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### **Memorandum**

**TO:** Heads of Fire Department

**FROM:** Stephen D. Coan  
State Fire Marshal

**DATE:** March 1, 2012

**SUBJECT:** Adoption of 527 CMR 33.00

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Included is a copy of 527 CMR 33.00, which was recently adopted by the Board of Fire Prevention Regulations. 527 CMR 33.00 is effective as of February 3, 2012 and establishes criteria and permitting requirements for facilities that engage in the processing of hazardous materials, as defined.

The proposed regulation would expand required permits to include additional hazardous materials and related material processing (as defined) that may not have been previously subject to a permit or related government oversight. The permit will be issued by the local head of the fire department, who will also carry out an enhanced oversight role in implementing the regulatory requirements. As a condition to such permitting, the regulation requires disclosure and an evaluation regarding the details about the hazardous material process activity-taking place at the facility. Once disclosed, certain requirements are established based upon category classification. Maintaining the required permit is conditioned upon continued compliance with the regulatory requirements, which focus on preventative, protective, and safety control measures in conformance with recognized and generally accepted practices, including conformance with certain Federal and Mass. DEP regulations.

If you have any further questions please contact the Code Compliance and Enforcement Unit at 978-567-3375 or in Western MA at 413-587-3181.

527 CMR: BOARD OF FIRE PREVENTION REGULATIONS

527 CMR 33.00: HAZARDOUS MATERIAL PROCESS OR PROCESSING

Section

- 33.01: Purpose and Scope
- 33.02: Definitions
- 33.03: Categories of Hazardous Processes or Processing
- 33.04: Permit Requirements
- 33.05: Compliance Requirements Based Upon Category Classification
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33.01: Purpose and Scope

- (1) The purpose of 527 CMR 33.00 is to:
  - (a) Protect the public and emergency response personnel from fire or explosion hazards arising out of the processing of flammable, combustible, toxic, or corrosive substances.
  - (b) Enhance the awareness of local emergency response personnel about the actual or potential hazards and risks associated with hazardous material processing that occurs within their community;
  - (c) Establish permitting requirements for facilities that engage in the processing of hazardous material;
- (2) The provisions of 527 CMR 33.00 shall apply to both new and existing facilities that process hazardous materials.
- (3) The provisions of 527 CMR 33.00 shall not apply to the following:
  - (a) Motor vehicle service stations regulated in accordance with 527 CMR 5.00: *Operation and Maintenance of Buildings or Other Structures Used as Garages, Service Stations and the Related Storage, Keeping and Use of Gasoline or Other Motor Fuel*;
  - (b) Construction and maintenance projects regulated in accordance with 527 CMR 14.00: *Flammable and Combustible Liquids, Flammable Solids or Flammable Gases*;
  - (c) Products that are designed pre-mixed in accordance with the manufacturer's instructions or products that are labeled and packaged for sale to the consumer at retail;
  - (d) The activities of healthcare professional offices or facilities under the supervision of a licensed medical doctor, dentist or veterinarian;
  - (e) Retail facilities such as pharmacies, hardware stores, department stores or restaurants regulated by and in accordance with the provisions of 527 CMR 10.00: *Fire Prevention, General Provisions*, 527 CMR 11.00: *Commercial Cooking Operations*, or 527 CMR 14.00: *Flammable and Combustible Liquids, Flammable Solids or Flammable Gases*;
  - (f) Refrigeration systems which employ a refrigerant other than ammonia or LPG;
  - (g) The processing or treatment of potable water and sanitary waste water;
  - (h) Wastewater treatment operations that operated by Grades II, IM, 2I and 2M operators as classified according to 257 CMR 2.00: *Certification of Operators of Wastewater Treatment Facilities*;
  - (i) The consumption of fuels solely for the purpose of the operation of equipment, such as generators, torches, and consumptive use boilers regulated in accordance with the provisions of 527 CMR 4.00: *Oil Burning Equipment*, 527 CMR 6.00: *Liquefied Petroleum Gas Containers and Systems* or 527 CMR 39.00: *Welding and Cutting Processes*;
  - (j) The storage of hazardous materials in atmospheric vessels if they are maintained below the stored material's normal boiling point without benefit of chilling, refrigeration or heat;
  - (k) The processing of hazardous materials and their byproducts which has a hazard ratings of two or less, according to criteria of NFPA 704;
  - (l) Hazardous waste activities regulated and in compliance with the provisions of 310 CMR 30.000: *Hazardous Waste*;
  - (m) Biological and medical activities regulated by the Department of Public Health;
  - (n) Handling and use of liquid nitrogen cooling systems at atmospheric pressure;
  - (o) The handling and repackaging of products regulated in accordance with the provisions of 527 CMR 14.00: *Flammable and Combustible Liquids, Flammable Solids or Flammable Gases*;

