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Perchlorate BMP Draft Language  
October 25, 2005

## Chapter 33. Best Management Practices for Perchlorate Materials

### Article 1. General

#### § 67384.1 Scope

(a) This chapter establishes the best management practices for perchlorate materials as described in section 67384.2.

#### § 67384.2 Applicability

(a) Effective July 1, 2006, the best management practice requirements of this chapter shall apply to all persons managing perchlorate materials as described in section 67384.3, except those listed in subsection (b) of this section.

(b) The best management practice requirements of this chapter do not apply to the following perchlorate materials:

- (1) Perchlorate materials managed as a hazardous waste in compliance with all applicable requirements of California hazardous waste law;
- (2) Onsite perchlorate-contaminated media under the oversight of a regulatory agency with jurisdiction pursuant to applicable environmental statute that addresses response, removal or remedial action of the perchlorate contamination;
- (3) Perchlorate materials containing less than six (6) parts per billion (ppb) of perchlorate;
- (4) Consumer goods manufactured in California prior to, but no later than December 31, 2006, and consumer goods transported into California prior to, but no later than December 31, 2006;
- (5) Food, crops, and pharmaceuticals; and
- (6) Combustion residuals of perchlorate materials.

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## § 67384.3 Definitions

The following definitions shall apply to the terms used in this chapter:

"Business" means an employer, self-employed individual, trust, firm, joint stock company, corporation, partnership, or association. For purposes of this chapter, "business" includes a business organized for profit, a nonprofit business and all of the following:

- (a) The federal government, to the extent authorized by federal law.
- (b) Any agency, department, office, board, commission, or bureau of state government, including, but not limited to, the campuses of the California Community Colleges, the California State University, and the University of California.
- (c) Any agency, department, office, board, commission, or bureau of a city, county or district.

"Commercial" means used by a business to generate revenue or promote the sale of goods or services.

For purposes of this chapter, the term "commercial" does not include material or products used under federal, military, or space launch contract requirements.

"Combustion residual" means any paper, ash, wire, or other physical material that remains after the perchlorate-containing material has been substantially consumed.

For purposes of this chapter, this term does not include the treatment residuals of perchlorate-containing waste or explosive residuals.

"Consumer commodity" means a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use.

"Consumer good" means a product or commodity used by a business that is packaged in a form similar to a consumer commodity.

"Contaminated media" means soil, sediment, surface water, groundwater contaminated with perchlorate.

"Dangerous fireworks", as defined in Health and Safety Code, section 12505, means all of the following:

- (a) Any fireworks which contain any of the following:
  - (1) Arsenic sulfide, arsenates, or arsenites.
  - (2) Boron.
  - (3) Chlorates, except:
    - (A) In colored smoke mixture in which an equal or greater amount of sodium bicarbonate is included.

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- (B) In caps and party poppers.
- (C) In those small items (such as ground spinners) wherein the total powder content does not exceed 4 grams of which not greater than 15 percent (or 600 milligrams) is potassium, sodium, or barium chlorate.
- (4) Gallates or Gallic acid.
- (5) Magnesium (magnesium-aluminum alloys, called magnalium, are permitted).
- (6) Mercury salts.
- (7) Phosphorous (red or white except that red phosphorus is permissible in caps and party poppers).
- (8) Picrates or picric acid.
- (9) Thiocyanates.
- (10) Titanium, except in particle size greater than 100-mesh.
- (11) Zirconium.
- (b) Firecrackers.
- (c) Skyrockets and rockets, including all devices which employ any combustible or explosive material and which rise in the air during discharge.
- (d) Roman candles, including all devices which discharge balls of fire into the air.
- (e) Chasers, including all devices which dart or travel about the surface of the ground during discharge.
- (f) Sparklers more than 10 inches in length or one-fourth of one inch in diameter.
- (g) All fireworks designed and intended by the manufacturer to create the element of surprise upon the user. These items include, but are not limited to, auto-foolers, cigarette loads, exploding golf balls, and trick matches.
- (h) Fireworks known as devil-on-the-walk, or any other firework which explodes through means of friction, unless otherwise classified by the State Fire Marshal pursuant to this part.
- (i) Torpedoes of all kinds which explode on impact.
- (j) Fireworks kits.
- (k) Such other fireworks examined and tested by the State Fire Marshal and determined by him, with the advice of the State Board of Fire Services, to possess characteristics of design or construction which make such fireworks unsafe for use by any person not specially qualified or trained in the use of fireworks.

