

**MAINE SOLID WASTE MANAGEMENT RULES
Basis Statement & Response to Comments**

General Provisions, 06-096 CMR 400
Landfill Siting, Design and Operation, 06-096 CMR 401
Processing Facilities, 06-096 CMR 409

Public Hearing Date: February 18, 2010
Comment Period Closed at 5 PM on March 1, 2010

Basis Statement

The draft revisions proposed for the *Maine Solid Waste Management Rules*, 06-096 CMR 400, 401 and 409 are in response to 38 MRSA § 1310-N(5-A)(B) directing the department to promulgate rules concerning waste recycling at solid waste processing facilities.

This statute requires that applicants for new or expanded solid waste processing facilities that are not exempted in the statute, and that generate residue requiring disposal must demonstrate that the facility will “recycle or process into fuel for combustion all waste accepted at the facility to the maximum extent practicable, but in no case at a rate less than 50%.” For purposes of the statute, the term ‘recycle’ includes the reuse of waste as landfill shaping or grading material, as alternative cover materials at landfills and as boiler fuel substitutes. Applicants must also demonstrate consistency with the recycling provisions of the State Recycling and Waste Management Plan. Existing solid waste processing facilities not exempted by the statute must annually demonstrate consistency with the recycling standards in their annual reports to the department.

In order to implement the statutory requirements, the proposed rules:

- Amend definitions in CMR 400;
- Establish characterization requirements for waste materials accepted by and disposed by the processing facility;
- Establish annual reporting requirements for waste characterization results, for waste quantity reporting and for demonstration of having met the recycling standard; and
- Establish standards for the use of construction and demolition debris process residues as grading or alternative cover material at landfills.

The proposed revisions were posted for public review and comment. Public comment could be made at a public hearing held on February 18, 2010 or by submitting written comments by 5 PM on March 1, 2010.

Response to Comments

Comments were received from the following parties:

ARC	John Doherty; Aggregate Recycling Corp., Eliot, ME
CAS	Toni King; Regional Engineer, Casella Waste Systems, Inc., Saco, ME
CS	Cheryl J. Spencer; Resident, Old Town, ME
ES	Edward S. Spencer; Resident, Old Town, ME
OT	Charles Heinonen; Code Enforcement Officer, City of Old Town, ME
PERC	E. Carlo White; Technical Manager, Penobscot Energy Recovery Co., Orrington, ME
PS	Paul Schroeder; Resident, Orono, ME
WMI	Sherwood Mckenney, Steve Poggi; Waste Management, Inc., Norridgewock, ME

CHAPTER 400 – GENERAL PROVISIONS

- Comment** – The proposed recycling and reuse standards for solid waste processing apply to new or expanded facilities. The term “expanded”, as it relates to processing facilities, does not appear to be defined in the rule. (PERC)

Response – *The department agrees with the commenter and has revised the definition of expand to include reference to processing facilities.*

CHAPTER 401 – LANDFILL SITING, DESIGN AND OPERATION

- Comment** – We agree that a landfill that accepts C&D processing fines as alternative daily cover should have some limits on the amount used for this purpose. Our landfills are operated within the proposed guidelines, only the required approvals and plans are new to us. (CAS)

Response – *No specific response needed.*

- Comment** – State specifically that the proposed transition provisions in Chapter 401.4(C)(8)(a) and 401.7(H)(10) apply to alternative daily cover from the processing of construction and demolition debris. (WMI)

Response – *Although the department believes that the rule is already clear in this regard, it has been revised further to address the commenter’s concern.*

- Comment** – Limiting the use of fines for daily cover is a good idea. (ES)

Response – *The department agrees with the commenter.*

CHAPTER 409 – PROCESSING FACILITIES

General

5. **Comment** – There is strong concern in our area that processing facilities are becoming nothing more than transfer stations for out-of-state waste. We support the proposed regulations. (OT)

Response – *No specific response needed.*

6. **Comment** – How many processing facilities are subject to the proposed rule? (PS)

