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**RESPONSE TO COMMENTS SUMMARY**  
**REVISIONS TO THE SOLID WASTE MANAGEMENT REGULATIONS**  
**310 CMR 19.000**  
**November 2010**

**INTRODUCTION**

The Massachusetts Department of Environmental Protection (MassDEP) held two public hearings on proposed revisions to the Solid Waste Management Regulations, 310 CMR 19.000 in June, 2010. Public notice of the hearings was printed in two newspapers of general circulation as well as in the Environmental Monitor, The Massachusetts Register, and on the MassDEP website. The comment period ended on July 6, 2010.

The proposed revisions were made available on the MassDEP website and notification of the hearings was provided to a large mailing list of people including the Solid Waste Advisory Committee, facility operators, the Massachusetts Municipal Association and several environmental groups. Fourteen (14) individuals representing various organizations attended the public hearings and oral testimony was provided by eight (8) individuals. Seven (7) sets of written comments were received. Some individuals who provided oral testimony also submitted written comments. A list of those submitting oral testimony and written comments is included on Page 3.

**BACKGROUND FOR PUBLIC HEARING NOTICE**

The Massachusetts Department of Environmental Protection (MassDEP) proposes to amend 310 CMR 19.000, the Commonwealth of Massachusetts' Solid Waste Management Regulations. Specifically, MassDEP proposes to amend 310 CMR 19.017, Waste Bans, to add clean gypsum wallboard to the list of restricted materials effective September 1, 2010<sup>1</sup>, and 310 CMR 19.006 to add a definition for clean gypsum wallboard.

The regulations at 310 CMR 19.017 require solid waste handling and disposal facilities to submit waste ban compliance plans. Solid waste handling and disposal facilities include transfer stations, landfills, municipal waste combustors and construction and demolition debris processing facilities. Waste ban compliance plans must demonstrate how the facility operator

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<sup>1</sup> This implementation date has changed from the proposed date of September 1, 2010 to July 1, 2011 based on comments received during the public hearings.

will not dispose, transfer for disposal or contract for disposal solid waste commingled with unacceptable quantities of banned materials. Once a plan is approved by MassDEP, it must be implemented by the facility. MassDEP will use the plan to evaluate compliance and conduct enforcement (if needed).

Gypsum wallboard, also known as “drywall”, is a panel used typically in interior construction to form a wall or ceiling. The panel has a gypsum core and is faced with a heavy paper or other material on both sides. During new construction, gypsum wallboard installers generate scrap material as they cut the gypsum wallboard to meet various sizes. Approximately 15% -20% of new gypsum wallboard is disposed of as scrap. It is estimated that approximately 40,000 tons to 50,000 tons of new gypsum wallboard scrap material is generated annually in Massachusetts<sup>2</sup>.

Since 2001, MassDEP has successfully worked with the construction and demolition industry to develop a recycling and reuse infrastructure that can divert this material from disposal, meet its Solid Waste Master Plan goals to shift the focus from waste management to materials management, and meet the Commonwealth’s priorities to expand recycling and waste reduction. In 2006, Massachusetts became the first state to ban from disposal certain components of the C&D waste stream, specifically asphalt pavement, brick, concrete, metal and wood. MassDEP continues to work with the C&D industry to divert other C&D materials such as gypsum wallboard, asphalt shingles and ceiling tiles to recycling and reuse markets.

In 2003, MassDEP began to work with the wallboard manufacturing industry and the C&D industry to focus recycling and reuse efforts on gypsum wallboard scrap material to reduce the disposal of gypsum wallboard scrap material in landfills to minimize hydrogen sulfide gas generation and increase recycling of this material.

There is now a sustainable recycling infrastructure that has a current capacity to recycle approximately 80,000 tons of gypsum wallboard waste material into new gypsum wallboard, with the potential to increase this capacity. Contractors and haulers will have the option to either continue to send mixed C&D to solid waste facilities (i.e. construction and demolition debris processors or transfer stations) that will separate the clean gypsum wallboard material or separate the clean gypsum wallboard scrap material and send it directly to a gypsum recycling facility<sup>3</sup>. One gypsum wallboard recycler, Gypsum Recycling America, has established a collection network with numerous C&D processors and transfer stations allowing for contractors to continue to bring clean gypsum wallboard scrap to locations where they currently bring their waste materials.

