Report: Status of Rulemaking Concerning Recycling at Solid Waste Processing Facilities

Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

February 2010

Contact: Paula M. Clark, Director
Division of Solid Waste Management
207-287-7718

REPORT: STATUS OF RULEMAKING CONCERNING RECYCLING AT SOLID WASTE PROCESSING FACILITIES

I. INTRODUCTION

This report is submitted to the Joint Standing Committee on Natural Resources pursuant to Public Law 2009 Chapter 412 (An Act to Improve Landfill Capacity). Chapter 412 required the Department of Environmental Protection ("department" or "DEP") to submit a report "relating to the development and status of rules that define the term 'to the maximum extent practicable' as that term is used in the Maine Revised Statutes, Title 38, section 1310-N, subsection 5-A, paragraph B, subparagraph (2). Chapter 412 further established that those rules shall be adopted by April 1, 2010. In connection with, and to be included in the report, the department was also directed to "investigate current recycling technologies and practices as they relate to the creation of fine material, known as 'fines', that is qualified to be used as alternative daily cover at landfills under Title 38, section 1310-N, subsection 5-A, paragraph B, subparagraph (2). Public Law 2009 Chapter 412 is attached as **Appendix A.**

II. BACKGROUND

38 MRSA §1310-N(5-A)(B) as enacted by PL 2007 Chapter 583 established new standards applicable to solid waste processing facilities that generate residue requiring disposal. A primary goal put forward by the Legislature when it enacted these provisions was to ensure that recycling and reuse of wastes accepted at processing facilities is maximized and the volume of waste disposed is minimized to avoid unnecessary consumption of valuable landfill capacity. This goal is consistent with the state's statutory waste management hierarchy which favors recycling and reuse over disposal. Further, concern was expressed that under certain circumstances there could potentially be sufficient incentive to motivate the landfilling of waste even if that waste was recyclable or reusable.

The 2007 statutory provisions enacted in Chapter 583 require that applicants for new or expanded solid waste processing facilities that will generate residue requiring disposal 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%." These applicants are also required to demonstrate consistency with the recycling provisions of the State Recycling and Waste Management Plan. Existing solid waste processing facilities that generate residue requiring disposal must annually demonstrate consistency with the recycling standards in their annual reports to the department.

The law specifically includes (but does not limit to) reuse of processing facility waste as shaping, grading or alternative daily cover materials at landfills; aggregate material in construction; and, boiler fuel substitutes, as forms of recycling for purposes of calculating a recycling rate. Residues from the processing of construction and demolition

debris ("CDD"), in particular, often contain wallboard/gypsum which can contribute to the formation of hydrogen sulfide gas in landfills. At high enough concentrations, hydrogen sulfide gas can cause nuisance odor problems and pose public health risks. Use of "fines" from CDD processing as alternative daily cover has been documented to cause or exacerbate gas management problems at some Maine landfills.

III. RULEMAKING

Prior to selecting an approach and drafting a proposed rule to define what is meant by recycling "to the maximum extent practicable", the department attempted to gather as much information as possible about the operations of existing processing facilities. In order to better understand the nature of the CDD waste stream (which is the waste stream of primary interest in developing the rule) the department conducted waste stream sampling and analysis at the three currently operating Maine CDD processing facilities in late summer 2009. 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 demonstrate 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.

The department has prepared a draft rule which has been posted to public hearing by the Board of Environmental Protection. The hearing is scheduled for February 18, 2010.

In developing the rule, the department considered a range of qualitative and quantitative approaches, but determined ultimately that the rule would need to accommodate the variability in wastes and facilities that had been documented. As a result, the proposed rule does not establish for instance, a single set of regulatory recycling standards by waste type applicable to all facilities (e.g. 65% of all wood wastes must be recycled or reused). Rather, the proposed rule establishes waste characterization requirements for wastes accepted by processing facilities and for residues that leave the facilities. Facilities would be expected to develop characterization methods that are appropriate to their specific operations and circumstances. The department anticipates that visual assessments for waste types and volumes/weights will generally provide adequate data for this purpose. The department is developing and will provide specific guidance on the conduct of this type of visual assessment.

The department proposes to evaluate performance on a facility by facility basis to determine whether the facility has recycled wastes accepted "to the maximum extent practicable, but in no case at a rate less than 50%." To facilitate the department's evaluation, the rule proposes reporting requirements which include:

- Complete descriptions of all wastes accepted, all products and secondary materials produced, and residues leaving the facility for disposal; and,

- A demonstration that all wastes accepted at the facility have been recycled to the maximum extent practicable through:
  - evaluation and analysis of waste characterization data and results for all wastes accepted at the facility and all residues leaving the facility for disposal;
  - calculation of the overall recycling rate for the year; and,
  - a narrative that includes a detailed comparison of wastes accepted at the facility, products and secondary materials produced for recycling/reuse, and residues leaving the facility for disposal; discussion concerning the calculated recycling rate achieved for the year, including specific explanation of why that rate represents recycling to the maximum extent practicable; explanation and justification for why wastes and residues disposed over the preceding year could not be recycled or reused.

The rule further proposes to establish specific standards and requirements related to the use of residues from the processing of construction and demolition debris as cover or grading material at landfills. The draft rule provides that use of these residues will only be considered at landfills with department approved active gas collection and control systems. In addition, residues applied as cover would not be allowed to exceed 9 inches in depth, and proposals for the use of residue must evaluate potential impacts on a number of aspects of the landfill's operation.

A January 7, 2010 memo to the Board of Environmental Protection concerning the proposed rules, and the draft amendments to CMR 06-096 Chapters 400 (General Provisions), 401 (Landfill Siting, Design and Operation), and 409 (Processing Facilities) as posted for public hearing are attached as **Appendix B**.

IV. CURRENT RECYCLING TECHNOLOGIES AND PRACTICES - CREATION OF "FINES"

In response to the directive in PL 2009 Chapter 412 that the department "investigate current recycling technologies and practices as they relate to the creation of fine material, known as 'fines', that is qualified to be used as alternative daily cover at landfills", the department conducted a review of the operations of the three CDD processing facilities currently in operation in Maine, and of the types of technologies and practices which may be employed at processing facilities that may affect the amount of gypsum present in the "fines".

In New England, CDD processing is often undertaken to recover a number of potentially marketable materials. These may include:

- Separating and crushing rocks, bricks and concrete from construction or demolition sites to product an aggregate, construction fill or base material that can be used in road or structure construction;

- Separating clean lumber and wood materials to produce a wood boiler fuel to be burned at biomass energy plants; and,
- Separating and recycling other relatively high-value items such as clean corrugated cardboard, clean plastics and metals.