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- (p) Use of inert gas;
- (q) Swimming pools regulated by 105 CMR 435.000: *Minimum Standards for Swimming Pools (State Sanitary Code: Chapter V)* ;
- (r) Air pollution control devices that are a component of a process regulated by 310 CMR 7.00: *Air Pollution Control*.
- (s) The production and handling of explosives and fireworks regulated in accordance with 527 CMR 2.00: *The Manufacturing, Storage, Transportation and Use of Fireworks*, 527 CMR 13.00: *Explosives*, or 527 CMR 16.00: *Model Rockets*.
- (t) The equipment, process, handling, storage or use of compounds, liquids, pesticides, fertilizers, or soil treatments regulated in accordance with the provisions of 527 CMR 35.00: *Crop Ripening or Color Processes*, 527 CMR 37.00: *Pesticide Storage* or 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

(4) 527 CMR 33.00 shall not supersede any federal, state, or other applicable regulations referenced in 527 CMR 33.00. In the event of a conflict between the provisions of 527 CMR 33.00 and any other applicable regulation referenced in 527 CMR 33.00, the regulation which provides the higher standard for the promotion of public safety shall prevail.

33.02: Definitions

For the purposes of 527 CMR 33.00, the following terms and regulatory references shall have the meanings respectively assigned to them:

29 CFR 1910.119: Occupational Safety and Health Administration (OSHA) *Process Safety Management of Highly Hazardous Materials* regulation. Regulated hazardous materials which are listed in 29 CFR 1910.119: *Appendix A* and described in 29 CFR 1910.119(a)(1)(ii).

29 CFR 1910.1200: Occupational Safety and Health Administration (OSHA) *Hazard Communication* regulation.

29 CFR 1910.1450: Occupational Safety and Health Administration (OSHA) *Occupational Exposure to Hazardous Chemicals in Laboratories* regulation.

40 CFR Part 68: EPA (United States Environmental Protection Agency *Chemical Accident Prevention Provisions* regulation. Regulated hazardous materials included in 40 CFR 68.130 (Code of Federal regulations) *List of Substances*" with threshold quantities of regulated substances listed in the tables in 40 CFR 68.130.

310 CMR 30.000: Massachusetts Department of Environmental Protection *Hazardous Waste* regulation.

780 CMR: The Massachusetts State Building Code

Boiling Point: The temperature at which the vapor pressure of a liquid equals the atmospheric pressure of 14.7 pounds per square inch (psi) (101 kPa) gage or 760 mm of mercury. For the purposes of this classification if an accurate boiling point is unavailable for the material in question or if a mixture does not have a constant boiling point, the 20% evaporated point of a distillation performed in accordance with ASTM D 86 shall be used as the boiling point of the liquid.

Building or Structure, a building or structure as defined by M.G.L c 148, § 1.

Capacity: The nominal capacity of the vessel as specified by the manufacturer.

Category 3 Hazard Evaluation: A written evaluation performed or procedure conducted to identify hazards, including adjacent vessels that contain hazardous materials, and determine the required preventive, protective, and safety control measures in conformance with recognized and generally accepted good engineering and safe work practices associated with a particular process or condition and the facility wherein such process or condition is taking place.