MassDEP is not proposing to ban the disposal of renovation or demolition gypsum wallboard waste material at this time. We will continue to work with the C&D industry, through the C&D Subcommittee of MassDEP’s Solid Waste Advisory Committee, to assist in developing a recycling and reuse infrastructure for this material.

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<sup>2</sup> Gypsum Association reported 304,119 tons of gypsum wallboard was sold in Massachusetts between April 2008 and April 2009. The National Association of Home Builders determined new wallboard installation results in 15% - 20% scrap.

<sup>3</sup> Currently, two recycling facilities take gypsum wallboard waste directly from contractors and haulers. They are Gypsum Recycling America located in Cambridge, MA and GP-Gypsum located in Newington, NH.

MassDEP is proposing an implementation date for the disposal ban of July 1, 2011. This implementation date has changed from the proposed September 1, 2010 implementation date stated in the public hearing documents based on comments received during the public hearings.

MassDEP has identified two specific issues and proposed options<sup>4</sup>:

1. The greatest tonnage of C&D waste materials is generated on commercial and large scale projects. Therefore, the regulations and policies will be focused on that segment of the C&D waste stream and not on homeowners performing minor projects on their homes.

Proposal: Solid waste facilities (i.e. landfills, transfer stations, municipal waste combustors, and construction and demolition debris processing facilities) do not need to conduct recordkeeping or comprehensive load inspections for vehicles with less than a five cubic yard capacity (the most likely route for homeowner C&D waste).

2. It is not feasible to require separation of all clean gypsum wallboard and other banned construction and demolition material (i.e. asphalt pavement, brick, concrete, metal and wood).

Proposal: Loads with a cumulative total of 20% or less asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard will not be considered failed loads. In addition, pieces of clean gypsum wallboard with dimensions of two square feet or less are exempt from the disposal ban.

Note: After considering public comment, MassDEP will amend its “Guidance for Solid Waste Handling and Disposal Facilities on Compliance with MassDEP’s Waste Bans” to state loads with a cumulative total of 20% or less of asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard will not be considered failed loads. However, solid waste facilities that accept these loads must, to the greatest extent possible, separate and divert these materials from disposal (see comment number 3b).

## **RESPONSES TO COMMENTS**

### **List of Organizations that submitted Oral and/or Written Comment on the Proposed Regulations**

Conigliaro Industries, Inc.  
Construction Materials Recycling Association  
Covanta Energy Corporation, Inc.  
Gypsum Recycling America  
Marshfield Department of Public Works  
National Solid Wastes Management Association – Northeast Region  
North Central Regional Solid Waste Cooperative  
Republic Services

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<sup>4</sup> MassDEP has addressed both issues within our [Guidance for Solid Waste Handling and Disposal Facilities on Compliance with MassDEP’s Waste Bans](#) for our existing C&D materials banned from disposal. We are proposing to revise the same guidance document to include clean gypsum wallboard.

## United Waste Management

1. **Comment:** I would like to comment in favor of the Proposed Clean Gypsum Wallboard Disposal Ban Amendment as written.

In addition, I would like to know if the DEP plans to enact a similar restriction on carpet waste. I believe that the appropriate carpet recycling infrastructure and end markets are now in place to warrant the addition of carpet to the list of Massachusetts waste ban materials.

**Response:** Support for the clean gypsum wallboard disposal ban is noted.

MassDEP, in conjunction with the MassDEP's Construction and Demolition Materials Subcommittee, is continuing to examine how to increase the diversion of various C&D materials including carpet, asphalt shingles and ceiling tiles. MassDEP believes the end markets for used carpet are growing and that an infrastructure for collection of unwanted carpet exists through carpet installers. MassDEP is also participating in negotiations with Carpet America Recovery Effort (<http://www.carpetrecovery.org/>), a national voluntary stewardship effort spearheaded by carpet manufacturers, on establishing a system to help finance the collection of unwanted carpet. MassDEP will monitor the development of the recycling market for used carpet.

2. **Comment:** The Construction Materials Recycling Association is a national 501c3 organization that promotes the recycling of C&D materials. We have watched the Commonwealth of Massachusetts continue to add recyclable materials to its landfill ban list, and it now wants to add drywall to that group. Drywall is one of the most difficult materials to recycle in the C&D stream, and we applaud the state's efforts. The C&D recycling industry would have been better served if the state would have incentivized the marketplace to promote end uses for the material. However, there are a few outlets for the recycled clean drywall in New England, so the CMRA supports MassDEP's proposed ban. We suggest that because drywall gypsum end uses can be a volatile market that the agency monitor the ban.