Processing of CDD materials, including wood, normally can include manual and mechanical sorting, grinding and cleaning. There are currently 3 operating CDD processing facilities in Maine. These are: Aggregate Recycling Corporation (ARC) in Eliot; KTI Biofuels, Inc. (KTI) in Lewiston; and Plan-It Recycling and Transfer, Inc. (Plan-It) in Gorham. Each of these facilities was evaluated and observed by department staff in preparation for the rulemaking effort.

"Fines" commonly means materials created during the processing of construction and demolition debris (CDD) that remain as a residue after the materials targeted for processing are removed and recycled. The term "fines" originally referred to materials that passed through screens meant to capture materials above a certain marketable size. Now the term commonly also refers to other non-bulky waste residues rejected by equipment or personnel at a CDD processing facility, and does not refer exclusively to the smallest screened material.

CDD processing facility fines, particularly when containing significant portions of inert material can be suitable for use as an alternative daily landfill cover or as shaping and grading material at landfills. However, use of CDD fines for this purpose can present problems due to the presence of gypsum from wallboard. Gypsum is a naturally occurring mineral that has been used in the manufacture of wallboard and plaster related products used in interior residential construction for decades. Natural gypsum primarily consists of hydrated calcium sulfate. Gypsum, when subjected to conditions commonly found in solid waste landfills (moisture and the lack of oxygen) can be readily broken down by sulfate reducing bacteria into hydrogen sulfide (H_2S) which can cause nuisance odor conditions, and at higher concentrations, public health impacts.

Gypsum can occur at relatively high levels in CDD processing fines because of gypsum's fragility and tendency to break down into fine particles when subjected to almost any of the mechanical processes commonly used at CDD processing facilities. Materials handling at processing facilities including shredding, screening and sorting can crumble and pulverize gypsum, causing it to easily blend with fines and other residues.

In selecting an appropriate approach to the current rulemaking, the department considered different ways to control the potential effects of gypsum in landfill settings. Ultimately, it was determined that development of comprehensive standards for the placement of gypsum containing residues as cover or grading material in landfills was a far more effective and practical method than attempting to ensure the removal of gypsum during processing.

LIST OF APPENDICES

- **Appendix A** – Public Law 2009 Chapter 412, An Act to Improve Landfill Capacity

- **Appendix B** – January 7, 2010 Department Memo to the Board of Environmental Protection; and, Draft Amendments to Maine Solid Waste Management Rules:

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

APPENDIX A

Public Law 2009 Chapter 412
An Act to Improve Landfill Capacity

An Act To Improve Landfill Capacity

Be it enacted by the People of the State of Maine as follows:

PART A

Sec. A-1. 38 MRSA §1310-N, sub-§5-A, ¶B, as enacted by PL 2007, c. 583, §4, is amended to read:

B. The provisions of this paragraph apply to solid waste processing facilities that generate residue requiring disposal.

(1) An applicant for a new or expanded solid waste processing facility that generates residue requiring disposal shall demonstrate that all requirements of this paragraph will be satisfied. On an annual basis, an owner or operator of a licensed solid waste processing facility that generates residue requiring disposal shall demonstrate compliance with all the requirements of this paragraph. The annual demonstration of compliance must be included as an element of the facility's annual report to the department submitted in conformance with the provisions of subsection 6-D, paragraph B and department rules.

(2) A solid waste processing facility that generates residue requiring disposal shall 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 this subsection, "recycle" includes, but is not limited to, reuse of waste as shaping, grading or alternative daily cover materials at landfills; aggregate material in construction; and boiler fuel substitutes.

(3) A solid waste processing facility subject to this paragraph shall demonstrate consistency with the recycling provisions of the state plan.

(4) The requirements of this paragraph do not apply to 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.

(5) If the department amends the rules relating to fuel quality for construction and demolition wood fuel and the amendment adversely affects the ability of a solid waste

processing facility to meet the 50% standard in subparagraph (2), the department may not enforce the requirements of subparagraph (2) against that processing facility and the department shall submit to the joint standing committee of the Legislature having jurisdiction over natural resources matters a report relating to the rule change. The joint standing committee of the Legislature having jurisdiction over natural resources matters may submit legislation related to the report.

The department shall adopt rules to implement the provisions of this paragraph. Rules adopted pursuant to this paragraph are ~~major substantive~~routine technical rules as defined in Title 5, chapter 375, subchapter 2-A. ~~The department may not enforce the recycling requirements of subparagraph (2) prior to the effective date of rules that define "to the maximum extent practicable."~~

Sec. A-2. Processing facility recycling rulemaking; status report.

1. Report. By February 1, 2010, the Department of Environmental Protection shall submit to the Joint Standing Committee on Natural Resources a report relating to the development and status of rules that define the term "to the maximum extent practicable" as that term is used in the Maine Revised Statutes, Title 38, section 1310-N, subsection 5-A, paragraph B, subparagraph (2). In connection with the report, the department shall investigate current recycling technologies and practices as they relate to the creation of fine material, known as "fines," that is qualified to be used as alternative daily cover at landfills under Title 38, section 1310-N, subsection 5-A, paragraph B, subparagraph (2). The results of that investigation must be included in the department's report. The Joint Standing Committee on Natural Resources may submit legislation related to the report to the Second Regular Session of the 124th Legislature.

2. Rulemaking. By April 1, 2010, the Department of Environmental Protection shall adopt rules that define the term "to the maximum extent practicable" as that term is used in the Maine Revised Statutes, Title 38, section 1310-N, subsection 5-A, paragraph B, subparagraph (2).

PART B

Sec. B-1. PL 2007, c. 583, §10 is amended to read:

Sec. 10. Duties and responsibilities for managing solid waste. By July 31, 2008, the Department of Environmental Protection and the Executive Department, State Planning Office, referred to in this section as "the agencies," shall develop a system by which solid waste management activities are performed by them. By August 30, 2008, the agencies shall implement elements of the system that do not require statutory changes. By January 5, 2009, the agencies shall submit a report on the system to the joint standing committee of the Legislature having jurisdiction over natural resources matters. The report must identify any legislative changes that are necessary for the implementation of the system and must report on the elements of the system that have been implemented by the agencies. The report must also include an analysis of the agencies' respective ability to control the different and various waste streams flowing into state-owned landfills. The committee may report out legislation relating to the report to the ~~First~~ Second Regular Session of the 124th Legislature.