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Category 4 Limited Process Safety Program: An evaluation performed, policy or required procedure to ensure compliance with the following:

- (a) Process information including, but not limited to: MSDS for the chemicals and products being processed, process chemistry, piping and instrumentation diagram, safety relief design, process control safety alarms and interlocks; and
- (b) Facility suitability including, but not limited to: building code compliance, electrical hazard (Check article 500) classification, ventilation design, fire alarm and fire protection, spill containment and control; and
- (c) A process hazard safety analysis including but not limited to: effects in the event of failure, suitable administrative and engineering controls to minimize failure and to control unanticipated releases, and emergency responses to safeguard life and property; and
- (d) Written procedures, including routine operating and maintenance, as well as precautionary, shut-down and emergency response measures; and
- (e) A written training program for operating and maintenance personnel and outside contractors whose work or activity may affect process safety; and
- (f) A written records management protocol which tracks any changes, including but not limited to changes to chemicals, equipment, operating procedures training program. Such records shall include the date of such change and the name of the manager responsible for such change; and
- (g) An internal review at a maximum every three years.

Combustible Liquid: A liquid having a closed cup flash point at or above 100°F (38°C). Combustible liquids shall be classified as follows:

Class II: Liquids having a closed cup flash point at or above 100°F (38°C) and below 140°F (60°C).

Class IIIA: Liquids having a closed cup flash point at or above 140°F (60°C) and below 200°F (93°C).

Class IIIB: Liquids having a closed cup flash point at or above 200°F (93°C).

The categories of combustible liquids do not include compressed gases or cryogenic fluids.

Competent Professional: A person who based upon education, training, skill, experience or professional licensure or a combination thereof, has a specialized knowledge beyond that of an average person about risk assessment, process hazard analysis, and/or process safety management principles for the process or processes being evaluated.

Compressed Gas: A material, or mixture of materials, which:

- (a) Is a gas at 68°F (20°C) or less at 14.7 pounds per square inch atmosphere (psia) (101 kPa) of pressure; and
- (b) Has a boiling point of 68°F (20°C) or less at 14.7 psia (101 kPa), which is either liquefied, nonliquefied or in solution, except those gases which have no other health-or physical-hazard properties are not considered to be compressed until the pressure in the packaging exceeds 41 psia (282 kPa) at 68°F (20°C).

The states of a compressed gas are categorized as follows:

1. Nonliquefied compressed gases are gases, other than those in solution, which are in a packaging under the charged pressure and are entirely gaseous at a temperature of 68°F (20°C).
2. Liquefied compressed gases are gases that, in a packaging under the charged pressure, are partially liquid at a temperature of 68°F (20°C).
3. Compressed gases in solution are nonliquefied gases that are dissolved in a solvent.
4. Compressed gas mixtures consist of a mixture of two or more compressed gases contained in a packaging, the hazard properties of which are represented by the properties of the mixture as a whole.

Control Area: Spaces within a building that are enclosed and bounded by exterior walls, fire walls, fire barriers and roofs, or a combination thereof, where quantities of hazardous materials not exceeding the maximum allowable quantities per control area are stored, dispensed, used or handled. Reference the actual tables in 780 CMR 307.7(1), 307.7(2) and 425.9.2.1.1

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Corrosive: A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the point of contact. A chemical shall be considered corrosive if, when tested on the intact skin of albino rabbits by the method described in DOT 49 CFR, Part 173.137, such a chemical destroys or changes irreversibly the structure of the tissue at the point of contact following an exposure period of four hours. 527 CMR 33.02: Corrosive does not refer to action on inanimate surfaces.

Cryogenic Fluid: A liquid having a boiling point lower than -150°F (-101°C) at 14.7 pounds per square inch atmosphere (psia) (an absolute pressure of 101 kPa).

Emergency Coordinator: Either the owner/operator or a person appointed by the Owner/Operator of the facility who:

- (a) Will interface with the fire department or other emergency responders at the time of an emergency or incident involving a hazardous material at the facility; and
- (b) Has knowledge of the operations and protective systems at the facility; and
- (c) Has knowledge of the location, characteristics, and precautionary measures of the hazardous materials present; and
- (d) Has knowledge of the location of pertinent documentation that may be needed in time of an emergency including a copy of the layout of the facility; and
- (e) Has access to all parts of the facility or can arrange access to necessary areas of the facility; and
- (f) Has the authority to hire emergency contractors, consultants, and other resources that may be required to carry out emergency response measures necessary to help protect the public.

