, DEP File #09-281-050**

Dear Mr. Hall:

We are pleased to submit these comments to the provisional “beneficial use determination” (BUD) for Palmer Renewable Energy, LLC’s (Palmer’s) proposed 38-megawatt (MW) incinerator-based energy plant, to be sited at 1000 Page Boulevard, near the intersection with Roosevelt Avenue and the Springfield Expressway (I-291), in Springfield.¹

I. INTRODUCTION

We respect the mission and employees of MassDEP and the Executive Office of Energy and Environmental Affairs (EOEEA), but we have become convinced for the reasons set out below that this particular adjudication is wrong on the law and dangerous on the facts.

This 16-page BUD would allow a private developer to build the first facility in the Commonwealth to incinerate large volumes of a subset of clean wood, contaminated wood, and synthetic materials from a construction and demolition (C&D) waste stream. Palmer would burn an average 700 tons per day (tpd) of a subset of this mixed waste stream.

Palmer’s supply would be sorted by workers subject to uncertain oversight and undefined training by unspecified suppliers that are not directly regulated by the Massachusetts Department of Environmental Protection (MassDEP) for this purpose. The sorting would be based purely on visual examination of a waste stream that is inherently variable and subject to unpredictable spikes in contaminants, reflecting the age and diversity of the structures built or demolished. The BUD is premised on a single “sorting study” of this waste stream that found average totals of arsenic-treated wood at levels more than 50% greater than the BUD threshold would allow,² and all parties agree that it is virtually impossible for workers to visually detect many forms of contaminated wood,³ and that even if they could Palmer must incinerate such material in order to

¹ For simplicity, these comments refer to this project as the “facility,” “project,” or “Palmer.”

² *Revised BUD Application*, at 5-1. The 3-day average is 3% by weight, whereas the sorting study found 4.86% by weight. *Provisional BUD*, at 3-4.

³ *Provisional BUD*, at 4 (“During actual operation, [the supplier] will instruct its workers to reduce the quantity of [treated] wood in the wood fuel product to the lowest practicable level by kick sorting and by not picking

be economically viable in practice. Sampling for such contamination, moreover, is limited and subject to Palmer's self-selection, with results reported to MassDEP months after incineration.

Even under "best case" conditions, Palmer will emit an array of harmful air pollutants – some of which are known to cause cancer and birth defects, hinder neurological development, and exacerbate asthma or blood-lead levels in children, in a city with asthma rates and blood-lead levels in children that are significantly higher than the state average (for lead, they are approximately double). The facility is sited for Springfield, the Commonwealth's third most populated city, and specifically within a densely populated low income community of color.

From the start, the public and this community were afforded inadequate notice, despite the fact that it is designated as an Environmental Justice community with rights to enhanced protections⁴ – not to mention that Palmer abuts a playground and family restaurant and is within a 5-mile radius of several dozen schools as identified by the Department of Public Health in a letter to a concerned local resident (enclosed).⁵ The BUD, by contrast, never attempts to set out a zone of impact for analysis of at risk populations (children, pregnant women, the infirm, and older people).⁶ It is unclear how the public can be protected, and how the incineration of this material can be for a "beneficial use," when the analysis lacks this essential component.

This BUD rests on a critical and faulty assumption of law, contravening the plain language and intent of a statute that serves as the foundation of MassDEP's solid waste program. In any other circumstance, an incinerator of this material would be forced to go through the more specific regulatory apparatus of MGL c. 111 § 150A and 150A1/2 and their implementing regulations found at 310 CMR § 16.00 *et seq.* This BUD, on the other hand, is based on the premise that the solid waste laws do not apply because Palmer's incinerator will *also* be connected to the regional power grid – via a stoker boiler feeding steam to a turbine generating an estimated net average 38 MW – *in order to create energy by incineration (which is statutorily cross-defined as "disposal" under MGL c. 111 § 150A) of a portion of the C&D waste stream.*

If upheld, this BUD would divest the local board of health of its *express statutory obligation to assign the site* and evaluate risks to public health, strip the Department of Public Health of its own statutory mandate to assist the local board of health, bypass meaningful environmental checks and avenues for risk analysis and public participation mandated by the law,⁷ and threaten Springfield, the Pioneer Valley, and a low income community of color already

identifiable treated wood (*however, some weathered treated wood may not be readily identifiable because the green color typically fades to a gray color similar to untreated weathered wood.*”).

⁴ See EOEEA, *Cities and Towns that Include Environmental Justice Communities*, at www.eot.state.ma.us/smartgrowth/07toolkit/pdf/ej_cities-towns.pdf.

⁵ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at table 1 and graph (schools within a 5-mile radius).

⁶ MassDEP established in its air permitting Conditional Approval a "receptor network" for modeling that extends out to 15 kilometers in an effort to "predict[] maximum air quality impacts associated with emissions" from the facility. *Conditional Approval* at 50. Comments to MassDEP's modeling will be submitted in that separate adjudication, but that modeling is not applied in a way that would consider at risk populations as required here.

⁷ While the BUD invites comments, it purports to "become effective" by default on December 18, 2009. *Provisional BUD* at 7. The BUD regulations require MassDEP to accept comments. 310 CMR § 19.060(8). We imagine this provision about the BUD reverting to a final order by default is boilerplate, and are confident our comments will be considered. It at least suggests why the BUD process was not designed for this type of facility.

shouldering more than its fair share of pollution and related health impairments.

MassDEP has entered new territory with this untested *ad hoc* adjudicatory interpretation of a narrow regulation that is supposed to create a limited exemption, but not supplant, the state's solid waste management program. This highly unusual administrative process lacks adequate procedural and substantive safeguards, and it circumvents the very statute under which the BUD regulation purports to be based. This BUD process, with its comparatively limited opportunity for public participation and gaps in regulation and enforcement, is simply an ill-fitting and inadequate mechanism for addressing an issue of this magnitude and complexity.