We question the need to define that the material not go to an incineration facility. Of course gypsum is an inert and won't burn, but is there a concern that the paper byproduct that will be created from the recycling process might be used as a biomass product? There are few other market outlets for that material, and the option to use the paper backing as biofuel should be allowed.

The ban only extends to clean drywall, which is the only real market available. We note that the state has performed a pilot project to determine if post-consumer (demolition) drywall can be recycled, a test that went well. We recommend the state work to further that potential diversion.

**Response:** MassDEP notes CMRA's support of the disposal ban.

MassDEP led initiatives included:

- MassDEP successfully worked with Massachusetts Division of Capital Asset Management (DCAM) to amend its Construction Waste Specification to require all clean

gypsum wallboard waste generated on new construction and renovation projects greater than 20,000 square feet be diverted from disposal to recycling or reuse markets.

- MassDEP has worked with private contractors to develop “fact sheets” documenting the cost savings associated with recycling clean gypsum wallboard waste. These fact sheets are listed on MassDEP’s webpage.
- MassDEP is participating in regional discussions with other regulatory agencies in the northeastern United States to promote gypsum wallboard recycling and reuse opportunities through common policy development.

MassDEP has heard concerns from municipal waste combustors regarding combusting gypsum wallboard waste. Specifically, the potential to increase sulfur dioxide emissions. However, the paper byproduct may be acceptable to municipal waste combustors and would not be subject to the waste disposal bans.

MassDEP did approve a demonstration project evaluating the diversion of gypsum wallboard generated from a demolition project (non-clean gypsum wallboard waste) from disposal to a reuse market. The demonstration project was successful and the project proponent is continuing to evaluate and expand that market. MassDEP is monitoring this market development through our Gypsum Wallboard Workgroup.

3. **Comment:** Covanta Energy is pleased to present the following comments on the proposed regulatory changes for addition of Clean Gypsum Wallboard Disposal Ban Amendments. Covanta Energy is in favor of these proposed regulatory changes. We offer the following comments:
  - a. **Waste Ban Compliance Plan Revisions.** The background document does not discuss any specifics with respect to Waste Ban Compliance Plans. Can the Department provide guidance on the following:
    - i. **Revised Waste Ban Compliance Plans.** It is unclear if formal, revised Waste Ban Compliance Plan (WBCP) submittals will be required. If so, can any relief be granted on permit fees? To simplify WBCP modification, Covanta suggests that the Department explore attaching a new form to the existing WBCP that covers wallboard. Simplifying the WBCP revision would be a benefit to all.
    - ii. **Relief for Small Handling Facilities.** Covanta request relief from submitting revised WBCPs for small handling facilities. For example, it does not appear necessary for facilities that only serve 5 cubic yard vehicles or smaller (i.e. residential trash drop-off/recycling centers) to revise their WBCPs. The proposed rule does not require recordkeeping and comprehensive load inspections of vehicles with less than a 5 cubic yard capacity.
    - iii. **Revised WBCP Deadline.** 310 CMR 19.017(5)(d) specifies that the deadline to submit revised Waste Ban Compliance Plans is ninety (90) days before the effective date of the ban. Since the ban is expected to be effective on 09/01/10, revised WBCP’s would need to be submitted by 06/01/10 which is already past. Please clarify the required date of submittal for revised WBCPs. Adding a separate add-on form as suggested would streamline the process.

**Responses:** MassDEP notes Covanta Energy's support of the proposed changes.

- i. **Revised Waste Ban Compliance Plans.** Solid waste facilities must submit a new or modified waste ban plan to MassDEP to demonstrate how their facility will comply with the disposal ban on clean gypsum wallboard.

However, recent revisions to the state solid waste statute at MGL c. 111, § 150A have shifted the permitting of transfer stations that accept less than or equal to 50 tons per day (tpd) of refuse from MassDEP to the Boards of Health (BoH) in Massachusetts communities. Prior to the statutory revisions, the submittal and approval of Waste Ban Compliance Plans happened as part of the MassDEP permitting process. Because MassDEP is no longer the permitting authority for  $\leq 50$  tpd transfer stations, such facilities do not have to submit waste ban compliance plans to MassDEP. However, a BoH may choose to require a  $\leq 50$  tpd transfer station to submit a waste ban compliance plan to the BoH as part of its application for a BoH-issued permit.

