# 06-096

**Department of Environmental Protection**

**Maine Solid Waste Management Rules:**

**CHAPTER 409**

**PROCESSING FACILITIES**

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**Chapter 409: PROCESSING FACILITIES**

**SUMMARY**: This Chapter establishes the rules of the Department for the siting, design, operation and closure of solid waste processing facilities.

**1. Applicability.** This Chapter applies to solid waste processing facilities. A solid waste processing facility license under Chapter 400 and this Chapter is required to locate, establish, construct or operate any new processing facility or to alter an existing processing facility, unless that facility is exempt from licensing under these rules.

**A. Facilities Subject to the Requirements of this Chapter.** A processing facility is any land area, structure, equipment, machine, device, system, or combination thereof, other than licensed incinerators, that is operated to reduce the volume or change the chemical or physical characteristics of solid waste. Processing facilities include but are not limited to facilities that employ shredding, baling, mechanical and magnetic separation, or other stabilization techniques to reduce or otherwise change the nature of solid waste. Processing facilities include, but are not limited to, facilities that:

(1) Shred automobiles, white goods, scrap metal, machinery, vehicles, tires, demolition debris, wood waste or other similar materials;

(2) Shred, separate, or otherwise increase the heat input value of municipal solid waste to produce refuse-derived fuel;

(3) Aerobically digest, anaerobically digest, air dry, heat dry, heat treat, lime stabilize, pelletize, chemically treat, irradiate, pasteurize, or otherwise reduce pathogens or stabilize residuals, including dewatered septage, to render the residual suitable for agronomic utilization in accordance with the standards of Chapter 419;

(4) Process solid waste to render the waste suitable for beneficial use in accordance with the standards of Chapter 418.

**B. Facilities Not Subject to the Requirements of this Chapter.** In addition to the facilities listed in Chapter 400, section 2, the following facilities are exempt from the requirements of this Chapter:

(1) Facilities that process solid waste generated at the same facility prior to reuse in that facility.

(2) A compactor, baler or shredder used inside an industrial plant where such a process exclusively serves that plant.

(3) Mobile chippers for the chipping of bark, brush, stumps, slabs, edgings and slash when the chipper is used on a site for less than 30 days, and, unless otherwise allowed by these rules, all processed material is removed from the site in accordance with these rules within 30 days of completion of processing.

(4) Processing systems that are used for treatment of contaminated soils from sites being remediated under Department supervision, including land spreading or land farming 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;

(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:

1. 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:

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

(ii) 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.

(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 5-7, 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:

(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 all relevant specifications for distribution and use of 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) Odor Control:

1. For facilities other than those that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage, the facility design must include provisions for the control of nuisance odor consistent with the provisions of Section 4(F)(1) of this Chapter.
2. For facilities that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage, the facility design must include provisions for the control of nuisance odor consistent with the provisions of Section 4(F)(2) of this Chapter.

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

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

(8) 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:

(1) 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,

(2) Is consistent with the recycling provisions of the state waste management and recycling plan as defined at 38 M.R.S. §1303-C(35).

The requirements of this subsection 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.

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.** 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 Material 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 material are proposed for other beneficial uses, the applicant must also submit the application information required for licensing under Chapter 418. The applicant must describe the disposition of other materials generated at the facility that are not covered under a beneficial use or agronomic utilization program. The Department may require financial assurance in the form of a letter of credit, escrow account, or other approved financial security to finance the cost of potential remediation or disposal of waste, residuals, or secondary materials.

**E. Operations Manual.** The applicant must submit an operations manual, containing the information required in section 4.

**F. Environmental Monitoring Plan.** The applicant must submit an environmental monitoring plan when required by the Department pursuant to section 2.B(3), including a waste characterization analytical work plan, if required by the Department.

**G. Odor Control**

1. For facilities other than those that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage: Based upon the location, design, and operational procedures of the proposed facility, the applicant must demonstrate that the facility will not cause an odor nuisance. This demonstration may be done by one or more of the following:

(a) A demonstration that the materials handled at the facility do not generate objectionable odors;

(b) Comparative studies with similar existing facilities taking into account similarities and differences in materials handled, facility design, throughput, proximity to neighbors, meteorological conditions and topography; or

(c) Odor dispersion modeling studies demonstrating that the facility will not cause more than a one hour average odor impact of 2 dilutions to threshold (2D/T), in any calendar year at any occupied buildings.