Response – *The department has identified 25 facilities licensed to process construction and demolition debris (“CDD”), wood waste, metal, tires, and/or paper fiber that may be subject to the rule. Some of these facilities may not currently be operating.*

Recycling and Reuse Standard - “Maximum Extent Practicable”

7. **Comments** –

- A. Our concern with the proposed rules is how the “maximum extent practicable” standard would be applied. (CAS)
- B. How much recycling a processing facility can accomplish is a function of two principal factors: the amount of recyclable materials in the incoming raw C&D debris, and the design of the processing facility, the equipment and its operation. (CAS)
- C. Once permitted and constructed, it is simply impractical, unreasonable, and potentially very expensive, to revisit how the facility has been designed and built. If readily available information about facility operations confirms that the facility is being properly operated and that the C&D it receives has been processed by the equipment approved in the facility license, then recycling to maximum extent practicable is, by definition, being achieved. (CAS)

Summary Response – *The primary challenge in designing this rule was to determine what is meant by recycling to “the maximum extent practicable”. The legislature, in passing the bill that prompted this rulemaking, was clear with regard to its intent to minimize the volume of processing residues that are disposed at landfills. In drafting the rule, the department was mindful of the legislative intent, but also of the need to promulgate a rule that established achievable, flexible standards and requirements.*

The department determined and acknowledged, at the outset, that processing facilities are not all the same and can differ from each other in a variety of ways. The equipment and technologies used, types and volumes of wastes accepted, site designs and limitations, and operational practices all influence the nature and volumes of product(s) and residue created. In recognition of this, the rule does not establish a set percentage of waste to be recycled as the single standard which must be achieved by every facility. The rule recognizes that recycling to the “maximum extent practicable” will necessarily yield a different result from one facility to the next. The rule establishes standards and practices that allow for evaluation of the performance of processing facilities on a case by case basis.

The rule has two primary purposes: first, to establish a system by which to measure and document recycling at waste processing facilities; second, to serve as a driver, or a means to improve recycling rates when it is feasible and practical. The department intends to work with facilities to ensure that recycling rates are maximized; it does not anticipate requiring such measures as extensive siting and design modifications to achieve that goal. The rule specifically states that: “recycling or processing into fuel to the ‘maximum extent practicable’ means at a rate that results in recycling or reusing the greatest amount of waste possible and minimizing the amount of waste disposed to the greatest extent possible, without causing unreasonable increases in facility operating costs or unreasonable impacts on other aspects of the facility’s operation. Determination of the ‘maximum extent practicable’ includes consideration of the availability and cost of technologies and services, transportation and handling logistics, and overall costs that may be associated with recycling and reuse.”

The department does not agree that simply determining that a processing facility is being “properly operated” and that materials received have “been processed” necessarily demonstrates that wastes have been recycled to the “maximum extent practicable”. The department is aware of situations in which wastes which could have been recycled were sent for disposal because it was easier or cost less.

8. Comments –

- A.** It is not clear in the draft rules what percentage of inbound recyclable content DEP deems is feasible to actually extract through processing and recycle. (CAS)
- B.** No facility can recycle more than the recyclable fraction of the waste that arrives from its customers. (CAS)
- C.** What may be considered an “unreasonable increase in facility operating cost or unreasonable impacts on other aspects of the facility’s operation” for one recycler may not be the case for another. Our concern is having a

single standard evolve that could be reasonable to one operation, yet onerous for others. (ARC)

Summary Response – *The draft rule does not include a single recycling percentage deemed feasible by the department. In evaluating different approaches to drafting the rule, the department determined that it was not appropriate or practical to establish a single percentage that would constitute the standard. There were several reasons for this decision. First, and as the commenter correctly points out in another section, processing facilities are different from each other. This is true in terms of the equipment used, the nature of the waste streams accepted, and the sites themselves. These factors can, and do, affect the rates of recycling that are achievable at different facilities. Second, it is likely that the maximum practicable recycling rate will vary over time. This might occur for different reasons, but the department is hopeful that possible reasons might be that new options for recycling different waste streams will become available over time, and recycling capacity for certain waste streams will increase.*