These facilities are still subject to the requirements of 310 CMR 19.017: Waste Bans, which prohibit any person from disposing, transferring for disposal, or contracting for disposal of specific materials upon which the Department has placed waste disposal restrictions. MassDEP may take enforcement action against these facilities for waste ban violations.

The following facilities must submit the referenced permit modification form with their waste ban compliance plan:

- All solid waste transfer and handling facilities (this includes construction and demolition waste processing facilities) permitted at greater than 50 tons per day **without** an existing waste ban compliance plan. (Form *BWP SW 07 – Modification of a Large Handling Facility*)
- All solid waste transfer and handling facilities permitted at greater than 50 tons per day **with** an existing waste ban compliance plan. (Form *BWP SW 21 – Modification of a Small Handling Facility*)
- Solid waste landfills (Form *BWP SW 22 – Landfills – Minor Modification*)
- Solid waste incinerators (Form *BWP SW 21 – Modification of a Small Handling Facility*)

MassDEP will review plans from these facilities in accordance with 310 CMR 19.037 – Review Procedure for Permit Modifications, Permit Renewals and Other Approvals.

- ii. **Relief for Small Handling Facilities.** See response above.
- iii. **Revised WBCP Deadline.** The effective date of the disposal ban on Clean Gypsum Wallboard is being moved to July 1, 2011. Therefore, solid waste

facilities must submit their Waste Ban Compliance Plans on or before April 1, 2011.

- b. **Exempt Small Wallboard Pieces from WBCP Response Actions, but not Waste Ban “Failed Load” Status.** The Background Document (Page 2, Item 2) notes that “pieces of clean gypsum wallboard with dimensions of two square feet or less are exempt from the disposal ban”. Covanta does not agree with this. The proposed approach may encourage generators to “break up” wallboard into small pieces or dust to escape regulatory provisions. The new regulation should do the opposite and encourage generators to carefully remove and recycle wallboard without crushing or damaging pieces. We suggest that the two square feet exemption only apply to Waste Ban Compliance Plan “response actions” for addressing a “failed load”. For example, no wallboard pieces smaller than two square feet would need to be separated and recycled from the load if found. However, their presence should count towards the 20% “Failed Load” determination.

**Response:** Intentionally breaking clean gypsum wallboard to smaller pieces to render it non-recyclable would be considered a violation of waste ban requirements.

The Background Document did state pieces of clean gypsum wallboard with dimensions of two square feet or less are exempt from the disposal ban. Upon review of Covanta Energy’s comment and to be consistent with requirements for other construction and demolition waste ban materials, MassDEP will amend its “Guidance for Solid Waste Handling and Disposal Facilities on Compliance with MassDEP’s Waste Bans” to state loads with a cumulative total of 20% or less of asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard will not be considered failed loads. However, solid waste facilities that accept these loads must, to the greatest extent possible, separate and divert these materials from disposal.

- c. **Wallboard is a Significant Air Pollution Control and Solid Waste Problem (SO<sub>2</sub>, ASH).** It is recognized that gypsum wallboard can cause nuisance odor problems in landfills due to formation of hydrogen sulfide. However, combustion of wallboard in an energy-from-waste (efW) facility can also elevate emissions of sulfur dioxide (SO<sub>2</sub>) and increase ash generation. It is Covanta’s experience that wallboard is a significant portion of loads that contain C&D wood. It becomes crushed and inextricably mixed with C&D wood in the C&D waste processing phase. Since C&D wood is a waste ban item in landfills, this material is sometimes combusted by the Commonwealth’s efW facilities for energy recovery. Covanta often sees MSW loads “blended” with wallboard and C&D wood. While compliance with SO<sub>2</sub> emission limits at efW facilities is maintained when combusting this material, emissions are higher than they would be without it, and ash generation is increased.
- i. Increased Emissions of SO<sub>2</sub>. Combustion of gypsum wallboard (i.e. calcium sulfate or CaSO<sub>4</sub>) in an efW facility can substantially increase sulfur dioxide (SO<sub>2</sub>) emissions, a pollutant regulated under a National Ambient Air Quality Standard. The U.S. EPA recently (06/02/10) set a new National Ambient Air Quality Standard for SO<sub>2</sub> emissions across all of our facilities in the U.S. We

cannot meet our goal if more wallboard enters the solid waste stream. Increased wallboard in MSW works against both EPA's and Covanta's goals to reduce SO2 emissions to the environment.