Facility: a structure, building or complex of buildings where Hazardous Materials are processed

Flammable Gas: A material that is a gas at 68°F (20°C) or less at 14.7 pounds per square inch atmosphere (psia) (101 kPa) of pressure [a material that has a boiling point of 68°F (20°C) or less at 14.7 psia (101 kPa)] which:

- (a) Is ignitable at 14.7 psia (101 kPa) when in a mixture of 13% or less by volume with air; or
- (b) Has a flammable range at 14.7 psia (101 kPa) with air of at least 12%, regardless of the lower limit.

The limits specified shall be determined at 14.7 psi (101 kPa) of pressure and a temperature of 68°F (20°C) in accordance with ASTM E 681.

Flammable Liquefied Gas: A liquefied compressed gas which, under a charged pressure, is partially liquid at a temperature of 68°F (20°C) and which is flammable.

Flammable Liquid: A liquid having a closed cup flash point below 100°F (38°C). Flammable liquids are further categorized into a group known as Class I liquids. The Class I category is subdivided as follows:

Class IA: Liquids having a flash point below 73°F (23°C) and a boiling point below 100°F (38°C).

Class IB: Liquids having a flash point below 73°F (23°C) and a boiling point at or above 100°F (38°C).

Class IC: Liquids having a flash point at or above 73°F (23°C) and below 100°F (38°C).

The category of flammable liquids does not include compressed gases or cryogenic fluids.

Flammable Material: A material capable of being readily ignited from common sources of heat or at a temperature of 600°F (316°C) or less.

Flammable Solid: A solid, other than a blasting agent or explosive, that is capable of causing fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which has an ignition temperature below 212°F (100°C) or which burns so vigorously and persistently when ignited as to create a serious hazard. A chemical shall be considered a flammable solid as determined in accordance with the test method of CPSC 16 CFR; Part 1500.44, if it ignites and burns with a self-sustained flame at a rate greater than 0.1 inch (2.5 mm) per second along its major axis.

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Flashpoint: The minimum temperature in degrees Fahrenheit at which a liquid will give off sufficient vapors to form an ignitable mixture with air near the surface or in the container, but will not sustain combustion. The flash point of a liquid shall be determined by appropriate test procedure and apparatus as specified in ASTM D 56, ASTM D 93 or ASTM D 3278.

H Occupancy: High-hazard Group H occupancy per 780 CMR 307.0. H Occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those found in Tables 307.7(1), 307.7(2), and 425.9.2.1.1 of 780 CMR (*see* also definition of "Control Area").

Handling: The deliberate transport by any means to a point of storage, use, or processing.

Hazardous Material: A chemical or substance that is a physical hazard or a health hazard as defined and classified in 527 CMR 33.00.

Health Hazard: A classification of a chemical for which there is statistically significant evidence that acute or chronic health effects are capable of occurring in exposed persons. The term Health Hazard includes chemicals that are toxic or highly toxic, and corrosive.

Head of the Fire Department: The Head of the local Fire Department, as defined by M.G.L. c. 148, § 1 or a designee of the Head of the Fire Department.

Highly Toxic: A material which produces a lethal dose or lethal concentration that falls within any of the following categories:

- (a) A chemical that has a median lethal dose (LD50) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.
- (b) A chemical that has a median lethal dose (LD50) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.
- (c) A chemical that has a median lethal concentration (LC50) in air of 200 parts per million by volume or less of gas or vapor, or two milligrams per liter or less of mist, fume or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Incident: an unplanned event arising from a hazardous material process resulting in a fire, explosion, reportable release, or injury.

Incident Commander: Incident Commander (IC): The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Mixture: A combination of materials in a vessel. The mixture shall be considered a different material from those before being added to the vessel, regardless of whether a reaction or change of state occurred in the vessel, and regardless of whether the mixture is homogeneous or heterogeneous. Material hazards of the mixture shall be classified based on the hazards of the mixture as a whole, in accordance with nationally recognized reference standards, by an approved qualified organization, individual, or Material Safety Data Sheets (MSDS), or by other approved methods.

Marshal: The State Fire Marshal or designee.

NFPA 704: National Fire Prevention Association, Standard 704 (2007 Edition): *System for the Identification of the Hazards of Materials for Emergency Response*.