Palmer will be the Commonwealth's first C&D incinerator. The decisionmaking process should adhere to the strictest regulatory scrutiny. *This BUD, however, treats it as an exception.*

II. THIS BUD LACKS AN ADEQUATE BASIS IN LAW AND CONTRAVENES THE STATUTE ON WHICH IT PURPORTS TO BE BASED

A. Site Assessment Is Mandatory under State Law

A BUD is only valid insofar it is for a use other than a "disposal" under state law. The fundamental problem with this proceeding is that it seeks to redefine "solid waste" into something else, which the BUD purports to vest MassDEP with authority to do in only certain circumstances, *so long as the material is put to a use other than a "disposal" under state law.* The BUD process is inapplicable here as a matter of law because MGL c. 111 § 150A is explicit that incineration of any portion of the solid waste stream remains a form of disposal.

The BUD regulation at 310 CMR § 19.060 was first promulgated in 1990 and amended in 2005. It recognized that a select portion of the solid waste stream may be redirected away from a "disposal" activity – which MGL c. 111 § 150A cross-defines as "incineration"⁸ – in order to be put to a productive (beneficial) use in some other application. In other words, a solid waste stream *remains subject to state law "disposal" requirements, unless some select portion of that stream is capable of being put to a "beneficial use" other than a "disposal" activity itself.*

The Legislature has directly spoken on this precise issue by cross-defining "incineration" as "disposal." The intended use of so-called "secondary material" goes hand-in-hand with whether such material qualifies for a BUD in the first place. In this case, for this application, the Legislature has directly spoken on this precise issue – the "incineration" of a stream of solid waste regulated under MGL c. 111 § 150A *remains* a disposal activity.⁹ Section 150A explicitly cross-defines the "disposal" of solid waste as "incineration" without exception.¹⁰

⁸ MGL c. 111 § 150A (cross-defining a facility as a "refuse incinerator rated by the department at more than one ton of refuse per hour," a "resource recovery facility," and "any other works for treating, storing, or disposing of refuse").

⁹ This is why the regulation states that the BUD determination is only valid insofar as "the secondary material is . . . used in accordance with the MassDEP's determination of beneficial use." 310 CMR § 19.060(10). The non-disposal use of the material is the only basis for redirecting solid waste *out of the disposal requirements.*

¹⁰ MGL c. 111 § 150A (cross-defining a facility as a "refuse incinerator rated by the department at more than one ton of refuse per hour," a "resource recovery facility," and "any other works for treating, storing, or disposing of refuse"); *see also* 310 CMR § 19.006 ("Disposal means the final dumping, landfilling or placement of solid waste into or on any land or water or the *incineration* of solid waste." (emphasis added)).

MassDEP regulations also preclude “recycling” of solid waste through incineration.

Even insofar as this BUD may be cast as some *de facto* form of “recycling,” 310 CMR § 16.05(3) is explicit that “any operations which recycle construction and demolition debris or special wastes” remain subject to the site assessment process under MGL c. 111 §§ 150A and 150A1/2.¹¹

Furthermore, the solid waste management regulations (310 CMR § 19.000 *et seq.*), of which BUDs are a part, define “recycle” as *not* meaning “to recover energy from the combustion of a material.”¹² These explicit recycling exclusions directly contradict the application of 310 CMR § 19.060 here.

The BUD as applied here circumvents state law. Any facility proposed to be sited in the Commonwealth¹³ for the incineration of solid wastes is governed by MGL c. 111 §§ 150A and 150A1/2, and implementing regulations including the siting criteria under 310 CMR § 16.00 *et seq.* In this case, the asserted “beneficial use” is the provision of “fuel” for energy generation. This beneficial use, however, necessarily rests on incineration, and that term is synonymously defined by the Legislature and MassDEP’s own regulations as a “disposal.”

There is no question that if this were a standalone incinerator, it would be governed by that statutory and regulatory framework – just as there is no question that the BUD itself must be supported under its *enabling legislation* in MGL c. 111 §§ 150A and 150A1/2. Simply changing the name of a subset of the waste stream as “fuel” for energy recovery via this BUD – precisely because that material is being put to a “beneficial use” as a “fuel” for energy recovery – is circular. It still is functionally and definitionally a disposal. Indeed, Palmer views its incineration facility as an “in-state solution” to the ban on land disposal of C&D wood.¹⁴

Even if MassDEP were correct in interpreting MGL c. 111 §§ 150A and 150A1/2 as not prohibiting this BUD by its plain text, its application here contravenes any arguable zone of agency discretion for BUDs. Agencies lack discretion to select *which* laws to follow. Even putting aside whatever discretion MassDEP may seek to assert as a general matter, that does not apply to an agency’s unilateral extension of its own statutory jurisdiction. The exception here swallows the rule. MassDEP is effectively seeking to extend its own jurisdiction so as to issue any BUD that has the effect of dismantling a statutorily created program and its requirements.¹⁵

¹¹ 310 CMR § 16.05(3). An exempt operation also must not receive more than 100 tpd of “recyclable materials.” *Id.*

¹² 310 CMR § 19.006. *see also* 310 CMR § 19.006 (“Disposal means the final dumping, landfilling or placement of solid waste into or on any land or water or the *incineration* of solid waste.” (emphasis added)).

¹³ MGL c. 111 § 150A (“Facility” means “a sanitary landfill, a refuse transfer station, a *refuse incinerator rated by the department at more than one ton of refuse per hour, a resource recovery facility, a refuse composting plant, a dumping ground for refuse or any other works for treating, storing, or disposing of refuse.*” (emphasis added)).