NOTE: D/T is defined by ASTM Method 679-91, "Standard Practice for Determination of Odor and Taste Thresholds By a Forced-Choice Ascending Concentration Series Method of Limits". The applicant may wish to demonstrate that it will meet this standard at the processing facility's property boundary, to ensure that nuisance odors at occupied buildings will not occur if the areas near the facility are subsequently developed.

1. For facilities that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage: An odor management plan must be submitted that includes provisions for the prevention and control of nuisance odor during routine operations and construction activities based upon the location, design, and operational procedures of the proposed facility. The odor management plan must include the following information:
   1. An evaluation of potential process odor and potential off-site influences;
   2. Proposed methods to prevent nuisance odor which may include systems for the enclosure of nuisance odor-producing materials and processes;
   3. Proposed methods to control, reduce or eliminate nuisance odor; and proposed uses of technology and an evaluation of the effectiveness of the technology to control, reduce or eliminate nuisance odor;
   4. Provisions to monitor and formally document facility nuisance odor if identified at the property boundary;
   5. A procedure to formally record and respond to odor complaints in a timely manner;
   6. Odor response procedures that include response actions to be implemented after the occurrence of an odor event or the determination of nuisance odor is made. The procedures must outline the responsibilities of facility personnel, notification provisions to the Department and the community, and include potential actions that may be taken along with associated timeframes for implementation;
   7. Provisions to maintain and store back-up equipment or obtain replacement equipment in a timely manner during shutdown and malfunction events that is critical to the function of the odor control system; and

(h) Provisions to record odor related information including monitoring data, including any exceedances.

NOTE: The scope and detail required in this plan will be determined by facility-specific conditions including the complexity of the facility and waste type(s). Existing plans may be used to demonstrate compliance provided that they meet, or are modified to meet, the requirements of this section.

**H. Subsurface Investigation.** A subsurface investigation must be conducted whenever the proposed processing facility includes the use of in-situ soils as any part of a soil base pad for handling solid wastes, includes structures requiring foundations, or includes subsurface wastewater holding or disposal systems. The data must consist of soil test data in the proposed handling areas from a certified professional describing and evaluating the surficial geology and/or the subsurface soils. This information must demonstrate that the facility design is compatible with the site's soil characteristics, as determined by applicable engineering standards of practice.

**4. Operating Requirements.** Each processing facility subject to licensing under sections 2 and 3 must comply with the following operating requirements. Facilities with an existing solid waste processing license are required to operate in compliance with the provisions of this section.

1. **Operations Manual.** All processing facilities must be operated in accordance with an operations manual that incorporates the operating requirements of its license and these rules. This manual must be available for inspection by Department staff during normal business hours. The facility's operations manual must be updated to keep current with revisions at the processing facility.

The operations manual must include the information that would enable supervisory and operating personnel, and persons evaluating the operation of the facility, to determine the sequence of operation, policies, procedures, monitoring, maintenance, inspection, and legal requirements that must be followed for safe and environmentally sound operation on a daily and yearly basis. The manual must address all items contained in this section. The manual must also include a copy of the facility license, any amendments and revisions to that license, and a copy of the applicable sections of the most recent Solid Waste Management Regulations.

**B. General Operations**

(1) Operations: The processing facility must be operated and maintained in a manner that assures it will meet the approved design requirements, will not contaminate ground or surface water, contaminate the ambient air, constitute a hazard to health or welfare, create a nuisance, and will meet the standards in Chapter 400, section 4.

(2) Personnel: The operation of the processing facility must be under the overall supervision and direction of a person qualified and experienced in the operation of that type of facility or, in the case of an innovative design, be adequately trained by responsible personnel in the operation of the facility. The facility operator must take whatever measures are necessary to familiarize all personnel responsible for operation of the facility with relevant sections of the operations manual.