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Organic Peroxide: An organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms have been replaced by an organic radical. Organic peroxides can pose an explosion hazard (detonation or deflagration) or they can be shock sensitive. They can also decompose into various unstable compounds over an extended period of time. For the purposes of 527 CMR 33.00 Organic Peroxides are defined as follows:

Class I: Those formulations that are capable of deflagration but not detonation.

Class II: Those formulations that burn very rapidly and that pose a moderate reactivity hazard.

Class III: Those formulations that burn rapidly and that pose a moderate reactivity hazard.

Class IV: Those formulations that burn in the same manner as ordinary combustibles and that pose a minimal reactivity hazard.

Class V: Those formulations that burn with less intensity than ordinary combustibles or do not sustain combustion and that pose no reactivity hazard.

Unclassified detonable: Organic peroxides that are capable of detonation. These peroxides pose an extremely high explosion hazard through rapid explosive decomposition.

OSHA: The United States Occupational Safety and Health Administration.

Oxidizer: A material that readily yields oxygen or other oxidizing gas, or that readily reacts to promote or initiate combustion of combustible materials. Examples of other oxidizing gases include bromine, chlorine and fluorine. For the purposes of 527 CMR 33.00 Organic Peroxides are defined as follows:

Class 4: An oxidizer that can undergo an explosive reaction due to contamination or exposure to thermal or physical shock. Additionally, the oxidizer will enhance the burning rate and can cause spontaneous ignition of combustibles.

Class 3: An oxidizer that will cause a severe increase in the burning rate of combustible materials with which it comes in contact or that will undergo vigorous self-sustained decomposition due to contamination or exposure to heat.

Class 2: An oxidizer that will cause a moderate increase in the burning rate or that causes spontaneous ignition of combustible materials with which it comes in contact.

Class 1: An oxidizer whose primary hazard is that it slightly increases the burning rate but which does not cause spontaneous ignition when it comes in contact with combustible materials.

Oxidizing Gas: A gas that can support and accelerate combustion of other materials.

Person. An individual, firm, corporation, company, partnership, association, including any officer, trustee, assignee, receiver, personal representative, designee, manager or employee thereof.

Physical Hazard: A chemical for which there is evidence that it is a combustible liquid, compressed gas, cryogenic, explosive, flammable gas, flammable liquid, flammable solid, organic peroxide, oxidizer, pyrophoric or unstable (reactive) or water-reactive material.

Process or Processing: A sequence of operations in which the sequence can be inclusive of physical operations such as heating, cooling, mixing, distilling, compressing, and pressurizing, and chemical operations, such as polymerization, oxidation, reduction, and other chemical reaction processes. The sequence can involve but is not limited to: preparation, separation, combination, purification, or any actions that cause a change in state, energy content, or chemical composition.

Reportable Release: Any spill, release, or discharge of a hazardous material that is unanticipated and exceeds the thresholds indicated in 310 CMR 40.1600: *Massachusetts Oil & Hazardous Materials List*.

Pyrophoric: A chemical with an autoignition temperature in air, at or below a temperature of 130°F (54.4°C).

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Toxic: A chemical falling within any of the following categories:

- (a) A chemical that has a median lethal dose (LD50) of more than 50 milligrams per kilogram, but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.
- (b) A chemical that has a median lethal dose (LD50) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.
- (c) A chemical that has a median lethal concentration (LC50) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Unstable (Reactive) Material: A material, other than an explosive, which in the pure state or as commercially produced, will vigorously polymerize, decompose, condense or become self-reactive and undergo other violent chemical changes, including explosion, when exposed to heat, friction or shock, or in the absence of an inhibitor, or in the presence of contaminants, or in contact with incompatible materials. Unstable (reactive) materials are subdivided as follows: For the purposes of 527 CMR 33.00 unstable (reactive) materials are defined as follows:

Class 4: Materials that in themselves are readily capable of detonation or explosive decomposition or explosive reaction at normal temperatures and pressures. This class includes materials that are sensitive to mechanical or localized thermal shock at normal temperatures and pressures.

Class 3: Materials that in themselves are capable of detonation or of explosive decomposition or explosive reaction but which require a strong initiating source or which must be heated under confinement before initiation. This class includes materials that are sensitive to thermal or mechanical shock at elevated temperatures and pressures.