- ii. Increased Ash Generation. Covanta's air pollution control scrubbers utilize lime (CaO) to eliminate SO2 emissions and meet our air pollution control permits. This adds significant mass to the combustion fly ash. Normally 1 ton of municipal solid waste processed in an efW facility generates far less than 1 ton of ash. However, combustion of 1 ton of wallboard generates far more than 1 ton of ash. Reducing residuals is a goal of both the Commonwealth's Solid Waste Master Plan and Covanta Energy. Increased wallboard in the solid waste stream works against both the Commonwealth and Covanta Energy.

**Response:** MassDEP agrees with this comment.

- d. **Include Existing C&D Wallboard in a Future Waste Ban.** We encourage the Department to expand the Wallboard Ban to existing, demolition wallboard sources as well. Covanta recognizes that recycling "old" wallboard is problematic due to potential contamination and acceptability of the material to recyclers. However, we encourage the Department to seek creative ways to safely divert this material from the solid waste stream.

**Response:** MassDEP has been actively discussing and reviewing recycling and reuse options for all gypsum wallboard waste material (both new construction waste and renovation/demolition waste) with MassDEP Gypsum Workgroup and C&D Subcommittee members. These discussions initially stimulated a recycling and reuse infrastructure for clean gypsum wallboard waste generated from new construction activities. However, recent discussions associated with renovation/demolition gypsum wallboard waste are encouraging and MassDEP will continue to evaluate and promote recycling and reuse outlets for gypsum wallboard waste generated from demolition and/or renovation projects through MassDEP's Gypsum Workgroup and C&D Subcommittee meetings.

4. **Comment:** Gypsum Recycling America (GRA) would like to express our support and encourage the Massachusetts Department of Environmental Protection (MassDEP) to amend its Solid Waste Regulations regarding clean gypsum wallboard waste materials.

GRA has been participating regularly over the last few years in MassDEP Construction and Demolition Materials Subcommittee and Gypsum Wallboard Workgroup meetings chaired by Jim McQuade. I applaud MassDEP for developing a methodical process to evaluate and develop a gypsum wallboard recycling infrastructure of which GRA plays a large role. I encourage MassDEP to complete this process by amending the solid waste regulations to ensure its success.

Gypsum Recycling America (GRA) has been recycling new construction wallboard waste here in Massachusetts since 2006. Each year we have doubled our inbound volume and

continue to make necessary modifications to our Cambridge plant, our equipment, etc. in order to handle increases in volume. We support any and all wallboard recycling initiatives and will continue to increase our volume through strategic partnerships with wallboard manufacturers, contractors, haulers, C&D processors, transfer stations, landfills, energy plants, etc.

GRA now provides statewide coverage throughout Massachusetts made possible by developing a strong network of collection and transfer points. So, no matter if a project is in Boston, Marblehead, Cape Cod, Pittsfield, Nantucket, etc. we can manage and recycle the wallboard waste, cost effectively and efficiently.

GRA is here to stay; renewed long-term lease, plans to expand our partner network, goal of bringing on additional employees and possibly adding a Western, MA storage facility of our own.

GRA is committed to doing whatever it takes in supporting this initiative including working with contractors/bidders, project managers, site owners, state officials, C&D processors, haulers, etc. We're also open to joining and participating in pre-bid conference and or any meeting set-up where our knowledge of the wallboard industry would be helpful.

I'm submitting a map of our collection and storage points along with this document. I am also submitting a support letter that was put together in collaboration with the Environmental Business Council of New England and all of their stakeholders back in October where they encourage MassDEP to proceed with this regulation amendment. (Attachments are included at the end of this Response to Comments document.)

**Response:** MassDEP notes Gypsum Recycling America's support of the disposal ban.

5. **Comment:** Regarding the proposed options 1 and 2 in the Background Document: In general these would appear to allow our current operations to continue in accordance with our DEP-approved Waste Ban Compliance Plan because we only admit trucks with less than a 5-CY capacity (except for our contract curbside trash and recycling vehicles). This proposal looks realistic and reflects real operational situations.