9. **Comment** – The most direct way to increase the recycling and reuse of construction and demolition debris is to restrict landfilling of unprocessed C&D. Some states have put disposal bans on unprocessed C&D in place. The commenter would support such a ban in Maine. (CAS)

Response – *Although the adoption of waste bans in Maine has been discussed periodically, the department is concerned that a general ban on landfilling CDD may not, at this point, be appropriate.. A number of rural areas, in particular, continue to landfill much of their CDD waste because processing options are limited. Population density in states such as Massachusetts (which has a disposal ban) is such that sufficient processing capacity is much more likely to be developed.*

10. **Comment** – The few number of licensed C&D debris processing facilities have been singled out to be unduly burdened by this seemingly arbitrary recycling rate. (CAS)

Response – *Although CDD processing facilities have been central in the discussion concerning the law and the rule establishing the recycling standard, they are not the only type of processing facility subject to the standard. The department has identified 25 licensed processing facilities that may be subject to the rule, including facilities that process CDD, wood waste, metal, tires and paper fiber. The statute specifies that the following are exempt from the standard:*

“...solid waste composting facilities; solid waste processing facilities whose primary purpose is volume reduction or other waste processing or treatment prior to disposal of the waste in a landfill or incineration facility; solid waste processing facilities that are licensed in accordance with permit-by-rule

provisions of the department's rules; or solid waste processing facilities that are exempt from the requirements of the solid waste management rules related to processing facilities adopted by the board." (See also the response to Comment #6.)

11. **Comment** – The minimum recycling threshold of 50% can be easily and simply demonstrated by comparing total tonnage received by a facility to total tonnage recycled by the facility on an annual basis. (CAS)

Response – *Although a general understanding of whether the recycling rate meets the minimum threshold of 50% might be achieved through this simple comparison, the approach does not provide sufficient information to demonstrate that recycling has occurred to the "maximum extent practicable". More in-depth characterization allows evaluation of individual waste streams (e.g. wood, shingles, metal, etc.) and more informed discussion concerning their present and future potential for recycling.*

12. **Comment** – The consequences of erroneously concluding, based on faulty data, that a processing facility is not recycling "to the maximum extent practicable" are significant. (CAS)

Response – *The department is fully aware of the potential ramifications of finding a facility in violation of the recycling standard. Although the department made a concerted effort to create a reasonable, flexible, and facility specific approach to waste characterization and evaluation, it is recognized that the program and the use of a visual characterization approach in a regulatory context are new and untried. The department further recognizes that changes or adjustments in how the program is implemented may be necessary if issues concerning data gathering or accuracy arise. The department is committed to ongoing program evaluation and to working with individual facilities to develop characterization and reporting approaches that are practical and yield reliable data. The department is planning to establish an ongoing staff review group that will be responsible for collectively evaluating characterization data and reporting information received from processing facilities. This approach is intended to provide full and consistent review of the performance of each processing facility required to report under the rule.*

13. **Comment** – Some components of C&D, such as asphalt shingles, can be recycled, but only if they are source-separated and not comingled with other C&D. (CAS)

Response – *The department agrees that certain wastes can only be recycled if they are separated from other wastes. To address this issue in the context of reporting, the department is developing a reporting form that includes a section that identifies and measures wastes that are mixed with or attached to other wastes, making recycling infeasible or impractical.*

14. **Comment** - DEP conducted a sampling and characterization project at the three largest licensed C&D processing facilities in the state to determine what percentage recycling constituted the “maximum extent practicable”. The results highlighted the extreme variability of the waste stream and DEP was not able to accurately determine what percentage above 50 % might be “practicable”. (CAS)

- ✓ Does the staff intend for processing facilities to use the characterization procedures described in this report?
- ✓ Sampling data shows extreme variability in recyclable content. How will this variability be addressed in the rules?
- ✓ Based on the waste characterization conducted by the staff, and the information recently provided in the processing facility annual reports for calendar 2009, are these facilities recycling to the “maximum extent practicable”?
- ✓ If DEP concluded there was not enough data to describe the waste stream accurately, how can it state that it is 95% confident that the percentage of recyclable material is greater than 50%?
- ✓ If the Department cannot make that determination based on the currently available information, what additional information would be needed to make that determination?