Class 2: Materials that in themselves are normally unstable and readily undergo violent chemical change but do not detonate. This class includes materials that can undergo chemical change with rapid release of energy at normal temperatures and pressures, and that can undergo violent chemical change at elevated temperatures and pressures.

Class 1: Materials that in themselves are normally stable but which can become unstable at elevated temperatures and pressure.

Water-reactive Material: A material that explodes; violently reacts; produces flammable, toxic or other hazardous gases; or evolves enough heat to cause self-ignition or ignition of nearby combustibles upon exposure to water or moisture. For the purposes of 527 CMR 33.00 water-reactive materials are defined as follows:

Class 3: Materials that react explosively with water without requiring heat or confinement.

Class 2: Materials that may form potentially explosive mixtures with water.

Class 1: Materials that may react with water with some release of energy, but not violently.

Vessel: The container in which partial or the actual process takes place. Examples of vessels are beakers, pails, tanks, reactor kettles, pipe reactors, and drums. The size of a vessel is its capacity.

33.03: Categories of Hazardous Processes or Processing

(1) For the purposes of 527 CMR 33.00, a Hazardous Material process shall be classified as follows:

Category 1 Process: A process which involves or produces a Hazardous Material which occurs in a vessel with a capacity that is less than or equal to 2.5 gallons.

Category 2 Process: A process which involves or produces a Hazardous Material which occurs in a vessel with capacity that is greater than 2.5 gallons but less than or equal to 60 gallons.

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Category 3 Process: A process which involves or produces a Hazardous Material which occurs in a vessel that is greater than 60 gallons but is less than or equal to 300 gallons or a process area that is classified as being a H Occupancy as defined by 780 CMR: *Massachusetts State Building Code*.

Category 4 Process: A process which involves or produces a Hazardous Material which occurs in a vessel with a capacity that is greater than 300 gallons and is not considered a Category 5 Process.

Category 5 Process: A Process which involves or produces Hazardous Material which occurs in a vessel with a capacity that is equal or in excess of threshold quantities stated in 29 CFR 1910.119 or 40 CFR Part 68 and regulated by such standard.

(2) Since multiple hazardous material processes may exist within a facility, each facility shall identify all the categories of processes present and verify compliance with all the categories for each process identified at the facility.

33.04: Permit Requirements

(1) No person shall engage in the Process or Processing of any Hazardous Material at any Facility identified in 527 CMR 33.00 as Category 2 through Category 5 unless said Facility is in compliance with the application or permit requirements of the provisions of 527 CMR 33.04(2). A permit holder shall apply for the renewal of said permit on an annual basis. The application shall contain such information and be in a form as prescribed by the Marshal.

(2) An applicant for the permit required by 527 CMR 33.04 shall submit an application for Permit to Process Hazardous Material to the Head of the Fire Department on a form prescribed by the Fire Marshal. A facility shall be deemed in compliance with the permit requirements of 527 CMR 33.04, if a completed application form, signed and attested by the applicant has been filed in accordance with the schedule stated in 527 CMR 33.04(3) and said application is pending review and approval by the head of the fire department.

(3) (a) The application for permit to process hazardous materials shall be submitted in accordance with the following schedule:

- |                    |   |
|--------------------|---|
| 1. January 1, 2013 | Category 5 Hazardous Processes              |
| 2. June 1, 2013    | Category 4 Hazardous Processes              |
| 3. January 1, 2014 | Category 2 and Category 3 Hazardous Process |

(b) For purposes of determining the permit standards and compliance deadline, the highest level of actual or possible Hazardous Processing activity shall determine the appropriate Hazardous Processing Category.

(4) As provided in M.G.L. c. 148, § 10A, the Head of the Fire Department may deny or withhold the issuance of a permit however, such denial or withholding shall be in writing. Said notice of denial shall contain specifications of the alleged violation or deficiency together with their interpretation of 527 CMR 33.00. The Head of the Fire Department may require a person to engage a third party Competent Professional to evaluate the adequacy of Category 3 or Category 4 facility process safety conditions, programs, procedures, and practices undertaken at the facility but only after a notice of denial has been properly served upon the person making application. The report of the Competent Professional shall be submitted to the head of the fire department and shall include the findings, conclusions, and recommendations, if any, with respect to whether the facility is operating in compliance with the provisions of 527 CMR 33.00.