Sec. B-2. Review and assessment of solid waste management policy; state-

owned landfills. The Executive Department, State Planning Office shall work collaboratively with other state agencies and interested parties to conduct a review and assessment of the State's solid waste management policy and submit a report relating to the review and assessment. The review and assessment must include, but is not limited to:

1. Whether funding for management and oversight of state-owned landfills is sufficient to carry out the legislative intent of the Maine Revised Statutes, Title 38, chapter 13;

2. Whether management or operational modifications should be instituted at the state-owned landfill;

3. Whether amendments to the operating services agreement between the State and the operator of the state-owned landfill should be negotiated to eliminate fuel services agreements and caps on tipping fees and to establish annual maximum fill rates; and

4. Whether the restriction on the expansion of commercial solid waste disposal facilities in Title 38, section 1310-X, subsection 3, paragraph B should be amended to allow a currently existing facility that is not under order or agreement to close to expand onto any contiguous property that the licensee may own or acquire.

By January 5, 2010, the office shall report its findings and recommendations, including any draft legislation necessary to implement its recommendations, to the Joint Standing Committee on Natural Resources, which is authorized to submit legislation related to the report to the Second Regular Session of the 124th Legislature.

Effective September 12, 2009

APPENDIX B

- **January 7, 2010 Department Memo to the Board of Environmental Protection**

- **Draft Amendments to Maine Solid Waste Management Rules:**

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

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

To: **Members of the Board of Environmental Protection**
From: **Paula M. Clark, Director, Division of Solid Waste Management, Bureau of Remediation and Waste Management**
Date: **January 7, 2010**
Re: **Chapters 400, 401,409 – Revisions to the Solid Waste Management Rules Concerning Recycling Rates at Solid Waste Processing Facilities**

Statutory and Regulatory Reference: The regulatory framework for the proposed rulemaking is the Maine Solid Waste Management Rules Chapter 400 – General Provisions, Chapter 401 – Landfill Siting, Design and Operation, and Chapter 409 – Processing Facilities. 38 MRSA §1310-N(5-A)(B) directs the department to promulgate rules concerning recycling of waste at processing facilities.

Scope: The proposed rules establish standards and requirements applicable to solid waste processing facilities that generate residue requiring disposal. The rule also establishes standards related to the use of construction and demolition debris processing residue as cover or grading material at landfills.

Description: The department requests the Board's approval to post proposed revisions to Chapters 400, 401 and 409 to public hearing. The above cited statute requires that applicants for new or expanded solid waste processing facilities that will generate residue requiring disposal 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%." These applicants must also demonstrate consistency with the recycling provisions of the State Recycling and Waste Management Plan. Existing solid waste processing facilities that generate residue requiring disposal must annually demonstrate consistency with the recycling standards in their annual reports to the department. The statute requires that the department adopt rules to implement these provisions and to define the term "maximum extent practicable" by April 1, 2010.

The proposed rule revisions establish waste characterization requirements for wastes accepted by processing facilities and for residues that leave the facilities for disposal. Proposed reporting requirements include waste characterization results, a demonstration that the recycling standard has been achieved, and an explanation/justification of the rate of residue disposal. The proposed rule also includes specific standards and requirements related to the use of residues from the processing of construction and demolition debris ("CDD") as cover or grading material at landfills. The statute specifically recognizes these uses as "recycling" for purposes of evaluating compliance with the recycling provisions of the law. The draft rule prescribes the circumstances and conditions under

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

which CDD processing residues can be used for these purposes. These residues contain wallboard/gypsum which can contribute to the formation of hydrogen sulfide gas in landfills.

Environmental Issues: The rule seeks to maximize recycling and reduce volumes of waste disposed. Accomplishing this outcome is consistent with the state's statutory hierarchy of solid waste management and helps to conserve landfill capacity. The draft provisions related to the use of CDD processing residues for landfill cover or grading material were specifically designed to protect public health and safety by ensuring that hydrogen sulfide emissions from landfills are within established limits.

Department Recommendation: The department recommends that the Board post the proposed rule revisions to public hearing.

Estimated Time of Presentation: 20 minutes.

Department of Environmental Protection

Maine Solid Waste Management Rules

CHAPTER 400

GENERAL PROVISIONS

Last Revised:

February 18, 2009

Chapter 400: GENERAL PROVISIONS

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ponds or rivers, streams or brooks, as these terms are defined in 38 MRSA section 480-B of the Natural Resources Protection Act.

Kk. Public entity. "Public entity" means a municipality or group of municipalities, a public waste disposal corporation under 38 MRSA section 1304-B, a refuse disposal district under 38 MRSA section 1702, *et seq.*, a county, State or Federal agency.

Ll. Public viewing area. "Public viewing area" means an area designated for the public to view scenic areas, historical sites, unusual natural features or public monuments. These areas include but are not limited to scenic highways; public easements; scenic turnouts; public monuments; and national, state or municipal parks.

Mm. Pug mill. "Pug mill" means any lined mixing chamber that uses an emulsified or cut-back asphalt binding agent to produce a bituminous product from an aggregate.

Nn. Putrescible Waste. "Putrescible waste" means solid waste that contains organic matter that can be rapidly decomposed by microorganisms, which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease carrying organisms such as rodents and flies.

Oo. Quantifiable noise standard. "Quantifiable noise standard" means a numerical limit governing noise that has been duly enacted by ordinance by the municipality.

Pp. R.C.R.A. "R.C.R.A." means the Resource Conservation and Recovery Act, 42 U.S.C.A. section 6901 *et seq.*

Qq. Recycle / **Recycling.** "Recycle" and "Recycling" means the collection, separation, recovery and sale or reuse of materials that would otherwise be disposed of or processed as waste or the mechanized separation of waste, other than through combustion, and the creation and recovery of reusable materials other than as a fuel for the generation of electricity.

Rr. Refuse-derived fuel. "Refuse-derived fuel" means municipal solid waste which has been processed prior to combustion to increase the heat input value of the waste.

Ss. Residual. "Residual" means solid wastes generated from municipal, commercial or industrial facilities that may be suitable for agronomic utilization. These materials may include: food, fiber, vegetable and fish processing wastes; dredge materials; sludges; dewatered septage; and ash from wood or sludge fired boilers.

Tt. Residue. "Residue" means waste generated as a result of the handling, processing, composting, incineration, or recycling of solid waste including, without limitation, front end process residue, fines and other residues from construction demolition debris processing facilities, and ash from incineration facilities and non-compostable compost screenings.

Uu. Routine operation. "Routine operation" means, for the purpose of regulating noise, the regular and recurrent operation of a solid waste facility and the sound sources associated with that operation .

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Department of Environmental Protection

Maine Solid Waste Management Rules:

CHAPTER 401

LANDFILL SITING, DESIGN AND OPERATION

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(5) Set-backs and Buffer Strips. The set-backs and buffer strips approved by the Department must be maintained.