¹⁴ This power plant is cast as “renewable” on the basis that Palmer will burn substantial quantities of a subset of a C&D waste stream that consists of a mix of clean and contaminated wood, which came from trees. The classification of Palmer as “renewable” violates MassDEP’s regulations, which provide that “[e]nergy generated from . . . biomass . . . are not renewable energy.” 310 CMR § 7.32. The asserted beneficial use of burning this waste stream at a facility slated for an Environmental Justice community in Springfield appears to be a regionalized yet undefined need for energy generation. From our understanding of the administrative record, MassDEP did not consider needs or alternative energy sources with fewer negative impacts (in nature or degree) on the environment and, in turn, public health. This analysis is needed for a determination of “beneficial use.” 310 CMR § 19.060(2).

¹⁵ DEP has also, for these reasons, failed to consider factors required by the Legislature and derogated canons of statutory construction – including the principle that explicit exemptions are deemed to be exclusive and that statutes should be interpreted so as to avoid internal inconsistencies and so that none of their terms are read to be redundant.

For these reasons, we see no statutory authority for the BUD under a generous reading of MGL c. 111 §§ 150A and 150A1/2. The facility remains on its own terms an incinerator that will dispose of some of the C&D waste stream. While some may recognize the general benefits of energy generation *because of* waste disposal, there is simply no basis to make such “tradeoffs” under 310 CMR § 19.060. *MassDEP may be killing two birds, but it is using the same stone.*

B. This BUD Divests the Public of Procedural Rights and Divests Public Health Agencies of Their Statutory Function

Solid waste incinerators must get a site assignment. Facilities subject to MGL c. 111 § 150A must undergo a site assignment by the local boards of health after a public hearing under § 150A.¹⁶ Section 150A is without exception – *all* incineration facilities are governed:

No place in any city or town shall be maintained or operated by any person . . . as a site for a facility, or as an expansion of an existing facility, *unless*, after a public hearing, *such place has been assigned by the board of health* of such city or town in accordance with the provisions of this section¹⁷

This entails an application to the local board of health, with copies to the Department of Public Health,¹⁸ which has the statutory obligation to review and comment.¹⁹ Within sixty days of the application, the Department of Public Health “*shall review*” the application and “*comment . . . as to any potential impact of a site on the public health and safety.*”²⁰ The local board of health must “consider the concerns, if any,” by the Department of Public Health.²¹

The local board of health has a statutory obligation here, which includes the ability to veto MassDEP’s siting decision. The local board of health is obligated *not* to assign the site if it finds that the facility “would constitute a danger to the public health or safety or the environment” under 310 CMR § 16.00 *et seq.*²² The local board of health has the final say in this

¹⁶ MGL c. 111 § 150A.

¹⁷ MGL c. 111 § 150A (emphasis added); *see also* 310 CMR § 16.05(1) (stating that these regulations “govern the process of application, review, public hearing and decision for a site assignment to . . . establish a new solid waste management facility at an unassigned site”); 310 CMR § 16.05 (“No place in any city or town shall be maintained or operated as a site for a facility unless such place has been assigned by the board of health or the Department, whichever is applicable, pursuant to MGL c. 111, § 150A. Any *disposal of solid waste at any location not so assigned shall constitute a violation* of said statute and of 310 CMR § 16.00.” (emphasis added)); 310 CMR § 19.020 (“No person shall construct, operate or maintain a facility to store, process, transfer, treat or dispose of solid waste except in accordance with: (a) a valid site assignment; [and] (b) a solid waste management facility permit . . .”).

¹⁸ MGL c. 111 § 150A (“*Any person* desiring to maintain or operate a site for a new facility . . . *shall* submit an application for a site assignment to the local board of health and simultaneously provide copies to [MassDEP] and the department of public health.” (emphasis added)).

¹⁹ MGL c. 111 § 150A.

²⁰ MGL c. 111 § 150A (emphasis added). MassDEP plays a different role in this process, in that it “shall issue a report stating whether the proposed site meets the criteria” that § 150A1/2 requires. MGL c. 111 § 150A. “No assignment shall be granted by the local board of health unless the [MassDEP] report affirms that the siting criteria of [§ 150A1/2] have been met by the proposed site.” MGL c. 111 § 150A.

²¹ MGL c. 111 § 150A.

²² MGL c. 111 § 150A.

process in that it may decide not to site a facility even if MassDEP finds the site suitable.²³

An enhanced public hearing is required. The failure to observe this process in and of itself has deprived the public of their procedural rights. The public hearing requirement and process under the siting criteria regulations are significant on this issue, because they are exponentially more robust by comparison to the 21-day written comment period provided for this BUD starting from the date it was postmarked. This includes procedures such as prefiled direct testimony, a hearing officer, and the right of parties to present evidence, cross-examine, make objections, and present oral arguments, and a final reasoned decision based on a majority decision.²⁴

Both state and local public health agencies have been divested of their statutory obligation to protect the public from environmental harm. Section 150A is mandatory that additional agencies play a critical and deciding role in this process – *ie*, that the local board of health designate the site, and the Department of Public Health independently consider whether it is acceptable. The statute on which this BUD purports to be based is, here again, without exception. The local board of health’s determination “*shall*” be based on the “site suitability criteria” under MGL c. 111 § 150A1/2²⁵ and 310 CMR § 16.00 *et seq.*²⁶

C. If C&D Incineration Is Allowed, the Siting Criteria or a New Regulatory Structure Are Necessary

The ultimate problem that we are left with is that there is no precise existing regulatory structure in place for this particular activity. It is not simply that the incineration of a subset of the C&D waste stream in Springfield is “bad policy,” but that the BUD itself is not capable of providing the necessary safeguards guaranteed by state law. The BUD is an ill-fitting adjudicatory process that is not designed for the complexity of this situation. Indeed, MassDEP’s Solid Waste Master Plan only contemplates *using C&D wood “for use of C&D fines as daily cover material and C&D residuals as grading and shaping material at landfills.”*²⁷

Even under the siting criteria, which provide for a more exacting process and substantive analysis than this BUD, there are still no standards specific to incineration of a subset of a diverse C&D waste stream – which itself is the subject of varying definitions and regulations in different states²⁸ and inherently vulnerable to unpredictable spikes in contamination.