Proposal 2 states the cumulative amount of C&D including gypsum wallboard should not exceed 20% and wallboard with dimensions of 2 SF or less are exempt. Does this mean 2 SF of surface area (dimensions are linear)? Also our WBCP approval letter from DEP dated 12/5/07 states that we can aggregate loads of 5 CY or less of C&D materials such that the aggregated load may exceed the 20% by volume de minimis exemption for these materials. Can Option 2 be revised to reflect greater than 20 % per the approved WBCP?

**Response:** MassDEP will update its Waste Ban Guidance for Operators of Solid Waste Facilities to include clean gypsum wallboard. Specifically, Solid waste facilities whose approved waste ban compliance plan states that they do not receive waste in containers or vehicles with a capacity greater than 5 (five) cubic yards do not need to conduct record keeping or comprehensive load inspections. However, these facilities still need to monitor

all waste for banned materials as part of their ongoing waste ban monitoring. These solid waste facilities can aggregate loads of 5 cubic yards or less that may contain asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard into a solid waste container or vehicle whereby the aggregated load may then exceed the 20% by volume de minimis exemption for these materials. These aggregated loads may then be sent to a permitted solid waste facility for disposal and not be subject to MassDEP waste ban enforcement for asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard for disposal.

The Background Document reference to two square feet referred to surface area. However, after considering public comment, MassDEP will amend its “Guidance for Solid Waste Handling and Disposal Facilities on Compliance with MassDEP’s Waste Bans” to state loads with a cumulative total of 20% or less of asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard will not be considered failed loads. However, solid waste facilities that accept these loads must, to the greatest extent possible, separate and divert these materials from disposal (see comment number 3b).

6. **Comment:** This letter follows up the oral comments I made, in behalf of the MA Chapter of the National Solid Wastes Management Association (NSWMA), at the second public hearing the DEP held on this proposed regulation at its Worcester CERO, on June 16, 2010. We thank you for this opportunity to add to those remarks, with these written comments, as we are stakeholders with long term interests in these kinds of matters.

First, you should know your staff has done a great job, over the years, shepherding this issue along; his professionalism has not gone unnoticed by stakeholders in my group with interest in how construction and demolition wastes are managed in the state. So please accept our Chapter’s official recognition of his exceptional service and performance in all matters relating to construction and demolition issues.

By now, the MA DEP should know well that the MA Chapter of NSWMA is cool to the notion of waste bans. We have, for many years, tried to get the department to shift from a “facility waste ban” mode to an “individual generator responsibility” mode for the management of difficult to manage wastes, like clean gypsum wallboard. Without having much success from our repeated calls for such a change, we therefore find ourselves in situations like this, where the department is signaling its move ahead with another waste ban. So we have a choice, stay out of the current discussion; or to join in. We choose, by evidence of my oral testimony and these comments, to be active in the formal administrative process underpinning “waste ban” regulation – in spite of the department’s long term resistance to our call for a paradigm shift in how it approaches these kinds of issues.

The instant proposed clean gypsum drywall waste ban regulation is being proposed at a time when the department is in a position to affirm its own pre-requisites for such a new waste ban to proceed. By our count there are at least three companies in the region that will actually be in position to “reuse” such clean material and there exist multiple, local collection points for the aggregation of this material around the commonwealth too. There is a “failsafe” provision in the proposed regulation too that if these local “reuse” markets should be

unavailable, that facility operators will be relieved from compliance and not be subject to penalty. That said, we hope the current market sources not only continue their operations, but that they grow and thrive with the assistance of this new waste ban.

Before closing though, we want to raise some discussion about the exemption for small, municipal material handling facilities in this proposed waste ban. While we know there are severe intergovernmental sensitivities here between the department and MA localities, and know why such an exemption is typically written into waste ban promulgation by the department, we think there is a missed opportunity here for better material management. Without sacrificing the timeline or complicating the administrative process regarding this instant proposal, the department, after it is adopted as presented, should at least work with these small municipal facilities and explore whether they might host a clean gypsum drywall container on site for the collection of construction and demolition wastes, to be aggregated and sent for processing, as opposed to having just one container where small quantities of construction and demolition wastes are co-mingled with other wastes – and then using the small municipal facility exemption – have all the material in that load sent for disposal. While this practice is done in full compliance with the waste ban, there are resources in these loads that could be readily recovered at construction and demolition material processing facilities located all over the commonwealth.