(6) Cell Development Plan. Within the limitations of the approved design for each landfill, operations manuals must include a cell development plan to meet the design standard of section 2.D(6) and 2.F(7). The plan must consist of a conceptual plan for the life of the landfill and the detailed plan for the current two year period as approved as part of the application or most recent annual report, whichever is applicable.

(7) Compaction. For all landfills waste must be compacted once per operating day and more often as necessary unless otherwise approved by the Department. Waste must be compacted before the placement of cover material.

From December 16 through March 31 in the southern zone and from November 16 through April 30 in the northern zone, solid waste may be deposited at a landfill without compaction or cover if the total lift height during this period does not exceed 12 feet and the total horizontal area covered with waste does not exceed 30,000 square feet. The Department may require daily cover during these time periods if site-specific conditions indicate it is needed.

NOTE: Northern zone and southern zone are defined in Chapter 400, section 1 of these Rules.

(8) Cover. For all special waste and municipal solid waste landfills the cover material placement criteria are as follows:

(a) Daily cover is required, except that daily cover is not required to be placed on pulp and paper mill sludge. A coarse soil material, such as sand or gravel, for secure landfills and a soil material for non-secure landfills must be placed and compacted to a minimum depth of 6 inches in thickness over all exposed waste at the end of each day of operation to completely and effectively cover the solid waste. Other materials or wastes may be proposed as alternative daily cover by a landfill owner or operator for approval by the Department. Use of residues from the processing of construction and demolition debris will be considered only at a landfill with a Department-approved active gas collection and control system. Alternative daily cover proposals must meet the following standards and include the following submission requirements:

(i) The alternative daily cover must perform as an acceptable substitute for the soil material it is replacing, i.e. it must be able to control nuisance odor, dust, litter and vectors;

(ii) The alternative daily cover must not exceed 9" in depth after compaction;

(iii) The alternative daily cover proposal must consider and evaluate impacts on gas quantity and quality from application of the material;

(iv) Unless the material proposed as an alternative daily cover has no odor or potential to create a nuisance odor, the submittal must include an odor management plan that includes provisions for the prevention and control

of nuisance odor during routine operations, and a process for responding to any odor complaints received; and

(v) Use of the alternative daily cover must cease if the Department determines its use causes a nuisance odor or negatively impacts the performance of the facility's active gas collection and control system.

Transition provision: At landfills where an alternative daily cover was previously approved, the landfill owner/operator must submit, within 30 days of the effective date of the rule, a demonstration that the facility will comply with the above standards. Landfills without a Department-approved active gas collection and control system must cease use of residues from the processing of construction and demolition debris as alternative daily cover within 30 days of the effective date of this rule.

(b) Where final grade has been reached or on areas where disposal will not take place within the next 6 months, intermediate cover must be placed within 30 days after cessation of disposal, or as soon as weather conditions allow. Intermediate cover must remain in place in accordance with the requirements of the approved cell development plan. Intermediate cover must consist of 18" of soil or a geosynthetic cover material with a minimum thickness of 20 mils. The soil must be a clay or well-graded till with a minimum of 35% fines and no stones larger than 4 inches. It must be placed and compacted in at least two lifts. Other cover systems or wastes may be proposed by a landfill owner or operator for approval by the Department.

Intermediate cover must completely and effectively cover the solid waste and be graded to limit infiltration and promote runoff. If soil is used these areas must be seeded and mulched to prevent erosion. Within the limitations of the approved design for each landfill, surface water run-off must be directed off of the landfill site. The intermediate cover must be removed before any further landfilling may occur in areas where cover has previously been placed.

The soil component of the intermediate cover may be considered part of the final cover system if the soil and its placement meet the design standards and construction requirements of Section 5. Owner/operators must include these standards and requirements in the operations manual for installation of a phased final cover system as approved by the Department.

NOTE: Construction packages prepared to implement this requirement do not need to be included in the Operations Manual.

(c) For owners/operators approved to construct a phased final cover system throughout the operational life of the landfill, the phased final cover system must be constructed and documented in accordance with the approved plans and specifications. A phased final cover system documented to have been constructed in accordance with the approved plans and specifications will be accepted as the cover system element of final closure provided that the facility is not posing an unreasonable risk to public health or the environment at the time of final closure.

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(ii) A minimum fines content of 35%; and

(iii) A maximum particle size of less than or equal to 3 inches, except as noted in subparagraph (g)(v) below.

(g) Any barrier soil layer proposed for use in a landfill cover system must be designed to produce a homogeneous layer that eliminates soil clods and preferential flow paths, protect the geomembrane or GCL from puncture, if applicable, and reduce hydraulic conductivity to the maximum extent practicable. To accomplish this the barrier soil layer must meet the following requirements:

(i) Have a minimum in-place density of 90% of the maximum dry density as measured by ASTM D698 (Standard Proctor);

(ii) Be compacted using a kneading action to remold the soil between 0- 4% above optimum moisture content as determined using ASTM D-698 (Standard Proctor);

(iii) Be constructed in lifts with a maximum compacted lift thickness of 9 inches;

(iv) Be constructed in a manner which provides for lift interface bonding; and

(v) Have a maximum stone size less than or equal to 1 inch in the surface layer of the final lift if the barrier soil layer is the prepared subgrade for the geomembrane.

Applicants proposing test pad programs in accordance with the requirements of section 5.J may propose alternative criteria to the requirements of section 5.G(2)(f) and (g) in accordance with the results and conclusions of the test pad program.

(3) Base Preparation Below Cover Systems. Base preparation must provide support that will facilitate construction of the cover system and minimize the potential for disruption of continuity and function of the final cover during post-closure. Applicants that propose to regrade waste or to bring in significant quantities of wastes to facilitate establishing post-consolidation slopes shall demonstrate that the base preparation is adequate for the proposed cover system. The design of the cover system base layer must consider and evaluate any impacts to the gas collection and control system and the leachate management systems.

The use of residues from the processing of CDD as a shaping and grading material will be considered only at a landfill with a Department-approved active gas collection and control system. Applicants that propose to bring in significant quantities of wastes, including residues from the processing of CDD, to facilitate establishing post-consolidation slopes must demonstrate the following:

(a) The waste material will perform as an acceptable base material for the proposed cover system;

(b) The quantity of waste material to be used is appropriate for establishing the final slopes;

(c) The gas collection and control system can handle gas calculated to be generated by the waste material; and

(d) The leachate management system can handle additional leachate calculated to be generated by the waste material.