“Department” means the Department of Toxic Substances Control.

“Explosive residuals” means perchlorate-containing material after the use of high explosives, pyrotechnics, fireworks, or propellants.

For purposes of this chapter, this term does not include combustion residuals.

"Fireworks" means any device containing chemical elements and chemical compounds capable of burning independently of the oxygen of the atmosphere

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and producing audible, visual, mechanical, or thermal effects which are useful as pyrotechnic devices or for entertainment.

The term "fireworks" includes, but is not limited to, devices designated by the manufacturer as fireworks.

"Food" means any raw or processed substance, beverage, including water, or ingredient intended to be used as food, drink, confection, or condiment for human or other animal consumption.

"Household" means a private residence. For the purpose of this section, household does not mean a hotel, motel, bunkhouse, ranger station, crew quarters, campground, picnic ground, or day-use recreation facility.

"Household waste" means any materials, including garbage or trash that is generated by residents through the use of a consumer commodity in a household.

"Highway", as defined in California Vehicle Code section 360, means a way or place of whatever nature, publicly maintained and open to the use of the public for purposes of vehicular travel. Highway includes streets.

"Managing perchlorate materials" means generation, storage, transportation, manufacture, processing, fabrication, packaging, use, reuse, treatment, transfer, pumping, recovery, recycling, spill response, disposal, and discharge.

"Material Safety Data Sheet" means written or printed material concerning a hazardous chemical which is prepared in accordance with title 29 of the Code of Federal Regulations, section 1910.1200(g)

"Military munitions", as defined in the Code of Federal Regulations, section 260.10, means all ammunition products and components produced or used by or for the U.S. Department of Defense (DOD) or the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons

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program after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

“Non-hazardous waste” means a waste that does not meet the definition of hazardous waste as defined in title 22 of the California Code of Regulations, section 66260.10.

“Packaging” means a receptacle and any other components or materials necessary for the receptacle to perform its containment function in conformance with the minimum packing requirements of this chapter.

“Perchlorate material” as defined in Health and Safety Code 25210.5 means all perchlorate-containing materials including perchloric acid and perchlorate compounds. “Perchlorate material” includes all forms of matter, goods, and products and shall not be limited by other statutory or regulatory definitions of “material”.

"Pyrotechnic operator", as defined in Health and Safety Code, section 12527, means any licensed pyrotechnic operator, who by examination, experience, and training, has demonstrated the required skill and ability in the use and discharge of fireworks as authorized by the license granted.

"Pharmaceutical", as defined in title 21 of the United States Code, section 321(g)(1), means a prescription or over-the-counter human or veterinary drug, including, but not limited to, a drug as defined in Section 109925 or the Federal Food, Drug, and Cosmetic Act, as amended.

"Public display of fireworks" means, as defined in Health and Safety Code, section 12524, an entertainment feature where the public or a private group is admitted or permitted to view the display or discharge of fireworks.

“Public safety activity” means any activity intended to protect people or property, including, but not limited to, law enforcement services, fire protection and suppression, emergency medical care, tow operations, emergency services, public utility service and repair, homeland security, and highway maintenance and repair.

“RWQCB” means the California Regional Water Quality Control Board.

“Spill” means unintentional release of perchlorate material.

For purposes of this chapter, this term does not include contaminated media excluded under section 67384.2(b)(2) of this chapter.