(5) Any person who has been permitted to engage in the Process or Processing of Hazardous Material at any Facility, shall, prior to engaging in any new or modified hazardous material process activity which results in a change to the highest process category authorized by the current permit, notify the Head of the Fire Department of such new change or modification and submit a new application to appropriately modify the existing permit.

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- (6) Unless specifically otherwise stated, a facility which possesses a current permit issued pursuant to 527 CMR 33.04, shall not exempt any person or facility from the requirement to obtain additional or other applicable permits, certifications or licenses under the provisions of 527 CMR, 780 CMR, or Massachusetts General Laws.

33.05: Compliance Requirements Based Upon Category Classification

- (1) Facilities operating hazardous material process as defined by 527 CMR 33.03 shall maintain the following documents and procedures for each process conducted at their facility for the periodic inspection and review by the Head of the Fire Department and remain in compliance with 527 CMR 33.05.

Category 1 Process:

- (a) Provide documentation that adequately demonstrates that the facility maintains and implements a policy in compliance with 29 CFR 1910.1200 and 29 CFR 1910.1450 as applicable, and  
(b) Provide documentation that adequately demonstrates that the facility maintains and implements a policy in compliance with 527 CMR 14.00: *Flammable and Combustible Liquids, Flammable Solids or Flammable Gases*, as applicable, and  
(c) Demonstrates compliance with 527 CMR 33.06.

Category 2 Process:

- (a) Provide documentation that adequately demonstrates that the facility complies with the requirements for a Category 1 process in accordance with 527 CMR 33.05; and  
(b) Provide documentation that adequately demonstrates that the facility has established an emergency response plan in accordance with 527 CMR 33.06. The floor plan does not need to be to scale, but should adequately show locations of utility and process shutoffs locations.  
(c) Comply with the permitting requirements of 527 CMR 33.04.

Category 3 Process:

- (a) Provide documentation that adequately demonstrates that the facility complies with the requirements for a Category 2 process in accordance with 527 CMR 33.05; and  
(b) Completes a Category 3 Hazard Evaluation for each Category 3 process; and  
(c) Ensures a Hazard Evaluation policy is in place and has been completed prior to conducting such process or activity modification thereto; and  
(d) Implements appropriate process safety controls to mitigate the hazards associated with normal and abnormal operating conditions as identified in the Category 3 Hazard Evaluation.  
(e) Comply with the Emergency Response provisions of 527 CMR 33.06.  
(d) Complies with the permitting requirements of 527 CMR 33.04.  
(f) Maintains a Category 3 Hazard Evaluation documents and records for review by the Head of the Fire Department or Marshal for a minimum of two years following issuance of a permit.

Category 4 Process:

- (a) Provide documentation that adequately demonstrates that the facility complies with the requirements for a Category 3 process in accordance with 527 CMR 33.05; and  
(b) Completes a Category 4 Limited Process Safety Program for each Category 4 process.  
(c) Ensure a Category 4 Limited Process Safety Program policy is in place and has been completed prior to each process or being modified.  
(d) Implement appropriate process safety controls to mitigate the hazards associated with normal and abnormal operating conditions as identified in the Category 4 process limited safety program.  
(e) Comply with the permitting requirements of 527 CMR 33.04.  
(f) Comply with the Emergency Response provisions of 527 CMR 33.06.

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33.05: continued

(g) Maintain Category 4 Limited Safety Program documents and records for review by the Head of the Fire Department or Marshal for a minimum of two years following issuance of a permit.

Category 5 Process:

- (a) Implement and self-certify compliance with 29 CFR 1910.119 *Process Safety Management of Highly Hazardous Chemicals* program or with 40 CFR Part 60 *Chemical Accident Prevention Provisions*.
- (b) Comply with the permitting requirements of 527 CMR 33.04.
- (c) Comply with the requirements of 527 CMR 33.06.
- (d) Maintain Hazard Evaluation documents and records for review by the Head of the Fire Department or Marshal for a minimum of two years following issuance of a permit.