Unless the material proposed to be used in shaping and grading the slopes has no odor or potential to create a nuisance odor, the submittal must include an odor management plan that includes provisions for the prevention and control of nuisance odor, and a process for responding to any odor complaints received.

(4) Allowable slopes. The minimum allowable post-consolidation slope is 5 percent. The maximum allowable post-consolidation slope is 33 percent unless otherwise approved by the Department. Slopes must be designed to promote run-off in a manner that will prevent erosion of the final cover.

(5) Vegetation. The final cover must be limed, fertilized, seeded, and mulched as soon as possible after the cover is installed to promote evapotranspiration and to stabilize against erosion. Other areas around the waste disposal area that present a potential for erosion must also be revegetated. The lime, fertilizer, seed and mulch specifications must meet or exceed standards as established by "The Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices" prepared by the Maine Soil and Water Conservation Commission, March, 1991.

Manufactured topsoil may be approved on a site-specific basis. When manufactured topsoil is proposed, the applicant must submit to the Department for review and approval a plan to correct any vegetative cover inadequacies resulting from the use of manufactured topsoil. The plan must identify the funding source for such potential corrective action work.

(6) Corrective Action Requirements. Owners of landfills with contamination of ground and/or surface water may be required to implement corrective action(s) to meet the performance standards of Section 5.B(1). For these landfills, the owner shall immediately implement any approved corrective action, and shall demonstrate that the corrective action will be successful prior to the end of the post-closure monitoring and maintenance period. Corrective action designs will be considered on a site-specific basis.

H. Alternative Design Process. Alternatives to the design standards and requirements of this section may be proposed by the applicant. A variance request pursuant to the provisions of Chapter 400, section 13 is not required for proposals which meet the requirements of this paragraph. The applicant shall submit the following documentation to clearly and convincingly demonstrate technical equivalency of the proposed alternative:

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(8) Side Slopes. Side slopes of the disposal area shall not be steeper than 3 horizontal to 1 vertical.

(9) Compaction. Wastes shall be compacted on a weekly basis if the facility is operated less than 5 days per week and on a daily basis if operated for 5 or more days per week. From December 16 through March 31 in the southern zone and from November 16 through April 30 in the northern zone, solid waste may be deposited at the landfill without compaction or cover if the total lift height during this period does not exceed 12 feet and the total horizontal area covered with waste does not exceed 20,000 square feet.

(10) Cell Development Plan. All landfills must operate in accordance with the cell development plan submitted to and approved by the Department, as required by section 7.F(2)(b).

The active area shall be covered with soil or other approved material at a frequency so that no more than 1/2 acre remains uncovered at any time. Operational cover shall be placed and compacted to 6 inches thickness in such a manner that the waste is effectively covered. Cover shall be placed in accordance with the requirements of the approved cell development plan.

Use of residues from the processing of construction and demolition debris will be considered only at a landfill with a Department-approved active gas collection and control system. Alternative daily cover proposals must meet the following standards and include the following submission requirements:

(i) The alternative daily cover must perform as an acceptable substitute for the soil material it is replacing, i.e. it must be able to control nuisance odor, dust, litter and vectors;

(ii) The alternative daily cover must not exceed 9" in depth after compaction;

(iii) The alternative daily cover proposal must consider and evaluate impacts on gas quantity and quality from application of the material;

(iv) Unless the material proposed as an alternative daily cover has no odor or potential to create a nuisance odor, the submittal must include an odor management plan that includes provisions for the prevention and control of nuisance odor during routine operations, and a process for responding to any odor complaints received; and

(v) Use of the alternative daily cover must cease if the Department determines its use causes a nuisance odor or negative impacts the performance of the facility's active gas collection and control system.

Transition provision: At landfills where an alternative daily cover was previously approved, the landfill owner/operator must submit, within 30 days of the effective date of the rule, a demonstration that the facility will comply with the above standards. Landfills without a Department-approved active gas collection and control system must cease use of residues from the processing of construction and demolition debris as alternative daily cover within 30 days of the effective date of this rule.

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06-096

Department of Environmental Protection

Maine Solid Waste Management Rules:

CHAPTER 409

PROCESSING FACILITIES

Last Revised:

February 18, 2009

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conducted in accordance with Department guidelines, provided that processing is also conducted under Department supervision.

NOTE: The beneficial use of treated soils from Departmental supervised clean-ups are exempt from regulation under these rules provided they are used at the contamination site pursuant to Chapter 418, section 2(Q). Beneficial use off the site is subject to the rules in Chapter 418 (Beneficial Use) or 419 (Agronomic Utilization).

(5) Facilities blending or mixing residuals if regulated under a program license issued pursuant to Chapter 419;

(6) Facilities that stabilize sewage sludge with alkaline agents at a sewage treatment plant if regulated under a program license issued pursuant to Chapter 419;

(7) Facilities that lime stabilize septage at a septage land application site or septage storage site licensed under Chapter 420;

(8) Mobile tire shredder or rim crusher or cutter when the unit is operated on the site of a licensed solid waste facility for less than 30 days per year, and all processed material is removed to Department approved facilities within 30 days of completion of processing;

(9) Mobile white goods, metal, or car shredder or crusher when the unit is operated on site for less than 30 days per year, and all processed material is removed to Department approved facilities within 30 days of completion of processing; and

NOTE: Facilities handling junk vehicles must comply with 30-A M.R.S.A. section 3752 et. seq.

(10) Mobile chippers processing demolition debris for use as fuel when the chipper is located at a licensed transfer station, provided processed material is removed within 30 days of processing.

(11) Transfer stations that are licensed pursuant to Chapter 402 and that compact, bale or otherwise process solid waste consistent with the normal operation of a transfer station.

(12) Solids dewatering units, such as belt filter presses, located at a wastewater treatment plant, but not including composting facilities which require a license pursuant to *Composting Facilities*, 06-096 CMR 410 (effective ~~XXXXXX~~February 18, 2009);

(13) Mobile tire shredder or rim crusher or cutter when the unit is operated under Department supervision on the site of a Department approved scrap tire remediation project

C. Transition and relationship to other solid waste rules.

(1) Existing processing facilities:

(a) all existing solid waste processing facilities must comply with the applicable operating requirements of this chapter.

(b) The following previously issued licenses for existing facilities remain in effect, subject to the conditions specified in Chapter 400 section 3.E:

(ii) wood waste processing facilities licensed pursuant to Chapter 404 (effective May 24, 1989, repealed on November 2, 1998); and

(iii) processing facilities licensed pursuant to Chapter 409 (effective May 24, 1989, repealed on November 2, 1998).