Summary Response – *In late summer of 2009, the department conducted waste stream sampling and analysis at Maine’s three largest CDD processing facilities. The general purpose of the program was to gather as much information as possible about the operations of existing processing facilities, and more specifically, to better understand the nature of the waste streams accepted at those facilities. A sampling methodology was developed and samples of wastes delivered to each of the facilities were obtained on four separate days. Samples were subsequently sorted into material groups and weighed. Data collected was evaluated statistically and indicated highly variable waste streams. The data demonstrated the variability that can occur in the wastes that are accepted, both by facility and over time (by year, month, week, and hour). The processing facilities themselves are variable, employing different combinations of technologies, equipment and operating procedures. Confirmation of this variability and the potential limitations and challenges it imposes in terms of measurement and the development of appropriate regulatory standards, was the single most important outcome of the department’s project.*

The work was undertaken in order to enhance the department’s understanding of these operations prior to selecting an approach to drafting a rule to define what is meant by recycling to the “maximum extent practicable”. The sampling and analytical program helped to inform the department’s process of choosing an

appropriate regulatory approach, and highlighted very clearly some of the things that simply wouldn't work. The sampling procedures that the department used were not developed for use by facility owners to demonstrate compliance with the statutory recycling and reuse standard. Further, the project was not intended to determine if the facilities sampled were recycling to the "maximum extent practicable", or to confirm that the minimum required recycling rate of 50% is achievable. (See also responses to Comments #7 and # 8.)

15. Comments –

- A. Chapter 409(2)(C)(b) should be changed to eliminate the phrase “without causing unreasonable increases in facility operating costs”. The cost issue is not one that should be considered for exemption from the standard. Whatever it takes to achieve the standard is part of the cost of doing business. (CS)
- B. The clause about unreasonable costs should be eliminated. Citizens and their governments need to insist that industry meet environmental standards even if some additional costs occur. (ES)

Summary Response – *The rule defines recycling or processing into fuel to the “maximum extent practicable” as: “at a rate that results in recycling or reusing the greatest amount of waste possible and minimizing the amount of waste disposed to the greatest extent possible, without causing unreasonable increases in facility operating costs or unreasonable impacts on other aspects of the facility’s operation. Determination of the ‘maximum extent practicable’ includes consideration of the availability and cost of technologies and services, transportation and handling logistics, and overall costs that may be associated with recycling and reuse.”*

The department anticipates that implementation of the rule will, over time, cause recycling rates to increase. In order to achieve these increases, it may be necessary for processing facilities to make modifications to their operations. The department believes however, that consideration of cost as included in the definition of “maximum extent practicable” is appropriate and is consistent with legislative intent. If cost was not a factor, it would seem to follow that complete redesigns and equipment replacements at facilities not achieving the maximum possible recycling rates would become the standard. The approach presented in the rule anticipates that some additional cost may be incurred by a facility in order to increase recycling rates, but not to the point that the cost becomes “unreasonable” for that facility. The rule does not “exempt” facilities from the standard based on cost; it does recognize cost as a relevant factor in determining an appropriate recycling rate. The rule was not changed as a result of this comment.

Waste Characterization

16. Comments –

- A. Waste characterization is an unreliable method for determining the recyclability of unprocessed construction and demolition debris. (CAS)
- B. The result of a maximum extent practicable recycling rate based on waste characterization will be unavoidably arbitrary and subjective. (CAS)
- C. The proposed rules are far more burdensome than necessary and not likely to produce reliable and useable data. (CAS)