(3) Equipment: Equipment must be sufficient to meet the requirements, and the operator must provide for the routine maintenance of equipment.

(4) Environmental Monitoring: The operator must implement the approved environmental monitoring program, including any required waste characterization.

(5) Fire Protection: The operator shall prevent and control fires at the processing facility by complying with at least the following:

(a) Arrange for a nearby fire department to provide emergency service whenever called;

(b) Develop and implement a plan to prevent spontaneous combustion in wood waste and residual piles, as applicable; and

(c) Provide and maintain sufficient on-site equipment, such as detachable fire extinguishers, for minor fires.

(d) At tire processing facilities, unless alternative fire protection measures were previously licensed by the Department, a fire break consisting of the following must be maintained:

(i) each outside storage area for tires, both before and after processing, must be separated by a thirty-five foot minimum mineral strip.

(ii) a 100 foot fire break must be constructed around the ground surface perimeter of the 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 proposed to be located give written approval of the alternative measures. A copy of the written approval must be retained in the operations manual.

NOTE: Facilities should develop a fire and rescue plan in conjunction with the local fire department.

(6) Vector Control: The on-site population of disease vectors must be minimized to protect public health.

(7) Dust Control: The operator must control dust generated by the facility.

(8) Storage at facilities other than tire processing facilities:

(a) Raw materials, wastes, and secondary materials, including processed residuals, must be stored on the site such that they remain suitable for the intended use.

(b) Materials with a carbon to nitrogen ratio (C:N) of less than 20:1 or that may contain constituents that may leach into groundwater may not be stored on in situ soils.

(c) Wastes and secondary materials may not be stored at the site for more than 2 years.

(9) Storage at tire processing facilities:

(a) Tires, incoming and processed, that will be stored outside must be positioned into distinct piles. The storage areas must be established and maintained as approved in the license for the 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.

(b) Tires, both incoming and processed, must be stored on the site such that they remain suitable for the intended use.

(c) Whole and processed tires may not be stored at the site for more than 2 years. Provisions must be made for the flow through of tires, and clean up and maintenance of the storage areas.

(d) Compaction: Compaction must not occur on piles of chipped or processed tires unless the facility implements the following temperature monitoring program to detect heating of the piles. The records of temperature readings must be kept on site and be available for inspection by the Department upon request. The high temperature zone(s) of each pile must be identified and monitored by sufficient numbers of fixed temperature monitoring probes installed in the pile to ensure that all zones of high temperature are detected.

(i) Routine temperature readings must be taken weekly and recorded.

(ii) If a weekly reading exceeds 100 degrees F. in a pile, readings shall be taken daily and recorded until the temperature readings return to 100 degrees F. or less for two consecutive readings.

(iii) if any temperature reading exceeds 150 degrees F., the pile will be turned over and aerated to reduce the highest core temperature to 100 degrees F. or less.

(10) Manifests: The operator shall keep copies of non-hazardous waste manifests for tires delivered to the facility. The manifests shall be available for inspection by the Department upon request.

(11) Litter Control: The operator must provide for routine maintenance and general cleanliness of the entire facility site, including control of windblown litter.

(12) Leachate: Facilities must contain, collect and treat leachate and runoff mixed with leachate.

(13) The facility must control sedimentation and erosion during construction and operation of the facility.

**C. Access to Facilities**

(1) The operator must maintain suitable barriers or fencing and gates to prevent unauthorized persons access to the site. The facility gate may be unlocked or open only when an authorized person is on duty. The operator must prominently post limitations and conditions of access at each entrance to the facility, including, if applicable, the hours of operation.

(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).

1. **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.

(2) Transition

(a) Existing processing facilities subject to the requirements of this subsection must submit a waste characterization plan for Department review and approval within 60 days of the effective date of this rule. Waste characterization data and results must be submitted beginning with the annual report due February 28, 2012.

(b) By September 1, 2011, existing processing facilities subject to the requirements of this subsection must submit an interim report which includes the data and information required by Section 4.I(1)(a)(b) and (c) gathered to date, and a narrative discussing progress in implementation of the characterization program required by Section 3E(1) and ongoing recycling and reuse efforts by the facility.