(2) Composting of solid waste: The composting of solid waste is subject to the licensing requirements of the *Maine Solid Waste Management Rules: Composting Facilities*, 06-096 CMR 410 (effective).

(3) Beneficial Use of Solid Waste: The beneficial use, other than agronomic utilization, of a secondary material produced by a processing facility is subject to Chapter 418.

(4) Agronomic utilization of residuals: The agronomic utilization of a residual produced by a processing facility is subject to Chapter 419.

(5) Storage:

(a) The storage of solid wastes at processing facilities is governed by this chapter, except that, when warranted by unusual circumstances, the Department will require compliance with appropriate siting, design, or operational standards from Chapter 402.

NOTE: An unusual circumstance might be the collection and storage of used motor oil at a processing facility.

(b) Secondary materials produced at processing facilities and stored at other locations in Maine for beneficial use must meet the applicable standards of Chapter 402 and 419.

(c) Residuals produced at processing facilities and stored at other locations in Maine prior to agronomic utilization must meet the applicable standards of Chapter 419.

(6) Analysis: Characterization of waste and secondary materials required by this Chapter must be done in accordance with the applicable provisions of Chapter 405 unless otherwise specified.

2. **General Licensing Requirements.** Except for processing facilities licensed under sections 5-8, any person proposing to establish a new solid waste processing facility or alter an existing solid waste processing facility, other than a composting facility, must obtain a license pursuant to Chapter 400, section 4 and sections 2-4 of this chapter.

A. **Processing Facility General Siting Standards.** At the time the application is filed with the Department, the waste handling area at a proposed processing facility may not be located:

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(1) Closer than 100 feet to the solid waste boundary of an active, inactive or closed solid waste landfill;

(2) Within a 100 year flood plain;

(3) Within 100 feet of a protected natural resource;

(4) In, on or over a protected natural resource, or on land adjacent to the following areas, without first obtaining a permit pursuant to 38 M.R.S.A. section 480-A et seq.:

(a) A coastal wetland, great pond, river, stream or brook, or significant wildlife habitat contained within a freshwater wetland; or

(b) Freshwater wetlands consisting of or containing:

(i) under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, except for artificial ponds or impoundments; or

(ii) peatlands dominated by shrubs, sedges and sphagnum moss;

(5) Closer than 300 feet to off-site water supply wells or water supply springs;

(6) Closer than 100 feet to public roads and property boundaries;

(7) Closer than 10,000 feet to any airport runway used by turbojet aircraft, or within 5,000 feet of any airport runway used by only piston-type aircraft, when putrescible waste is to be handled outdoors in an uncovered or exposed condition; and

(8) For tire processing facilities, closer than 1000 feet to residences in existence at the time the application is filed, other than residences owned by the facility owner or operator. For all other processing facilities, closer than 500 feet to residences in existence at the time the application is filed, other than residences owned by the facility owner or operator.

(9) For outside tire storage areas, closer than 300 feet to a sand and gravel aquifer.

B. Processing Facility General Design Standards.

(1) The facility process must be designed to achieve the intended purpose of the facility as described in the application. Specifically, the facility must be designed: to successfully reduce the volume or change the chemical or physical characteristics of the solid waste for a specified purpose, or to produce a product meeting ~~the~~ all relevant specifications for ~~needed to~~ distribution and use of~~e~~ the product as intended. When the facility's purpose is to produce a residual or secondary material for beneficial use in Maine, that residual or secondary material must meet the applicable standards in Chapter 418 or Chapter 419.

(2) Design Capacity: The facility design must include processing systems and storage areas of sufficient capacity to accommodate seasonal throughput of all materials that are delivered to and generated by the facility. Areas proposed for storage of tires, both incoming and

processed, at tire processing facilities must be no greater than the applicant demonstrates to the Department are necessary for the viable operation of the processing facility. No single pile of whole tires may exceed 5,000 square feet; no single pile of chipped or processed tires may exceed 10,000 square feet. The height of any pile must not exceed 10 feet.

(3) Environmental Monitoring Program Design: A processing facility which has been determined by the Department to pose a potential threat to public health or safety or the environment because of the nature of the wastes handled at the solid waste facility and/or the location, design and operation of the facility, must have a monitoring program designed and implemented in accordance with the applicable requirements of Chapter 405.

(4) Leachate Control: The facility design must include provisions to contain, collect and treat any leachate and wash waters generated at the facility.

(5) Clean-up: The facility design must include provisions for the regular wash down or dry clean-up of the facility.

(6) The facility design must include suitable barriers or fencing and gates to prevent unauthorized persons access to the site. .

(7) Fire Breaks: Fire breaks consisting of the following must be included in the design of all tire processing facilities:

(a) each outside storage area for tires, both before and after processing, must be separated by a 50 foot minimum mineral strip; and

(b) a 100 foot fire break must be established and maintained around the ground surface perimeter of the tire storage area(s). All slash, brush, debris, and other combustible material must be removed for a distance of 100 feet in all directions outside the perimeter. Other fire control measures may be proposed if the local fire ranger and the jurisdictional fire chief for the municipality in which the facility is located give written approval of the alternative measures. A copy of the written approval must be submitted with the application.

C. Recycling and Reuse Standards. An applicant for a new or expanded solid waste processing facility that generates residue requiring disposal must demonstrate that the proposed facility:

(a) 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 this subsection, "recycle" includes, but is not limited to: reuse of waste as shaping, grading or alternative daily cover materials at landfills, aggregate material in construction, and boiler fuel substitutes, when such reuse is consistent with all applicable requirements of the *Solid Waste Management Rules*, 06-096 CMR 400 to 419; and,

(b) is consistent with the recycling provisions of the state waste management and recycling plan as defined at 38 MRS §1303-C(35).

The requirements of this subsection do not apply to solid waste composting facilities, solid waste

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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 these rules, or solid waste processing facilities that are otherwise exempt from the requirements of this Chapter.

For purposes of this Chapter, 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.

3. **Application Requirements.** Any person seeking to establish a solid waste processing facility under sections 2-4 must provide information sufficient to meet the standards and submissions requirements of Chapter 400. The applicant must submit to the Department, on forms developed by the Department, the following information:

A. General Information.

(1) Description: A brief description of the proposed processing facility.

(2) Topographic Map. The most recent full size U.S. Geological Survey topographic map (7 1/2 minute series, if available) of the area, showing the location of the proposed facility, the property boundary, and, if handling putrescible materials, airports within 10,000 feet of the site. The map must include all surrounding areas within one mile of the proposed site.

(3) Aquifer Map. A copy of the most recent Maine Geological Survey Significant Aquifer Map or Sand and Gravel Aquifer map with the facility site and waste handling area clearly delineated.