33.06: Emergency Response Planning

(1) Each facility that processes hazardous materials shall establish, submit to the Head of the Fire Department or to the Marshal, and retain a copy of, a written emergency response program that includes the following items:

- (a) Identification of all Emergency Coordinators which will either be on the premises or on call and available to respond to an emergency within one hour of an emergency situation; and
- (b) An updated list containing the names, addresses, and the office, home and/or mobile telephone number(s) of all designated Emergency Coordinators and the times of their availability. If for a particular period more than one individual is listed, the primary Emergency Coordinator shall be identified and others shall be listed in the order in which they will assume responsibility to fulfill the requirements of this role; and
- (c) A facility floor plan, not to scale, showing the locations of the hazardous material stored, the typical volumes, location of additional emergency equipment (pads, booms, etc.)
- (d) Facilities covered by Category 3, Category 4 and Category 5 shall have their Emergency Coordinator communicate to the local fire department any concerns and establish a protocol in conjunction with the local fire department on the shutdown of any of the process that would pose a risk to the public in the event of loss of any controls. This protocol shall include a facility liaison to meet with the Incident Commander upon arrival to ensure a safe shutdown if necessary.

(2) The facility shall notify the Head of the Fire Department or the Marshal of any material changes, to the Emergency Response Plan, including the name of the primary Emergency Coordinator, within 14 calendar days of the change.

33.07: Post-incident Analysis

Post-incident analysis shall be applicable to Category 3 and Category 4 processes. For a Category 5 process a copy of the report submitted in accordance with the OSHA or EPA Risk Management Standard shall be considered acceptable.

(1) In the event of an incident involving a process in which there is fire department, EMS response, or a reportable release of a hazardous material, a written post incident analysis must be initiated within 48 hours. Upon completion of the analysis, the Head of the Fire Department shall be given a duplicate copy of the analysis.

(2) A completed post-incident written analysis report shall be completed within 45 days, unless an extension is provided by the Head of the Fire Department for just reason.

(3) The post-incident analysis report shall provide the following information:

- (a) A summary of the cause of the incident and contributing factors;
- (b) Recommendations to prevent a future recurrence;
- (c) A summary of the dates of implementation of the post-incident analysis recommendations and corrective actions;
- (d) A reassessment and confirmation of the category under which the facility is operating or application for a new permit as part of the report.

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33.08: Trade Secrets

A facility owner or operator subject to 527 CMR 33.00 and required to submit to the Department a permit application and/or supporting documents may claim information as a trade secret as that term is defined in M.G.L. c. 4, § 7, cl. 26, and confidential as described in 527 CMR 33.08(1) through (3):

(1) A facility owner/operator may withhold the name of a specific hazardous material when notifying the fire department under 527 CMR 33.04 if that chemical is claimed as a trade secret or confidential business information. If the hazardous material is claimed as a trade secret:

- (a) The generic class or category that is structurally descriptive of the chemical must be provided on the permit application as a matter of public record;
- (b) The Material Safety Data Sheet (MSDS) for the hazardous substance shall be available for review on-site by representatives of the Local Fire Department or the State Fire Marshal.

(2) A facility owner or operator may claim information, required under 527 CMR 33.00, be treated as confidential and not as a matter of public record if:

- (a) The information has not been disclosed to anyone else, other than employees of the facility or a member of the Local Fire Department or State Fire Marshal, an officer or employee of the United States or a state or local government, or anyone who is bound by a confidentiality agreement;
- (b) The facility has taken reasonable measures to protect the confidentiality of such information and intends to continue to take such measures;
- (c) The information is not required to be disclosed, or otherwise made available to the public under any other federal or state law; and
- (d) Disclosure of the information may cause substantial harm to the competitive position of the facility

(3) All documentation and records claimed as trade secret or confidential information, including but not limited to the "Permit to Process Hazardous Material Application," "Hazard Evaluation documentation," "Process Safety Program documentation," shall be clearly marked as "Trade Secret," "Confidential," or other words of similar meaning.

REGULATORY AUTHORITY

527 CMR 33.00: M.G.L. c. 22D, § 4; c. 148 §§ 9, 10, 13 and 28.

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NON-TEXT PAGE