Summary Response – *The department believes that the characterization of waste processing facility inputs and outputs is a necessary step in order to gain a meaningful understanding of how to maximize recycling rates. The rule attempts to establish a flexible and facility specific approach to this characterization. Obviously, the most accurate and least subjective approach to characterization would be to require that all wastes be recorded by waste type and weight on a continuous basis. The department did not believe this method to be practically achievable or reasonable. Alternatively, the use of “visual characterization” was selected since it relies on periodic estimations of sample loads, which the department believes should provide sufficiently accurate results over time to provide useful information. Visual methods have been used to characterize waste in a number of other states. The department certainly recognizes that a degree of subjectivity is inherent in the method and that inaccuracies are possible. The agency is committed to working with individual facilities to establish appropriate and representative characterization protocols, and to ongoing review of the data and data gathering methods to determine if and when adjustments in the approach may be warranted. In order to ensure that facilities have sufficient time to develop and implement appropriate waste characterization plans, the department has revised the transition provision in the rule to require the first formal submission of waste characterization data and results beginning with the annual report due on February 28, 2012, and the submission of an interim report on September 1, 2011.*

17. **Comment** – Chapter 409 does not include detail on the waste characterization procedure itself – the methodology for determining recyclable content, who is qualified to conduct the characterization, and the frequency of characterization. The method and procedure should be made part of the rules and not be addressed through guidance. (CAS)

Response – *The rule takes a facility specific approach to determining whether or not recycling to the “maximum extent practicable” has been achieved, recognizing that waste processing facilities are not all the same and may need to*

take somewhat different approaches to demonstrating consistency with the recycling standard. (Also see response to Comment #7.) Although most of the discussion concerning the recycling standard has focused on construction and demolition debris processing facilities, the rule does, in fact, apply to other types of processing facilities as well. Facilities accepting frequent deliveries of mixed wastes (e.g. large scale CDD processing) will necessarily design a different characterization protocol than one that takes in smaller volumes of a more homogeneous waste stream (e.g. small scale metal processing). Variability in operations among facilities handling the same type of waste is also likely. Since characterization protocols are expected to be different from one facility to another, and because protocols may need to change, the department does not believe it is appropriate to include this type of detail in rule.

The department has drafted a guidance document (“Guidance: Visual Characterization for Incoming Waste at Processing Facilities”) which provides general guidance on designing and conducting visual waste characterizations. Such specifics as the frequency of sampling and the number of samples to be visually characterized will likely vary by facility and will need to be incorporated into the facility’s operating manual. The department intends to work with facilities that are subject to the rule as they plan their visual characterization programs.

18. **Comment** – The rules requiring characterization of both incoming and outgoing materials are long overdue and welcome. (ES)

Response – *No specific response needed.*

Reporting Requirements

19. **Comments** –

- A. DEP should develop a standard form or spreadsheet for reporting to assist in doing analysis and reviews of waste flows for public benefit determinations. It would be best if facilities provided the data required in Chapter 409(I)(1)(a)(b)and(c) on a monthly basis. (CS)
- B. When reporting forms are developed, they should be uniform throughout Maine. Each truck driver, scale person, and company employee should be required to sign the forms under legal penalty if the facts are distorted.

Summary Response – *The department plans to distribute standardized reporting forms for the data required.*

20. **Comment** – It should be clarified in Chapter 409.4(I)(2) that the requirement to report the origin of wastes accepted by the facility means reporting the State or Province from which a waste is generated. (PERC)

Response – Chapter 409.4(I)(2) has been revised in response to the comment to clarify what information is required. In addition to the State or Province of origin, the rule requires reporting of the type of generator from which waste is received (e.g. industrial demolition project, municipal transfer station waste, building contractor, etc.).

- 21. Comment** – Why should interested parties have to wait for an annual report on waste flows? Reports should be available as soon as they are made. Monthly tabulations are not too much burden. (ES)

Response – The purpose of this rule is to gather data and then report on the rates of recycling at processing facilities. In order to gather data that is representative of the whole, characterization results from sufficient numbers of samples taken at appropriate frequencies must be obtained. Facilities already provide annual reports to the department; this rule requires that the reports now include a determination of the recycling rate. The department does not believe that data from a single month's characterization effort is sufficient to draw conclusions from, and that a full year is more appropriate. If it is necessary to examine a facility's operating records outside of the annual report, the current rules require that those records be available for the department's inspection. Some facilities are required by special license condition to provide more frequent reports on certain aspects of the operation, which may include waste flows.