(4) Tax Map: A copy of the local tax map(s) marked with the facility site and the names and addresses of abutters on the appropriate lots. For processing facilities proposing outdoor processing or storage, the map must indicate all residences within 1,000 feet of the waste handling area.

(5) Flood Plain Map. The most recent Federal Emergency Management Agency flood insurance rate maps of the 100-year frequency floodplain, with the location of the facility marked, when the site is within 1/4 mile of a 100 year floodplain.

B. Site Design Characteristics. An engineering design must be submitted as part of an application. The sophistication of engineering design required to develop a site for a processing facility varies according to the physical characteristics of the site, the size and complexity of the facility, and the nature of the wastes to be processed. The following components must be included in the engineering design:

(1) Site Plan. A detailed plan of the area within 1,000 feet of the waste handling area for tire processing facilities or 500 feet of the waste handling area for all other processing facilities,

with a scale of 1 inch = 100 feet or a larger engineering scale, clearly showing, if applicable: all structures; protected natural resources; roads; property boundaries; receiving, processing, curing and storage areas; residences; erosion and sedimentation control features; odor control structures; water supply wells and springs; water quality monitoring points; and barriers or fencing and gates to prevent unauthorized persons access to the site. For facilities involving outdoor handling of putrescible wastes in an uncovered or exposed condition, this plan must also note the direction and distance of airports within 10,000 feet of the waste and waste handling area.

(2) Plan Views of the Structures and Utilities. A large scale construction plan view drawing, with a minimum engineering scale of 1 inch = 40 feet, clearly showing any building(s) with foundations; processing unit(s); utilities; leachate, storm water, and erosion and sedimentation control details; and, if applicable, odor control systems.

(3) Demonstration for Size of Storage Areas at Tire Processing Facilities: A description, including sizes, of the proposed storage areas for both incoming and processed tires, and a demonstration that the areas proposed for storage are no greater than the minimum size needed for viable operation of the facility. The demonstration must include information on the volume of tires to be delivered to the facility and a management plan identifying markets and a schedule for removal of the processed tires. The storage areas must also meet the requirements of sections 2.B(2) and 2.B(7).

(4) Financial Surety for Tire Processing Facilities: Tire processing facilities must provide evidence of financial surety in the form of escrow accounts or other sureties that ensure the availability of adequate funds for clean-up operations or final closure of the tire processing facility.

(5) Contracts for Processed Tires: A copy of signed contracts or letters of intent to accept all processed tires. Documents must indicate the maximum quantity of processed tires that will be accepted.

C. Process Design Characteristics.

~~(1) Process Design:~~ A general description of the facility's waste processing system must be submitted. The complexity and degree of detail of the description will vary depending on the magnitude and complexity of the process. This must include, if applicable, process flow diagram(s), the source, volume, and characteristics of wastes to be received, the products and wastes to be generated; the methods to be utilized to mix, process and store wastes and products; the processing equipment to be used on site; provisions for characterization, including analytical information demonstrating that the incoming wastes meet the classification proposed to be handled at the facility; an identification of applicable standards for the product that the facility will produce, including, when applicable, an identification of secondary material standards from Chapter 418, and/or residual standards from Chapter 419, or other applicable standards from these rules, and a description of how these standards will be met.

D. Residual and Secondary Mmaterial Distribution Plan. Where residuals are proposed for agronomic utilization, the applicant must also submit the application information required for licensing a utilization program under Chapter 419. Where secondary materials secondary

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(2) The operator must provide and maintain in good repair access roads at the facility site.

(3) The operator must post appropriate signs and/or other means necessary to indicate clearly where waste is to be unloaded and where the separate storage areas within the facility are located.

(4) Adequate space must be maintained to allow the unobstructed movement of emergency personnel and equipment to operating areas of the facility.

D. Acceptance and Distribution of Solid Waste.

(1) The processing facility may only accept wastes for which the facility has been specifically designed and permitted by the Department. Incoming wastes must undergo a visual inspection and, if appropriate, analysis to ensure that only wastes allowed by the facility license are accepted at the facility. All other wastes must be removed and handled at an approved facility.

(2) All processing facilities must implement a Hazardous and Special Waste Handling and Exclusion Plan developed in accordance with Chapter 400, section 9.

(3) Secondary materials, including processed residuals, must be distributed in accordance with the provisions of Chapter 418 or Chapter 419, or other applicable standards of these rules.

(4) Waste Disposal: The operator must have procedures in place, prior to the start of operation, for disposal of bypass and other solid waste generated by the processing facility, including contingency procedures for implementation during emergencies and shutdown periods. The operator must also maintain a valid contract with a solid waste facility which has Department approval to accept the waste.

(5) Wood treated with arsenic or pentachlorophenol may not be beneficially used in the production of biomass fuel or mulch by the facility. Wood for biomass fuel shall meet the fuel standards in Chapter 418, section 6(B)(4). All such treated wood must be stored separately from wood to be used as biomass fuel or mulch and disposed in an approved solid waste disposal facility.

(6) Use of residues from the processing of construction and demolition debris as landfill alternative daily or operational cover or as shaping and grading material must meet the applicable provisions of Chapter 401, sections 4(C)(8), 5(G)(3), and 7(H)(10).

E. Waste Characterization

(1) Facilities that generate residue requiring disposal and that are subject to the provisions of section 4(I)(1) below, must conduct ongoing characterization of wastes accepted at the facility and of residues that leave the facility for disposal. Waste characterization will be conducted in accordance with a method approved by the Department and incorporated by the operator into the facility's operations manual. Data and results from waste characterizations will be recorded and submitted on forms developed and provided by the Department.

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(2) Transition. Existing processing facilities subject to the requirements of this subsection must submit the required waste characterization data and results with the annual report due February 28, 2011 for the period beginning immediately following the department's approval of the facility's waste characterization plan required in Section 4(E) to December 31, 2010.

NOTE: The department expects that visual assessment of waste types and for estimations of volumes/weights will generally provide adequate data for waste characterization for processing facilities subject to section 4(E). Each facility however, will be required to establish methods appropriate to its specific operation and circumstances, and designed to yield accurate and representative data and information for reporting purposes. The department anticipates developing specific guidance on visual assessment methods for distribution to regulated facilities.

FE. Odor Control.

(1) The facility must be operated to prevent nuisance odors at occupied buildings.

(2) Facility personnel must immediately contact the Department's Solid Waste Division to report odor complaints received by the facility. The Department, after investigation, will determine whether the facility has caused a nuisance odor at an occupied building. Facility personnel must, within 30 days of a Department determination of an off-site odor nuisance, report to the Department's Solid Waste Division, in writing, causes of odor generation and completed or planned follow-up action to minimize, control, and treat the odors from the facility.