²³ See (“When [MassDEP] issues a Report with a finding that the site does meet the site suitability criteria, the board of health shall proceed to hold a public hearing pursuant to 310 CMR § 16.20 *for the purpose of deciding whether to grant or refuse to grant a site assignment* for the parcel of property which is the subject of the [MassDEP] Report.” (emphasis added)).

²⁴ 310 CMR § 16.20.

²⁵ MGL c. 111 § 150A (“The determination by the board of health . . . of whether to assign a place as a site for a facility, or for the expansion of an existing facility, *shall be based upon the site suitability criteria* established . . . pursuant to [§ 150A1/2] . . .”).

²⁶ As authority for 310 CMR § 16.00 *et seq.*, § 150A1/2 requires that MassDEP with cooperation from the Department of Public Health “promulgate rules and regulations for the siting of facilities.” MGL c. 111 § 150A1/2.

²⁷ Solid Waster Master Plan, 2006, at 21.

²⁸ See Franklin Associates (Prepared for EPA), *Characterization of Building-Related Construction and Demolition Debris in the United States*, June 1998, at <http://www.epa.gov/waste/hazard/generation/sqg/c&d-rpt.pdf>.

This BUD also does not directly regulate or even identify Palmer’s suppliers for this purpose, despite its efforts to make some sense of how to “sort” this waste stream. Even assuming C&D incineration were not prohibited in the Commonwealth, we propose that the only advisable course of action would be to deny the instant application and undertake new regulation that is specifically tailored to the complicated set of questions and risks posed by this activity.

Whereas 310 CMR § 19.060 lacks any provision for the incineration of material picked out of a waste stream, the statute on which the BUD regulation purports to be founded specifically requires that new incineration facilities adhere to the siting criteria. Section 150A1/2 and its implementing regulations at 310 CMR § 16.00 *et seq.* provide criteria specifically designed to create a process that protects the environment and, in turn, public health from the unique and particular risks tied to *where* an incinerator is located. Section 150A1/2 provides seventeen enumerated factors that the siting criteria regulations, and any related adjudications, must incorporate. Combined with the regulations, some key examples include:

- (1) “the nature and extent of *residential areas in proximity* to the site”;²⁹
- (2) “the potential for *adverse impact on air quality*” – which requires compliance with air permitting requirements under federal and state law *in addition to* analysis of whether anticipated emissions “*would otherwise* constitute a danger to the public health, safety or the environment” based on:
 - (a) “the concentration and dispersion of emissions”;
 - (b) “the *number and proximity of sensitive receptors* “; and
 - (c) “the *attainment status* of the area”;³⁰
- (3) “the potential for the *adverse public health and safety impacts*”;³¹
- (4) “the potential impact of *increased traffic volume on roads to the site,*” including impacts such as *congestion, safety, and vehicle emissions*;³²
- (5) “the potential adverse impacts on *communities within one-half mile* of the proposed site” – *ie,* the “host” Environmental Justice community here,³³ and
- (6) *cumulative impacts*, including “whether the projected impacts of the proposed facility pose a threat to public health, safety or the environment, *taking into consideration the impacts of existing sources of pollution or contamination.*”³⁴

The statutory regime specifically mandates a more rigorous set of procedural and substantive protections lacking in the BUD process. This should come as no surprise, given

²⁹ MGL c. 111 § 150A1/2(6) (emphasis added).

³⁰ MGL c. 111 § 150A1/2(9) (emphasis added); 310 CMR § 16.40(4)(f) (emphasis added).

³¹ MGL c. 111 § 150A1/2(11) (emphasis added).

³² MGL c. 111 § 150A1/2(14) (emphasis added); 310 CMR § 16.40(4)(b) (emphasis added).

³³ MGL c. 111 § 150A1/2(17) (emphasis added). In addition, the siting criteria require analysis of whether the facility “would result in nuisance conditions which would constitute a danger to the public health” (310 CMR § 16.40(4)(g)), but that provision is omitted from the text above because the BUD regulations have a similar mandate.

³⁴ 310 CMR § 16.40(4)(k) (emphasis added).

that this regulatory framework was specifically required and designed for facilities that propose to incinerate a portion of a waste stream, whereas the BUD was designed for putting a portion of that stream to a relatively contained application *other than disposal itself*. From even a cursory review of the highlighted portions of the criteria listed above, they have an obviously more direct application to the sorting, sampling, traffic, and emissions concerns associated with Palmer.

Regulating the variable nature of the C&D waste stream and mix of hazardous and nonhazardous waste would require heightened scrutiny. The presence of hazardous waste at variable levels, combined with remaining questions about the efficacy of sorting, sampling, and enforcement, require more scrutiny under state law than the BUD is capable of providing.³⁵ The C&D waste stream itself is a highly diverse and variable waste stream consisting of mixed hazardous and nonhazardous solid wastes,³⁶ resulting from the construction, remodeling, repair or demolition of buildings, pavements, roads, and other structures.³⁷ As the Department of Public Health identified in a letter to Michaelann Bewsee dated October 2, 2009, this waste stream “consists of a variety of building waste including asphalt roofing shingles, gypsum wallboard, and wood products including lumber, siding, laminates, flooring, and painted wood.”³⁸ The waste stream for older structures includes, for instance, “concrete, wood, metals, insulation, electrical materials, plumbing pipes and fixtures, and wood possibly containing lead paint.”³⁹

The envisioned sorting process is problematic. This stream includes both “clean” and “contaminated” wood-based materials, such as up to 3% of wood preserved with pesticides including chromium, copper, and arsenic (CCA-treated wood),⁴⁰ wood with lead-based paints, and manufactured wood products with adhesives and polymers such as plywood.⁴¹ In apparent recognition of the practical limits to “sorting” by “positively picking” out wood-based materials from the overall stream based on visual inspection of waste on a conveyor belt, 1% of this supply may also include *non-wood materials* such as plastics, asphalt, brick, and concrete (ABC) rubble, and metals.⁴² Sorting the clean from contaminated wood is a problem. A 2008 report commissioned by MassDEP found over 20% of wood-based C&D waste was “adulterated” with

³⁵ See MGL c. 21C § 5 (“No person shall . . . dispose of, treat [or] use . . . hazardous waste in a manner which could endanger human health, safety or welfare, or the environment, or in a manner inconsistent with any provision of this chapter . . .”).