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 will develop and provide guidance on visual assessment methods to regulated facilities. The September 1, 2011 interim report required by Section 3.E(2) above, will not be used by the Department as the basis for a determination of compliance with the recycling and reuse standards of Section 4.I(d) and (e).

**F. Odor Control**

1. For facilities other than those that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage:
   1. The facility must be operated to prevent nuisance odors at occupied buildings.
   2. Facility personnel must immediately contact the Department 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, in writing, causes of odor generation and completed or planned follow-up action to minimize, control, and treat the odors from the facility.
2. For facilities that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage:
   1. Standards. The facility may not create nuisance odor, as defined in this subsection, at or beyond the property boundary. The Department may determine that an odor attributable to the facility constitutes a nuisance if present at such frequency, intensity, duration, and offensiveness to unreasonably interfere with the enjoyment of property or the environment.The Department may also reasonably determine that an odor event as defined by a single occurrence of odor warrants further evaluation in accordance with paragraph b(i). Additionally, the Department may determine that further evaluation of an odor event is warranted in accordance with paragraph b(i) based upon multiple odor complaints verifiable by a combination of the following: meteorological conditions such as wind direction at the time of complaint, knowledge of waste storage and placement practices at the time of complaint, previous facility inspections, and other site-specific information.

NOTE: The Department’s standards with respect to nuisance odor as set forth in this rule are not intended to define the criteria for a civil action for private nuisance as defined by statute or common law.

1. The following standards apply to a facility upon the detection of an odor based on the modified 5-point odor intensity referencing scale, as determined by Department staff trained in odor evaluation, or other trained persons approved by the Department:
   1. Odor shall constitute a nuisance if the Department determines the presence of an odor at an intensity of 4 or greater for any period of time; or
   2. Odor may constitute a nuisance based upon the Department’s review of an odor event consisting of the following:
      1. An intensity greater than or equal to 3 for a duration of 60 minutes or more on at least 3 days in any 30-day period. At least 3 odor assessments must be made within the 60-minute period. An odor assessment means a single evaluation of odor; or
      2. An intensity greater than 2 but less than 3 for a duration of 90 minutes or more on at least 4 days in any 30-day period. At least 4 odor assessments must be made within the 90-minute period.

NOTE: Preparation of the modified 5-point odor intensity referencing scale is described in Appendix A.

* + 1. Alternative Odor Measurement Technology. The Department may allow the use of an alternative odor measurement technology based upon a successful demonstration that the proposed alternative will provide equal or superior performance to the modified n-butanol odor intensity referencing scale. If previously approved in an odor management plan, the Department may also allow a facility to demonstrate compliance with the intent of paragraph a(i)(b) based upon the measurements of a site-specific odorant of concern.
    2. Allowances. The Department may allow temporary exceedances of the standards of paragraph a(i)(b) during short-term shutdown and malfunction events of the odor control systems and, with prior authorization, during short-term construction activities provided that all of the following conditions are met:

1. Reasonable methods are used to control, reduce or eliminate odor;
2. The odor management plan is being implemented;
3. Procedures are established to notify the Department and the affected community; and
4. Shutdown and malfunction events are corrected as soon as practicable.
   1. Odor Response Procedures. Odor response procedures must include the elements of this paragraph.
5. Odor Event Evaluation. The owner/operator of a facility identified by the Department as potentially responsible for a nuisance odor must investigate the odor event and report the results of the investigation to the Department. The investigation must include an evaluation of:
6. Facility operations at the time of the exceedance including waste handling and management activities;
7. Meteorological conditions such as wind direction, temperature, and humidity at the time of the exceedance;
8. Odor monitoring data;
9. Potential response actions and/or a summary of response actions performed; and
10. Other pertinent site-specific information.
11. Review of Odor Event(s). The Department shall review the information related to the odor event(s) and may determine that the facility is creating nuisance odor and that an odor management plan, including a specific proposal which addresses the odor event, must be submitted for Department review and approval and implemented in accordance with Section 3(G)(2) of this Chapter.
12. Transition until March 1, 2015. Facilities that process wastewater treatment sludge from publicly owned treatment works and facilities that process septage are required to operate in conformance with the standards and requirements of Section 4(F)(2) above by March 1, 2015. The standards and requirements of Section 4(F)(1)(a) and (b), in effect prior to the adoption of Section 4(F)(2), remain in effect for these facilities until March 1, 2015.