So, please know the MA Chapter is basically okay with the development and likely promulgation of this new waste ban for clean gypsum wallboard.

**Response:** MassDEP has been encouraging source separation of C&D materials through several “case studies” which document the generator’s cost savings associated with diverting C&D materials at the point of generation. These case studies are available on MassDEP’s Construction and Demolition web page. Several Massachusetts contractors have instituted source separation as a policy to reduce overall C&D disposal costs.

7. **Comment:** The North Central Regional Solid Waste Cooperative, also known as MassToss, is a cooperative of 11 member communities interested in managing and appropriately disposing of waste. The members actively arrange and establish their operations to maximize segregation and recycling of material from their waste stream whether it be from curbside collection or drop off facilities. While minimum levels may not be exceeded for some bans to apply to their collections, the communities continue to strive to align their operations to maximize recycling. The support these communities need are reliable, cost-effective outlets for clean gypsum and all their recycling materials. We appreciate your work identifying these markets and vendors. We look forward to the results.

Thank you for hearing our needs to help make us more effective recyclers.

**Response:** MassDEP looks forward to working with MassToss and other communities in enhancing recycling markets.

8. **Comment:** Will gypsum wallboard still be allowed to enter processing facilities and is the goal that the processing facility will be separating the clean gypsum wallboard or would be

banned from disposal period. United Waste Management supports the proposed disposal ban, but wants the option to accept clean gypsum wallboard in mixed C&D loads and separate it.

**Response:** All solid waste facilities, including processing facilities, will be allowed to accept clean gypsum wallboard. The solid waste facilities approved waste ban compliance plan must demonstrate how waste ban materials, including clean gypsum wallboard, will be diverted from disposal.

9. **Comment:** What is going to be required of the generators? Is it going to be mandatory to have it separated at the point of generation?

**Response:** It is not mandatory to have clean gypsum wallboard separated at the point of generation. However, MassDEP has and will continue to support initiatives for source separation by generators. MassDEP has been encouraging source separation of C&D materials through several “case studies” which document the generator’s costs savings associated with diverting C&D materials at the point of generation. These case studies are available on MassDEP’s Construction and Demolition web page. Several Massachusetts contractors are instituting source separation as policy to reduce overall C&D disposal cost.

10. **Comment:** Define “Clean Gypsum Wallboard”. Is the current 20% exemption applicable? Is it a rejected load?

**Response:** The definition for clean gypsum wallboard was included in the proposed revisions made available for public comment.

Clean gypsum wallboard means gypsum wallboard that is not contaminated with paint, wallpaper, joint compound, adhesives, nails, or other substances after manufacture. Gypsum wallboard means a panel (also known as drywall) with a gypsum core and faced with a heavy paper or other material on both sides.

The nature of construction and demolition debris does not allow for the efficient separation of all materials in mixed loads. MassDEP requires all waste ban materials be diverted from disposal to the greatest extent possible. For purposes of deciding whether or not to undertake enforcement action, MassDEP currently considers loads containing greater than 20% asphalt pavement, brick, concrete, metal, wood and clean gypsum wallboard to be in non-compliance with waste ban requirements and such loads must also be considered failed loads and recorded as failed by the receiving facility. The receiving facility must follow its waste ban compliance plan and either reject the load or accept and separate the waste ban materials from the load.

11. **Comment:** Can the Department comment on “dirty wallboard”. Is there a plan to advance the ban to include dirty wallboard?

**Response:** MassDEP has been actively discussing and reviewing recycling and reuse options for all gypsum wallboard waste material (both new construction waste and

renovation/demolition waste) with MassDEP Gypsum Workgroup and C&D Subcommittee members. These discussions initially stimulated a recycling and reuse infrastructure for clean gypsum wallboard waste generated from new construction activities. However, recent discussions associated with renovation/demolition gypsum wallboard waste are encouraging and MassDEP will continue to evaluate and promote recycling and reuse outlets for gypsum wallboard waste generated from demolition and/or renovation projects through MassDEP's Gypsum Workgroup and C&D Subcommittee meetings.