“Water-resistant package” means a package that when closed, under conditions incidental to handling, is substantially impervious to rain, spray, and run on.

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**§ 67384.4 Labeling best management practice requirements for perchlorate materials**

(a) Persons who manufacture perchlorate materials, repackage perchlorate materials, distribute perchlorate materials for sale, receive perchlorate materials for resale or use in California, or generate a perchlorate containing waste shall ensure that the perchlorate materials are properly labeled. Labels shall be applied conspicuously on the exterior of all outer shipping packages and on consumer packages. All perchlorate material, except those materials listed in subsection (b) of this section, shall be labeled or marked clearly with the following, "Perchlorate Material – Environmental Hazard – special handling and disposal restrictions may apply, See [www.dtsc.ca.gov/perchlorate](http://www.dtsc.ca.gov/perchlorate)".

(b) The best management practice requirements of this section do not apply to the following perchlorate materials:

- (1) Household waste;
- (2) Perchlorate-containing water resulting solely from treatment with a sanitizer, disinfectant, or bleach;
- (3) Perchlorate materials used or maintained at a site where all personnel handling the perchlorate material have received instruction on, have access to information in the workplace, and comply with the perchlorate Best Management Practice requirements of this chapter;
- (4) Perchlorate materials which are accompanied with a Material Safety Data Sheet, shipping document, or package insert that includes all the information required in the label pursuant to subsection (a);
- (5) Finished products produced pursuant to federal, military or space launch contract requirements;
- (6) Wastewaters that are discharged under the oversight of a regulatory agency with jurisdiction over discharges; and
- (7) Non-hazardous perchlorate wastes resulting from the use of safety flares during a public safety activity.

(c) The best management practice requirements of this section do not apply to end user of consumer goods.

**§ 67384.5 Packaging best management practices requirement for perchlorate materials**

(a) Each package used for the containment of perchlorate materials under this section, unless contained as specified in section 67384.6, shall:

- (1) be designed, constructed, maintained, filled, its contents so limited, and closed, so that under conditions normally incident to handling, there will be no identifiable release of perchlorate materials to the environment; and
- (2) be contained in a water-resistant package.

(b) Perchlorate-containing products that are constructed and maintained such that they meet the packaging requirement of subsection (a) need not also comply with the containment requirements specified in section 67384.6. These products may include, but are not limited to the following: batteries, air bag initiators, air bag inflators, bullets, missiles, rockets, and primers.

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**§ 67384.6 Containment best management practice requirements for the storage, processing and manufacturing of perchlorate materials**

(a) Unless listed in subsection (b) of this section, perchlorate materials not packaged or produced as specified in section 67384.5 during storage, processing and manufacturing, shall be contained in weather resistant structures with floors that:

- (1) are adequately water-resistant to prevent seepage into or out of the containment structure;
- (2) do not have drains that release to the environment; and
- (3) are of adequate strength to support the loads.

(b) Containment requirements specified in this section shall not apply to the following:

- (1) Perchlorate-containing water resulting solely from treatment with a sanitizer, disinfectant, or bleach;
- (2) Manufacturing processes, which because of explosion or fire risk, are not conducted within a confined structure, but meet all other requirements of subsection (a) above, and
- (3) Fertilizers stored for less than thirty (30) days on the site of intended application.





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- (b) The weight or volume of the following products or materials shall not be considered when calculating the 500 pound or 55 gallon notification threshold of subsection (a);
- (1) Automobiles;
  - (2) Appliances; and
  - (3) Perchlorate-containing water resulting solely from treatment with a sanitizer, disinfectant, or bleach.
- (c) The requirements of this section do not apply to military munitions managed in accordance with Department of Defense regulations.
- (d) Electronic notifications submitted under subsection (a) shall be submitted to [www.dtsc.ca.gov](http://www.dtsc.ca.gov).
- (e) Written notifications submitted under subsection (a) shall be submitted to the Department by certified mail, return receipt requested to: Department of Toxic Substances Control, Hazardous Waste Management Program, Regulatory and Program Development Division, P.O. Box 806, Sacramento, CA 95812-0806, with "Attention: Perchlorate Materials BMPs" prominently displayed on the front of the envelope.
- (f) A business submitting written notification under section (a) may request that confidential business information in the notification and any information that would have site security implications be withheld from public disclosure by the Department.