³⁶ See MassDEP, *Managing Construction & Demolition Wastes*, at <http://www.mass.gov/dep/recycle/reduce/managing.htm> (providing information on the C&D constituents including asbestos, asphalt roofing shingles, carpet, pressure treated wood, and wood with lead paint); see also 310 CMR § 19.006 (“Construction and demolition waste includes but is not limited to, concrete, bricks, lumber, masonry, road paving materials, rebar and plaster.”).

³⁷ 310 CMR § 19.006.

³⁸ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 1.

³⁹ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 1-2.

⁴⁰ MassDEP, *Pressure Treated Wood: Questions & Answers*, at <http://www.mass.gov/dep/toxics/ptwoodqa.htm> (Wood treated with these pesticides is sometimes referred to as CCA treated wood, and is commonly used for decks, walkways, fences, gazebos, boat docks and playground equipment.”).

⁴¹ *Conditional Approval* at 52 (“[C]lean wood fuel shall include trees, cord wood, logs, lumber, saw dust, wood pellets, slabs, bark, chips, waste pallets, boxes, etc.”), citing 310 CMR § 7.02(8)(a) (BACT).

⁴² *Provisional BUD* at 2-3.

lead paint or CCA.⁴³ MassDEP has stated that such visual inspection is insufficient for determining the presence of CCA-treated wood:

You can usually recognize pressure treated wood by its greenish tint, especially on the cut end, and staple-sized slits that line the wood. *However, the greenish tint fades with time, and not all pressure treated wood has the slits.* If you are uncertain what your structure was made of, try contacting the manufacturer or builder. If your deck or swing set is more than one or two years old, unless it was made of cedar, it was probably made with arsenic treated wood.⁴⁴

Even assuming incineration of such material were appropriate and not a contravention of a C&D incineration moratorium, the sheer size, scope, and nature this waste stream should dictate heightened scrutiny on the entities that “process” C&D waste by “sorting” out this subset of C&D waste to be used as “fuel.” The BUD describes the basic sorting process as follows:

[L]arger pieces of non-recyclable materials are immediately pulled out by grapples or by hand. (This preliminary sorting on the tipping floor is known as “kick sorting.”) Then materials pass through mechanical shredders and screens. *The process culminates at a series of “picking stations” where laborers manually pick recyclable materials off of a conveyor and drop those materials into various bins dedicated to . . . specific materials. This approach is known as a “positive pick,” because each piece that is identified by a worker as being recyclable is manually removed from the conveyor.*⁴⁵

There is a significant regulatory gap via a lack of direct regulation of C&D “secondary material” suppliers for this purpose. Palmer will be receiving this material from C&D waste “suppliers,” which MassDEP does not directly regulate under this BUD for this purpose, apart from generally asserting that “[s]uppliers of C&D-derived wood fuel shall comply with all relevant terms and conditions of this BUD permit” between MassDEP and Palmer.⁴⁶ As far as we understand, the BUD does not require MassDEP to regulate any these suppliers under *any* license or permit specifically between MassDEP and these suppliers for this purpose – *ie*, for this designated “beneficial use” of incineration at Palmer. This is a significant gap in any measure of regulatory control over the “specifications” for this material.

Insofar as some of these suppliers may be located out of state, it is unclear how they could be subject to MassDEP’s jurisdiction – raising further questions about the consistency of the supply and MassDEP’s ability to ensure compliance with the specifications set out in the BUD. Furthermore, the definition of what constitutes “C&D” is subject to differing

⁴³ See Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 1-2 (citing DSM Environmental Services, Inc., 2007 Massachusetts Construction and Demolition Debris Study Industry Study, Final Report, May 16, 2008, available at <http://www.mass.gov/dep/recycle/reduce/07cdstdy.pdf>).

⁴⁴ MassDEP, *Pressure Treated Wood: Questions & Answers*, at <http://www.mass.gov/dep/toxics/ptwoodqa.htm>.

⁴⁵ *Provisional BUD* at 4 (emphasis added).

⁴⁶ *Provisional BUD* at 10.

interpretations by different states,⁴⁷ raising even more questions of how any out-of-state suppliers would be able to comply with the specifications for this material set forth in the BUD.

The BUD does not explain these gaps in regulation, and it is unclear if or how such C&D waste suppliers would be directly regulated by MassDEP. The only supplier specified so far is New England Recycling (NER),⁴⁸ which the BUD states is only “permitted to accept” 550 tpd of an unsorted C&D waste stream,⁴⁹ and therefore can only provide a small fraction of the subset of the C&D waste stream that Palmer would need. NER, for these reasons, is not directly regulated by MassDEP for this purpose. The BUD does not explain how exactly NER is regulated or how any such regulation would contribute to the mission of the BUD. This BUD with Palmer simply identifies a “sorting process” that it somehow expects NER and future suppliers to follow.

NER’s sorting process is also questionable substantively because it relies on what the BUD describes as “laborers” without defining, among other things, their oversight and training by management, or the extent to which MassDEP is actually able to regulate them. The only description of required training is ambiguous and vested solely with Palmer itself: “[Palmer] shall instruct or give on-the-job training to all personnel involved in any activity authorized by the permit.”⁵⁰ This is inadequate because the sorting process is a critical link in the chain.