GF.——Record Keeping. The facility operator must make provisions to keep the following records and make them available for Departmental inspection and copying for the duration of the facility operation and a minimum of 2 years after facility closure:

(1) When applicable, as-built engineering drawings of the facility, including a schematic showing the relationship of the various subsystems;

(2) Analytical data results required by these rules or license conditions;

(3) An operations manual meeting the requirements of this section ~~4.A~~;

(4) Copies of periodic and annual reports submitted to the Department; and

(5) Stabilization facility operations log. An operations log must be kept at a processing facility that reduces the pathogen content, reduces vector attraction properties, reduces putresibility, reduces the carbon to nitrogen ratio, or otherwise stabilizes a residual. The operations log must contain the source and volume of residuals received on a daily basis; the mixture of residuals processed at the facility; process monitoring data; date, time and type of samples obtained from the facility; and volume and type of residuals distributed from the facility on a daily basis, including to whom the residuals are distributed.

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~~H~~G.——**Periodic Reporting.** Licensees must submit periodic reports to the Department containing the results of environmental monitoring, including waste characterization, and any other information required in accordance with the facility license.

~~I~~H. **Annual Report.** By February 28th of each year, the facility operator must pay an annual facility reporting fee, as established by the Department, and submit an annual report to the Department for review and approval for the previous calendar year. The annual report must include a summary of activity at the processing facility during the past year, including a discussion of any odor problems, and a discussion of any factors, either at the facility or elsewhere, which affected the operation, design, or environmental monitoring program of the facility. The annual report must summarize the facility's activities, and at a minimum include the following:

~~(1) Weight or volume and type of wastes received by the facility;~~

~~(2) Weight or volume of product and secondary material produced;~~

~~(3) Weight or volume of secondary material used on-site and distributed off-site;~~

~~(4) Weight or volume of waste and secondary material stored on site as of December 31;~~

(1) For solid waste processing facilities that generate residue requiring disposal:

(a) a complete description of all wastes accepted at the facility including:

i. types and weights (or estimated weights) by origin;
ii. data and results of the characterization of all wastes accepted at the facility as required in subsection 4(E) of this rule;

(b) a complete description of all products and secondary materials produced at the facility including:

i. types and weights (or estimated weights) produced;
ii. types and weights (or estimated weights) used on-site; and,
iii. types, weights (or estimated weights), destinations and uses of materials distributed off-site;

(c) a complete description of residues leaving the facility for disposal including:

i. types and weights (or estimated weights) by destination; and,
ii. data and results of the characterization of all residues leaving the facility for disposal as required in subsection 4(E);

(d) a demonstration that all wastes accepted at the facility have been recycled or processed into fuel for combustion to the maximum extent practicable, but in no case at a rate less than 50%. For purposes of this subsection, "recycle" includes but is not limited to: reuse of waste as shaping, grading, or alternative daily cover materials at landfills; aggregate material in construction; and boiler fuel substitutes. The demonstration shall be made through:

i. evaluation and analysis of the waste characterization data and results required for all wastes accepted at the facility and all residues leaving the facility for disposal;

ii. calculation of the recycling rate for the past year; and,

iii. a narrative that includes a detailed comparison of wastes accepted at the facility, products and secondary materials produced for recycling/reuse, and residues leaving the facility for disposal; discussion concerning the calculated recycling rate achieved for the year, including specific explanation of why that rate represents recycling to the maximum extent practicable; explanation and justification for why wastes and residues disposed over the preceding year could not be recycled or reused; and,

(e) a demonstration that the facility and its operation are consistent with the recycling provisions of the state waste management and recycling plan (as defined at 38 MRS §1303-C(35).

The requirements of this paragraph do not apply to 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 these rules, or solid waste processing facilities that are otherwise exempt from the requirements of this Chapter.

(2) For all other processing facilities not subject to subsection 1 above:

(a) types and weights (or estimated weights) by origin, of all wastes accepted at the facility;
(b) types and weights (or estimated weights) of all products and secondary materials produced, used on-site, or distributed off-site (by destination and including uses);
(c) types and weights (or estimated weights) by destination, of residues leaving the facility for disposal .

(3) For all processing facilities:

(a) types and weights (or estimated weights) of wastes, products, secondary materials, and residues stored on site as of December 31 of the reporting year;
(b) A general summary of the processing operation including problems encountered and follow-up actions, changes to the facility operation, and a summary of odor or other complaints received by the facility during the previous year;
(c) Other alterations to the facility site not requiring Departmental approval that have occurred during the reporting year. Minor aspects of the facility site proposed to be changed in the current year may be described in the annual report. Changes handled in this manner are those that do not require licensing under minor revision or amendment provisions of Chapter 400; and,
(d) A summary and evaluation of the past year's monitoring program results.

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~~(65) A general summary of the processing operation including problems encountered and follow-up actions, changes to the facility operation, and a summary of odor or other complaints received by the facility during the previous year;~~

~~(76) Other alterations to the facility site not requiring Departmental approval that have occurred during the reporting year. Minor aspects of the facility site proposed to be changed in the current year may be described in the annual report. Changes handled in this manner are those that do not require licensing under minor revision or amendment provisions of Chapter 400; and~~

~~(77) A summary and evaluation of the past year's monitoring program results.~~

H. Facility Closure.

(1) Closure Plan: The operator of a processing facility shall submit a closure plan to the Department, for review and approval, a minimum of 90 days prior to the proposed date of the permanent closure of a solid waste processing facility. The plan must include:

(a) An outline of the proposed closing operation;

(b) A schedule for the removal of all stored wastes and secondary materials

(c) The intended destination of all stored wastes and secondary materials.

(2) Closure Performance Standard. The facility must be closed in a manner that minimizes the need for further maintenance; and so that the closed facility will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance. At a minimum, the applicant must remove all wastes and secondary materials from the facility; and broom clean the facility structures and equipment.

5. Permit By Rule for Processing Soils Contaminated with Virgin-Oil.

A. Applicability. The permit-by-rule licensing provisions of this section apply to the processing of soil contaminated with virgin oil by any of the following facilities that meet all of the standards of this section:

(1) Existing asphalt batching plant;

(2) Temporary asphalt batching plant that operates for less than 30 days each year; or

(3) Cement kiln.

Failure to meet any of these standards will require formal application to the Department for a license to develop and operate the solid waste processing facility under sections 2-3. The Department assumes that the processing of soil contaminated with virgin oil in strict conformity with these permit-by-rule provisions will meet the standards of Chapter 400,