**G. 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 ***and characterization*** data results required by these rules or license conditions;

(3) An operations manual meeting the requirements of this section;

(4) Records of odor monitoring data, exceedances, response actions and complaints, if any;

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

(6) Stabilization facility operations log. An operations log must be kept at a processing facility that reduces the pathogen content, reduces vector attraction properties, reduces putrescibility, 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.

**H. 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. 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 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) 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 state or province of origin and by generator type; and

(ii) data and results of the characterization of all wastes accepted at the facility as required in subsection 4(E) of this rule;

NOTE: The waste origin and generator information required in subsections 409.4.I(1)(a)i. and in 409.4.I(2)(a) is not intended to identify specific customers. Information must include state or province of origin, and generator type, such as: “residential contractor”, “municipal transfer station”, or “industrial demolition project”.

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

(ii) 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 M.R.S. §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); and

(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 complaints received by the facility during the previous year;

1. A summary of odor monitoring data, exceedances, response actions and complaints, if any;

(d) 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,

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

**J. 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, section 4. Facilities licensed under this section are subject to the operating standards in section 4, but are exempt from the requirements of Chapter 400, section 9. No variances to the requirements of this section may be granted.

**B. Standards and Operating Requirements.** The standards and operating requirements of this subsection apply to all permit-by-rule facilities licensed under this section. Paragraphs (2) – (6) are operating requirements for existing virgin oil contaminated soil processing facilities licensed as of November 2, 1998 under former Chapter 409, section 2.B (effective May 24, 1989).

(1) A temporary facility must obtain written permission from the property owner and the owners of all occupied buildings within 1000 feet of the waste handling area.

(2) The facility may only process virgin oil-contaminated soil material that is accompanied by a shipping manifest provided by the Department as part of a Department supervised clean-up project.

(3) The facility owner or operator must maintain records identifying the origins of the material, quantities accepted, and the dates of acceptance. The owner or operator must submit a summary of these records to the Department by February 28th of each year of operation for the previous calendar year, and upon Department request.

(4) If oil-contaminated soil material is stored for more than 24 hours at the batching plant, the material must be stored either:

(a) In a covered building, in a covered leak proof container or under an impermeable synthetic cover on a concrete pad provided the material is not stored for more than 18 months; or

(b) Uncovered, provided the uncovered storage is limited to 100 tons of waste, the waste is bulked with sufficient aggregate so that liquids will not leach from the pile, and storage of oil-contaminated soil material does not exceed 9 months in any calendar year. If contaminated with gasoline, the waste must be stored on an impermeable base.

(5) The facility must be operated so that it does not contaminate water, land or air from the handling, storage or processing of oil-contaminated soil.

(6) Any oil-contaminated soil material received at the asphalt batching plant that is not processed must be disposed of at a facility licensed and approved by the Department to accept such wastes.

NOTE: Asphalt batching plants processing oil-contaminated soil material may be required to conduct air emission testing pursuant to 38 M.R.S.A. section 608(A). The Bureau of Air Quality Control should be contacted prior to such processing.

**C. Notification Requirements.** At least 18 working days prior to the first shipment of any virgin oil contaminated material for processing, the applicant shall submit to the Department a permit-by-rule notification on a form developed by the Department. This notification must include:

(1) The applicant's name, address, telephone number and contact person.

(2) The appropriate application fee.

(3) Description: A brief description of the proposed project including a description of the waste to be processed.

(4) Title, Right, or Interest: A demonstration of sufficient title, right or interest to the property proposed for development, as specified in Chapter 2, section 7.

(5) 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, and the property boundary. The map must indicate all residences within 1000 feet of the waste handling area.

(6) Public Notice. A copy of the public notice and other information to demonstrate that the applicant is fulfilling the requirements of Chapter 400, section 3.