The proposed sampling methodology raises more questions than answers. The sampling itself is narrow, and fails to account for the variability of the supply, which is subject to a wide range of contaminants in any given delivery based on the age and nature of the overall C&D waste stream that the materials were sorted from (*eg*, the age and nature of the particular buildings demolished). The sampling requirements suggest that designated Palmer employees will be able to conduct some basic form of a sample gathering process,⁵¹ without a specific training methodology put in place by MassDEP,⁵² and without parameters on what and when they must sample the material designed to protect against self-serving selections.⁵³ This fails to ensure a sufficiently numerous and representative sample of this subset of the waste stream.

The reporting delay is inconsistent with the BUD regulation. Compounding these sampling problems, the frequency of the reporting is inadequate. The BUD states that “within 30 days after the end of each calendar quarter, [Palmer] shall submit a report summarizing the results of all sampling and analysis that took place during the quarter.”⁵⁴ This hinders real-time analysis of stack emissions. This reporting delay, of up to three months – for samples with potential to be an unrepresentative subset of a waste stream inherently subject to spikes in contaminants – cannot be reconciled with the BUD’s basic requirements.

⁴⁷ See Franklin Associates (Prepared for EPA), *Characterization of Building-Related Construction and Demolition Debris in the United States*, June 1998, at <http://www.epa.gov/waste/hazard/generation/sqg/c&d-rpt.pdf>.

⁴⁸ *Provisional BUD* at 13.

⁴⁹ *Provisional BUD* at 4.

⁵⁰ *Provisional BUD* at 7. The BUD also fails to account for what the penalty would be should NER or another supplier fail, or should Palmer burn material or emit air pollutants that exceed the thresholds set out in the BUD.

⁵¹ *Provisional BUD* at 8.

⁵² *Provisional BUD* at 7, 11.

⁵³ *Provisional BUD* at 14-16.

⁵⁴ *Provisional BUD* at 11.

Given the potential for hazardous waste in Palmer’s incineration supply, this BUD also risks violation of the federal Resource Conservation and Recovery Act (RCRA). RCRA’s recycling provisions are explicit that materials “burned for energy recovery,” “used to produce a fuel,” or otherwise “used in a manner constituting disposal,” are still “solid waste.”⁵⁵ This interpretation is binding on the Commonwealth; indeed, state law corresponds with this recognition under the statutory and regulatory cross-definitions of “disposal” and “incineration.” The BUD cannot adequately assure protection against this potential violation of federal law.

III. BUD CRITERIA AND CATEGORIZATION

By Palmer’s own admission and the BUD’s own terms, there is no way that it can comply with the BUD “reuse criteria” for critical contaminants of concern (CCC). The BUD regulation is explicit that reuse “*not result in increases* in the environmental concentrations of any critical contaminants of concern (CCCs), including persistent, bioaccumulative toxins (PBT) and other priority chemical pollutants as identified by [MassDEP].”⁵⁶ This adjudication expressly relies on MassDEP’s BUD guidance document,⁵⁷ which is the only guidance document we are aware of for BUDs. MassDEP’s BUD guidance, however, identifies contaminants including lead, mercury, and others as critical contaminants of concern.⁵⁸ The regulation’s prohibition of any “increase” of any of these contaminants as a result of the “beneficial use” is *mandatory*. The BUD does not reconcile or even address this prohibition.

Even working under this framework, the classification of this BUD as “category 2” is improper. The BUD regulation sets out different classifications of BUDs on a scale of category 1 through category 4,⁵⁹ which generally correlates with the extent of risk analysis to be employed. Palmer has been issued as a “category 2,” which requires that the facility be a “regulated system” independent of the BUD (or else all BUDs would be automatically be a “regulated system”).⁶⁰

The only apparent basis for seeking to classify Palmer as a regulated system is its *pending* application for air permitting. This represents an improper bootstrapping of two sets of interrelated permits (the BUD and the air permitting) issued through parallel adjudications. Category 2 only applies to a “[b]eneficial use at facilities” that are “permitted” or “approved” by MassDEP.⁶¹ This indicates that the two sets of permits cannot be bootstrapped together in time. Even if MassDEP were correct to pair these two adjudications, the sequencing is wrong because the Provisional BUD was issued before the air permitting Conditional Approval, and the air permitting is subject to a live hearing and public comment in early December.⁶²

⁵⁵ 40 CFR § 261.2(e)(2).

⁵⁶ 310 CMR § 19.060(13)(d) (emphasis added).

⁵⁷ *Provisional BUD* at 6-7.

⁵⁸ MassDEP, *Draft Interim Guidance Document for Beneficial Use Determinations Regulations*, Mar. 18, 2008.

⁵⁹ 310 CMR § 19.060(14)-(17).

⁶⁰ 310 CMR § 19.060(15).

⁶¹ 310 CMR § 19.060(15)(a).

⁶² Furthermore, attempting to finalize the air permits *before* the date that BUD states that it will become final (December 18, 2009) would violate the public participation process required for the air permitting.

IV. IMPACTS ON THE ENVIRONMENT AND PUBLIC HEALTH

The incineration of a quarter million tons per year (tpy) of C&D will impact the environment and public health and requires analysis in this adjudication. The average daily incineration of 700 tons (and up to 900 tons on any given day) of material from the C&D waste stream, in addition to the emissions of natural gas used for equipment startup and flame stabilization,⁶³ will emit hazardous and criteria air pollutants subject to federal and state air pollution laws. The total amount of pollutants will be significant because, as stated in MassDEP's air permitting Conditional Approval dated October 30, 2009 and Palmer's BUD Application revised June 30, 2009, the plant would be authorized to incinerate 255,500 tpy.⁶⁴

The emissions from the three dozen or more truck deliveries on average each day is also of concern. The material would be delivered to Palmer by means of 20-ton truckloads five to six days per week "during daytime hours" that are not defined.⁶⁵ Estimates would put the weekly delivery average at 3,500 to 4,200 tons (700 tpd x 5-6 days). This equates to 35 trucks each way, on average daily (700 tpd / 20-ton truckloads). This, in turn, equates to 175-210 trucks each way, on average weekly (35 trucks x 5-6 days), potentially releasing diesel emissions en route to and from this low income community of color. This new influx of diesel exhaust is another area that requires further analysis by MassDEP, particularly given the threats to the health of children who play outside in this Environmental Justice community.