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Conover + Company Communications  
**Robert D. Cox, Jr.**  
Bowditch & Dewey, LLP  
**Robert L. Delhome**  
Charter Environmental, Inc.  
**John P. DeVillars**  
Brownfields Recovery Corp.  
**Michael A. Diggin**  
TRC Companies, Inc.  
**Joseph G. Engels**  
Sabinorn, Head & Associates, Inc.  
**Michael D. Ernst**  
Tetra Tech EC, Inc.  
**Peter H. Goldberg**  
Tech Environmental, Inc.  
**Benjamin A. Harvey**  
E.L. Harvey & Sons  
**Robert C. Kirzick**  
Wilmar Hale, LLC  
**Brian C. Lesinski**  
EA Engineering, Science, and Technology, Inc.  
**G. Montgomery Lovejoy**  
AECOM  
**Arthur N. Mabbett**  
Mabbett & Associates, Inc.  
**Thomas A. Mackie**  
Mackie Shea O'Brian, PC  
**Shri Madhusudhan**  
Northeast Utilities  
**David L. O'Connor**  
ML Strategies, LLC  
**David M. Peter**  
Sits Restoration Technologies, LLC  
**John D. Rendall**  
CH2M Hill  
**Stephen M. Richmond, Esq.**  
Beveridge & Diamond, PC  
**Leo Pierre Roy**  
Vanasse Hangen Brustlin, Inc.  
**Russell A. Schneck**  
Haley & Aldrich  
**Michael J. Scipione**  
Weston & Sampson  
**Ruth H. Silman**  
Nixon Peabody LLP  
**J. Craig Swanson**  
Applied Science Associates  
**John J. Wiggins**  
University of Massachusetts  
**Russell J. Wilder**  
URS Corporation  
**Doug W. Youngen**  
Triunvirato Environmental, Inc.

October 19, 2009  
Laurie Burt, Commissioner  
Department of Environmental Protection  
1 Winter Street  
Boston, MA 02108

Dear Commissioner Burt,

The Environmental Business Council of New England (EBC) and our members would like to express our support and encourage the Massachusetts Department of Environmental Protection (Mass DEP) to amend its Solid Waste Regulations regarding clean gypsum wallboard waste material.

Our group of industry stakeholders includes construction & demolition material recyclers, haulers, transfer stations, wallboard manufacturing plants, the Association of General Contractors of Massachusetts (AGC), the Construction Materials Recycling Association (CMRA) and many individual companies. As you are aware, these participants in the EBC C & D Committee have been participating regularly over the last few years in MassDEP Construction and Demolition Materials Subcommittee and Gypsum Workgroup meetings chaired by Jim McQuade. We applaud MassDEP for developing a methodical process to evaluate and develop a gypsum wallboard recycling infrastructure. We are asking you to complete the process by amending MassDEP's solid waste regulations to ensure its success.

The MassDEP C&D Materials Subcommittee discussions have confirmed that the appropriate recycling and reuse infrastructure is now in place in Massachusetts to facilitate a disposal mandate on clean gypsum wallboard. At the last MassDEP C&D Subcommittee meeting, in October 2009, it was quite clear that the industry representatives overwhelmingly support MassDEP going forward with formal public hearings proposing to amend its solid waste regulations regarding the disposal and handling of clean gypsum wallboard waste material.

The proposed disposal ban on clean gypsum wallboard would both complement MassDEP's solid waste master plan's goals and further development of a recycling infrastructure and green job creation within the Commonwealth but we as a group feel there should be some limitations placed on this mandate such as

- Establish a project size that will now need to include mandatory new construction wallboard waste recycling. The DCAM made a construction specification change earlier this year that requires wallboard recycling on all projects of 20,000 sqft.
- Encourage source separation of new construction wallboard waste at the jobsite, rather than leaving it up to processors to try and achieve this feat.
- Establish an amount of clean gypsum wallboard waste that would be exempt from the ban.

Attached is a list of stakeholders along with their signatures showing support for amending the MassDEP Solid Waste Regulations regarding the disposal and handling of clean gypsum wallboard waste material. These stakeholders have participated in this process and agree to support this initiative so long as the above limitations are met.

Regards,

Daniel K. Moon  
President and Executive Director  
Environmental Business Council