(7) Certification: A statement signed by the facility landowner and the person responsible for the facility stating that all applicable standards and requirements of this section have been met.

**6. Permit by Rule for the Manufacture of Flowable Fill Using Multi-Fuel Boiler Ash, Blast Furnace Slag or Coal Ash**

**A. Applicability.** The permit-by-rule licensing provisions of this section shall apply to the manufacture of flowable fill using multi-fuel boiler ash, blast furnace slag or coal ash at existing concrete batching plants or existing cement kilns that meet all of the standards of this section. 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 manufacture of flowable fill using multi-fuel boiler ash, blast furnace slag or coal ash at existing concrete batching plants or existing cement kilns in strict conformity with these permit-by-rule provisions will meet the standards of Chapter 400, section 4. Facilities licensed under this section are subject to the operating standards in section 4, but are exempt from the requirements of Chapter 400, section 9. No variances to the requirements of this section may be granted.

**B. Standards**

(1) The facility owner or operator must maintain records identifying the origins of the multi-fuel ash, blast furnace slag or coal ash, quantities accepted, the dates of acceptance, dates of processing, and the dates and locations of final disposition. The owner or operator must submit to the Department by January 31st for the previous calendar year, a summary of the total ash and blast furnace slag received, total ash and blast furnace slag stored on site as of December 31, and total amount of flowable fill distributed.

(2) Concrete mixing facilities and cement kilns which use multi-fuel blast furnace slag or coal ash as an additive in the manufacturing of flowable fill must store and handle the multi-fuel or coal ash in enclosed buildings or the equivalent (e.g., covered conveyors and transfer points, leak proof silos or containers) to prevent fugitive dust emissions and to prevent direct exposure of the ash to the weather during storage and handling.

(3) The facility must be operated so that it does not contaminate water, land or air from the handling, storage or processing of multi-fuel boiler or coal ash.

(4) Any multi-fuel boiler blast furnace slag or coal ash received at the concrete batching plant or cement kiln that is not processed must be disposed of at a facility licensed and approved by the Department to accept such wastes.

(5) The facility owner or operator must maintain records identifying the origins of the material, quantities accepted, and the dates of acceptance. The owner or operator must submit a summary of these records to the Department by February 28th of each year of operation for the previous calendar year, and upon Department request.

**C. Notification Requirements.** At least 18 working days prior to accepting the first shipment of any multi-fuel ash, blast furnace slag or coal ash for use in manufacturing flowable fill, the owner or operator of the concrete batching plant or cement kiln shall submit to the Department a permit-by-rule notification on a form developed by the Department. This notification must include:

(1) Contact: the applicant's name, address, telephone number and contact person.

(2) Fee: the appropriate application fee.

(3) Description: A brief description of the proposed project including a description of the waste to be processed.

(4) Title, Right, or Interest: A demonstration of sufficient title, right or interest to property proposed for development, as specified in 06-096 CMR Chapter 2, section 7.

(5) 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, and the property boundary. The map must indicate all residences within 500 feet of the waste handling area.

(6) Analytical data demonstrating that the ash or blast furnace slag is non-hazardous.

(7) Public Notice. A copy of the public notice and other information to demonstrate that the applicant is fulfilling the requirements of Chapter 400, section 3.

(8) Certification: A statement signed by the facility landowner and the person responsible for the facility stating that all standards and requirements of this section have been met.

**7. Permit by Rule for Processing Wood Wastes**

**A. Applicability.** The permit-by-rule licensing provisions of this section apply to facilities that process wood waste for mulch, compost or fuel and that meet all of the standards of this section. 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 wood waste for mulch or fuel in strict conformity with these permit-by-rule provisions will meet the standards of Chapter 400, section 4. Facilities licensed under this section are exempt from the requirements of Chapter 400, section 9. No variances to the requirements of this section may be granted.

NOTE: Chapter 400, section 1 defines "wood wastes" as "brush, stumps, lumber, bark, wood chips, shavings, slabs, edgings, slash sawdust and wood from production rejects, that are not mixed with other solid or liquid waste".