These emissions threaten to cumulatively degrade the air quality – and, in turn, public health – in the Pioneer Valley, Springfield, and the low income community of color in which Palmer is proposed, and potentially to create toxic "hot spots." The hazardous air pollutants at issue include arsenic, chromium and chromium (IV), cobalt, copper, cadmium, dioxins/furans, manganese, mercury, nickel, and acid gas emissions from combusting chlorine and fluorine, among others.⁶⁶ Criteria air pollutants and their precursors from Palmer include lead, particulate matter (PM₁₀ and PM_{2.5}), carbon monoxide, sulfur dioxide, nitrogen oxides, ammonia, and volatile organic compounds.⁶⁷ For these pollutants, Springfield is located within an air quality control region (AQCR) currently designated as in attainment or unclassifiable in meeting the air quality thresholds set out in Clean Air Act's National Ambient Air Quality Standards (NAAQS) for PM₁₀, PM_{2.5}, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead.⁶⁸ The AQCR is designated as in "moderate" nonattainment for ozone under the NAAQS.⁶⁹

Springfield is already shouldering more than its fair share of environmental health risks. This cumulative baseline of environmental health is documented by Department of Public Health's statewide pediatric asthma surveillance since the 2003-04 school year, statewide

⁶³ Conditional Approval at 6.

⁶⁴ Conditional Approval at 6; Revised BUD Application at 2-2, 5-9. This figure was apparently derived by affording Palmer the maximum operating capacity of 365 days per year (255,500 tpy / 700 tpd).

⁶⁵ Provisional BUD at 5.

⁶⁶ Conditional Approval at 13-14, 26-28, 38.

⁶⁷ Conditional Approval at 13-14.

⁶⁸ Conditional Approval at 16.

⁶⁹ Conditional Approval at 16.

hospitalization rates for respiratory illnesses available from the Massachusetts Community Health Information Profile (MassCHIP), and childhood blood-lead levels available from the Centers for Disease Control and Prevention (CDC)⁷⁰ The hazardous air pollutants that Palmer will emit are, by definition, deemed to be carcinogenic, teratogenic (a cause of birth defects), neurotoxic, a cause of reproductive dysfunction, or acutely or chronically toxic.⁷¹

The facts are disconcerting, and they reveal that Springfield in particular is facing a childhood public health crisis that is interlinked with poor air quality. One principal culprit is ozone – Springfield already exceeds the federal health-based thresholds (NAAQS) for this pollutant, leaving children, people with asthma, and older people at particular risk.⁷² The AQCR of which Springfield is a part is designated as in nonattainment for ozone.⁷³ This means, for instance, that children in Springfield are at a greater risk for pulmonary conditions such as asthma, and that additional emissions of pollutants such as nitrogen oxides and volatile organic compounds (and any proposed offsets to those emissions, especially if banked outside this AQCR) should be viewed critically,⁷⁴ or else the area will degrade into further nonattainment.

Asthma rates are significantly higher in Springfield than the rest of the state. Indeed, asthma rates for school-age children and hospitalizations for asthma among the general population are *significantly higher in Springfield* than in the rest of the Commonwealth. There are dozens of schools within a 5-mile radius of the facility, and the prevalence of asthma at some of them is statistically significant.⁷⁵ As the Department of Public Health has indicated:

- “The *pediatric asthma prevalence for the schools in Springfield located closest to the proposed site* (Samuel Bowles Elementary School, Mary O. Pottenger Elementary School, and the Van Sickle Middle School) *is statistically significantly higher than statewide prevalence*” for school years starting 2004 and ending 2007.⁷⁶
- During the years 2004-06, “the *rates of hospitalization for asthma (ie, hospital emergency room visits) for Springfield residents were statistically significantly higher than the statewide rates for each of these years. Specifically, the age-adjusted rates were over twice the statewide rates.*”⁷⁷

Blood lead levels in Springfield children are roughly twice the statewide average. The CDC considers a blood-lead level (BLL) of 10 micrograms for deciliter (mcg/dL) or greater to be a “level of concern.”⁷⁸ The prevalence of children tested in Springfield with a BLL above this threshold was significant: 15.5 per 1000 (2006), 15.8 per 1000 (2007), and 9.5 per 1000 (2008)

⁷⁰ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 2-3.

⁷¹ 42 U.S.C. § 7412(b)(2).

⁷² See, e.g., EPA *Health Effects of Ozone in Patients with Asthma*, at <http://www.epa.gov/o3healthtraining/effects.html#how>; EPA, *Health and Environment*, at <http://www.epa.gov/air/ozonepollution/health.html>.

⁷³ *Conditional Approval* at 16.

⁷⁴ See EPA, *Ground-level Ozone (Smog) Information*, at <http://www.epa.gov/ne/airquality/index.html>.

⁷⁵ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at table 1 and graph (schools within a 5-mile radius).

⁷⁶ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 2.

⁷⁷ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 3.

⁷⁸ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 3.

– about twice the statewide rates in each year.⁷⁹

These emissions are compounded on an already cumulatively degraded baseline of air quality. The Department of Public Health has questioned whether the “increase in emissions,” including from mobile sources and respiratory irritants emitted from the stack, would “impact or exacerbate existing health conditions.”⁸⁰ These risks are real and most acute for the at risk populations. Under MassDEP’s approach for the project, Palmer would not operate and incinerate such material *but for* this BUD. Assuming for the sake of argument that it could be appropriate to incinerate a subset of the C&D waste stream and that the BUD or some other existing regulatory structure were appropriate for Palmer, additional analysis of the cumulative baseline of air quality and environmental health is necessary.