**B. Standards and Operating Requirements.** The standards and operating requirements of this subsection apply to all permit-by-rule facilities licensed under this section. Paragraphs (1) and (9) – (15) are operating requirements for existing wood waste processing facilities licensed as of November 2, 1998 under former Chapter 404, section 2.D (effective May 24, 1989).

(1) The processing facility may only handle wood waste. It may not accept for processing painted wood, chemically treated wood, chipboard, plastic, wood with fasteners, nails, paint or coatings, or wood that is otherwise contaminated.

(2) The total waste handling area may not exceed three (3) acres and on-site storage areas may not exceed one (1) acre. Individual storage piles may not exceed 10,000 square feet.

(3) The facility site may not lie within a 100-year flood plain.

(4) There must be a minimum of a 100-foot setback from the waste handling area to property boundaries.

(5) There must be a minimum of a 500 foot setback from the waste handling area to all water supply springs.

(6) There must be a minimum of a 500 foot setback from the waste handling area to all water supply wells and all residences not owned by the facility operator or owner.

(7) The facility site may not be located within 100 feet of, 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.

(8) Soils: The applicant may only process and store wood wastes on:

(a) Soils that a Maine certified soil scientist has determined are moderately well drained to well drained, as classified by the Natural Resources Conservation Service, and that are at least 24 inches above the seasonal high water table, bedrock, and sand or gravel lenses; or

(b) A pad constructed with the top at least 2 feet above the seasonal high water mark and is either composed of:

(i) 2 feet of glacial till (having between 15 and 35% fines) covered with a 6 inch drainage layer of gravel; or

(ii) soil covered with asphalt or concrete; or

(c) A surface determined by a Maine certified soil scientist, soil engineer or other qualified individual as being suitable for the proposed activity, taking into account the other aspects of the facility design; or

(d) On a land area under a permanent, roofed structure.

(9) Drainage: Surface water drainage must be diverted away from processing and storage areas.

(10) The facility must be operated so that it does not contaminate water, land or air from the handling, storage or processing of wood wastes.

(11) Inspection and access control: The operator must control unauthorized access to the site and visually inspect incoming materials so that only wood wastes permitted under section 7(B)(1) are deposited at the facility.

(12) Distribution: Processed wood wastes must be distributed for use or disposal within two years of receipt at the facility.

(13) Fire control: The operator must develop and implement a plan to prevent spontaneous combustion in wood waste and wood chip piles.

(14) Annual Report: By February 28th of each year, the operator must submit an annual report covering the previous calendar year. The annual report must contain;

(a) The estimated weight or volume of wood wastes received at the facility;

(b) The estimated volume or weight of wood wastes distributed from the facility;

(c) The estimated volume or weight of wood wastes stored on site as of December 31st; and

(d) A description of any problems in operations encountered during the year, and steps taken to correct those problems.

(15) Closure: 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 wood chips from the facility; and broom clean the facility structures and equipment.

**C. Notification Requirements.** At least 18 working days prior to acceptance of wood waste at the facility for processing, the applicant shall submit to the Department a permit-by-rule notification on a form developed by the Department. This notification must include:

(1) The applicant's name, address, telephone number and contact person.

(2) The appropriate application fee.

(3) Description: A brief description of the proposed project including a description of the waste to be processed.

(4) Title, Right, or Interest: A demonstration of sufficient title, right or interest to property proposed for development, as specified in Chapter 2, section 7.

(5) 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, and the property boundary.

(6) Flood Plain Map. When the site is within 1/4 mile of a 100 year flood plain, the application must include the most recent Federal Emergency Management Agency flood insurance rate map of the area with the location of the facility clearly marked.

(7) Tax Map: A copy of the local tax map marked with the facility location and the names and addresses of abutters marked on it. The map must indicate all residences within 500 feet of the waste handling area.

(8) Soil and Pad Design: One of the following:

(a) A certification from a Maine certified soil scientist that the soils where wood wastes will be processed and stored are moderately well drained to well drained, as classified by the Natural Resources Conservation Service, and that are at least 24 inches above the seasonal high water table, bedrock, and sand or gravel lenses.