There is no affirmative showing that this proposed use will “not cause an adverse impact or significant risk to public health, safety and the environment, including, but not limited to, nuisance conditions.”⁸¹ MassDEP must be “satisfied” that the applicant has met its burden to demonstrate “that such secondary materials and uses are beneficial and *pose an insignificant potential hazard to public health, safety or the environment.*”⁸² *The BUD, by contrast, never attempts to set out a zone of impact for analysis of at risk populations, let alone taking into account the cumulative baseline of environmental quality that exists already.* It lacks reasoned analysis of the existing state of public health and air quality that Palmer would impact and potentially worsen. The BUD regulation, however, expressly requires the applicant to demonstrate that the “secondary materials and uses are *beneficial and pose an insignificant potential hazard to public health, safety or the environment.*”⁸³

V. MEPA

This BUD improperly segments the project. If built, Palmer will be the Commonwealth’s first C&D incinerator. This BUD, however, represents an improper segmentation of an activity that, when looked at as a whole, requires an environmental impact report (EIR) under the Massachusetts Environmental Policy Act (MEPA). MEPA specifically requires an EIR for the incineration of 150 or more tpd of solid waste.⁸⁴

For determining whether this threshold is met, the “entirety” of the project must be evaluated, which means that it cannot be cast into “separate phases or segments.”⁸⁵ This BUD is

⁷⁹ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 3.

⁸⁰ Letter from S. Condon to M. Bewsee, Oct. 2, 2009, at 3.

⁸¹ 310 CMR § 19.060(12); *see also* 310 CMR § 19.060(13) (providing similar standards for reuse criteria).

⁸² 310 CMR § 19.060(2)(b) (emphasis added). The BUD also fails to account for what the penalty would be for Palmer should NER or another supplier fail, or should Palmer burn material or emit air pollutants that exceed the thresholds set out in the BUD.

⁸³ 310 CMR § 19.060(2)(a) (emphasis added); *see also* 310 CMR § 19.060(2)(b) (“The Department may grant a beneficial use determination, and may allow a beneficial use determination to remain in effect, only to the extent, and only while, the Department is satisfied that such secondary materials and uses are beneficial and pose an insignificant potential hazard to public health, safety or the environment.”).

⁸⁴ 301 CMR § 11.03(9)(a).

⁸⁵ 301 CMR § 11.01.

the first permit in this project, and it is issued for the ostensible purpose of reclassifying Palmer's incineration of solid waste as a "beneficial use" exception to the solid waste disposal requirements. The BUD effectively allows the applicant to bypass the EIR requirement by transforming Palmer into something inconsistent with its definition as a disposal facility under MGL c. 111 § 150A, a chapter expressly governing "solid waste disposal facilities."

The Commonwealth's Environmental Justice Policy demonstrates the need for enhanced MEPA review. Springfield is designated as an Environmental Justice community with rights to enhanced protections,⁸⁶ which can only be effectuated through an EIR. The Commonwealth's Environmental Justice Policy defines environmental justice as seeking "equal protection and meaningful involvement of all people," including the "equitable distribution of environmental benefits."⁸⁷ Environmental Justice communities deserve "enhanced public participation" and "enhanced analysis of impacts and mitigation" under MEPA.⁸⁸

This community is already exposed to levels of ozone that exceed the federal health standards for air quality, and its children have asthma and lead levels that are *significantly higher* than the state average. Most of the residents of this community are low income or people of color. Discretionary enforcement of the Environmental Justice Policy defies its very purpose of protecting these communities from economic and political asymmetries, and goes against the policy's own statement that it is binding "all agencies of [EOEEA]."⁸⁹ Even if this project did not qualify for an EIR (which it does), the risks and complexity of C&D incineration in Commonwealth – let alone in a low income community of color in Springfield – transcend this BUD process. The proposal to incinerate a subset of the C&D waste stream should be evaluated, including alternatives, mitigation, and the extent to which such a C&D "fuel" source can be regulated, under a programmatic EIR or "fail safe" review for this project.⁹⁰

VI. CONCLUSION

Palmer's proposed "beneficial use" will impose significant threats to the environment and public health. This adjudication has raised issues that require high-level solutions, in addition to addressing the specific areas identified above. Even assuming C&D incineration were not prohibited in the Commonwealth, we believe that the only possible solutions would be:

- (a) ***Recommended action:*** Determine that no existing regulatory structure is adequate to protect the environment and public health from the multifarious and lingering questions about the adequacy of sorting through this stream, sampling results and the innate variability and susceptibility of spikes of hazardous wastes in the supply, the current limits in place for regulating suppliers and to overall enforcement mechanisms, the inadequacies of risk assessment and management

⁸⁶ See EOEEA, *Cities and Towns that Include Environmental Justice Communities*, at www.eot.state.ma.us/smartgrowth/07toolkit/pdf/ej_cities-towns.pdf.

⁸⁷ *Environmental Justice Policy* at 2.

⁸⁸ *Environmental Justice Policy* at 7-9.

⁸⁹ *Environmental Justice Policy* at 2.

⁹⁰ 301 CMR § 11.04.

tailored to the risks posed by this waste stream and its incineration in this community, and compliance with preexisting state and federal law – and require that MassDEP deny the application and consider the promulgation of new regulations designed to address this specific activity and these associated risks; or

- (b) ***Alternative action:*** Determine that, in the absence of additional regulation, the only comparable regulatory framework that is most in line with MGL c. 111 § 150A and the logical structure for solid waste disposal facilities such as here would be strict compliance with the siting process as set forth in considerable detail in §§ 150A, 150A1/2, and 310 CMR § 16.00 *et seq.*, in addition to the solid waste management requirements and procedures set out in 310 CMR § 19.000 *et seq.* – which, in turn, would first require that EOEEA perform an EIR under MEPA based on Palmer’s proposed incineration of 150 tpd of solid waste.

Very truly yours,

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Encl.: Letter from S. Condon to M. Bewsee, Oct. 2, 2009