(b) A description of the pad or other surface that the wood waste will be processed and stored on, and which of the standards in section 7.B(8)(b) that surface meets;

(c) A certification from a Maine certified soil scientist, soil engineer or other qualified individual that the surface is suitable for the proposed activity, taking into account the other aspects of the facility design; or

(d) A certification that all processing and storage will be conducted under a permanent, roofed structure.

(9) A fire control plan to prevent spontaneous combustion in wood waste and wood chip piles.

(10) Public Notice. A copy of the public notice and other information to demonstrate that the applicant is fulfilling the requirements of Chapter 400, section 3.

(11) Certification: A statement signed by the facility landowner and the person responsible for the facility stating that the standards and requirements of this section will be met throughout operation and closure of the facility.

**APPENDIX A**

**PREPARATION OF ODOR INTENSITY REFERENCING SCALE1**

This document describes the preparation of a 5-point odor intensity referencing scale in general conformance with the static-scale method outlined in ASTM Standard E544 – 10 “Standard Practices for Referencing Suprathreshold Odor Intensity,” ASTM International, West Conshohocken, PA, 2010, DOI: 10.1520/E0544-10, [www.astm.org](http://www.astm.org/Msgs/www.astm.org). This document is not intended to address user health and safety practices associated with the preparation of the odor intensity referencing scale. The appropriate health and safety resources should be consulted, and recommended guidelines followed, during scale preparation.

The scale is prepared with the reference odorant n-butanol (n-BuOH) in accordance with the concentrations specified in Table 1. Supporting rationale for the selection of n-butanol as the reference odorant is summarized in Appendix X1 of ASTM E544.

Table 1: 5-Point Odor Intensity Referencing Scale

|  |  |
| --- | --- |
| **Level** | **n-butanol Concentration in Water (ppm)** |
| 1 2 3 4 5 | 150 300 600 1200 2400 |

The scale ranges from 1 to 5. Level 1 consists of 150 parts per million (ppm) of n-butanol in distilled water. Subsequent levels (Levels 2 through 5) increase by a factor of 2 based on a volume to volume basis.

Level 1 - Jar 1: 150 ppm n-BuOH

Using a 1 milliliter (mL) pipet, measure 150 microliters (µL) of n-BuOH and add to 1,000 milliliter (mL) volumetric flask. Add distilled water to the 1,000 mL mark. Replace top and shake to mix. Use approximately 200 mL of the solution for Jar 1.

Level 2 - Jar 2: 300 ppm n-BuOH

Using a 1 mL pipet, measure 300 µL of n-BuOH and add to 1,000 mL volumetric flask. Add distilled water to the 1,000 mL mark. Replace top and shake to mix. Use approximately 200 mL of the solution for Jar 2.

Level 3 - Jar 3: 600 ppm n-BuOH

Using a 1 mL pipet, measure 600 µL of n-BuOH and add to 1,000 mL volumetric flask. Add distilled water to the 1,000 mL mark. Replace top and shake to mix. Use approximately 200 mL of the solution for Jar 3.

Level 4 - Jar 4: 1200 ppm n-BuOH

Using a 1 mL pipet measure 1 mL of n-BuOH and add to 1,000 mL volumetric flask; next using a 1 mL pipet measure 200 µL of n-BuOH and add to the 1,000 mL volumetric flask for a total of 1200 µL of n-BuOH. Add distilled water to the 1,000 mL mark. Replace top and shake to mix. Use approximately 200 mL of the solution for Jar 4.

Level 5 - Jar 5: 2400 ppm n-BuOH

Using a 2 mL pipet measure 2 mL of n-BuOH and add to 1,000 mL volumetric flask; next using a 1 mL pipet measure 400 µL of n-BuOH and add to the 1,000 mL volumetric flask for a total of 2400 µL of n-BuOH. Add distilled water to the 1,000 mL mark. Replace top and shake to mix. Use approximately 200 mL of the solution for Jar 5.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1Adapted from Tech Environmental, Odor Intensity Referencing Scale, Preparation of Samples for Static-Scale Method.

STATUTORY AUTHORITY: 38 MRSA sections 341-D(1-B) and 1304(1 & 1-B)

EFFECTIVE DATE:

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AMENDED:

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