**§ 67384.8 Special best management practices for flares and pyrotechnic perchlorate materials**

(a) Road safety flares should be used in a manner that minimizes releases of perchlorate to the environment. As many of the following practices should be implemented to the extent practical without impeding immediate safety considerations:

- (1) Flares should be allowed to burn completely;
- (2) Flares used in an emergency incident should be limited in number and duration necessary to ensure safety; and
- (3) All personnel who routinely use flares in the normal course of employment should receive instruction on the potential environmental hazards associated with the use of perchlorate materials and on the perchlorate Best Management Practice requirements of this chapter.

(b) Marine safety flares shall be used in a manner that minimizes releases of perchlorate to the environment.

(c) Within twenty-four (24) hours of a public display of fireworks, the pyrotechnics operator, in addition to complying with title 19 of the California Code of Regulations, section 1003, shall, to the extent practical, collect any explosive residuals found during the inspection of the entire firing range.

**§ 67384.9 Spill response best management practices for non-hazardous perchlorate materials**

(a) For spills of non-hazardous perchlorate materials to the environment, a handler of perchlorate materials:

- (1) Shall immediately take action to stop and contain all spills of perchlorate material;
- (2) Shall determine whether any material resulting from the spill is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of this division. The handler is considered the generator of the material resulting from the release, and shall manage it in compliance with chapter 12 of this division;
- (3) Should collect to the extent practical any material resulting from the spill;
- (4) Should decontaminate the spill area; and
- (5) Should prevent or minimize releases to storm sewers.

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**§ 67384.10 Discharge/Disposal restrictions for perchlorate materials**

(a) When solid non-hazardous perchlorate containing waste is land disposed in California, it shall be disposed of in either:

- (1) a hazardous waste landfill, or
- (2) a composite-lined portion of a non-hazardous waste landfill that meets all requirements applicable to disposal of municipal solid waste in California after October 9, 1993; if:
  - (A) The leachate from the landfill units receiving the perchlorate material is monitored for perchlorate; and
  - (B) The results of the monitoring are submitted to the Regional Water Quality Control Board.

(b) When non-hazardous liquid perchlorate containing wastewater is discharged in California, it shall only be discharge as follows:

- (1) If the facility owner or operator discharges to a publicly owned treatment works (POTW), the owner or operator
  - (A) Shall notify the POTW and/or the appropriate Regional Water Quality Control Board of the time, volume, content, characteristics and point of the discharge and any other information required, and
  - (B) Shall apply for a permit or a change to the existing permit conditions which specify the effluent limitations for perchlorate, if deemed necessary by the POTW agency.
- (2) If the facility owner or operator discharges to surface waters, the owner or operator
  - (A) Shall notify the appropriate Regional Water Quality Control Board of the time, volume, content, characteristics and point of the discharge and any other information required, and
  - (B) Shall apply for a permit or a change to the existing permit conditions which specify perchlorate discharge limitations, if deemed necessary by the appropriate Regional Water Quality Control Board.
- (3) If the facility owner or operator discharges to land, the owner or operator
  - (A) Shall file a Report of Discharge form to notify the appropriate Regional Water Quality Control Board, and
  - (B) Shall apply for a permit or a change to the existing permit conditions, or waiver which specify perchlorate discharge limitations, if deemed necessary by the appropriate Regional Water Quality Control Board.

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(c) The POTWs receiving wastewater from business that have identified perchlorate-containing discharges, shall monitor the POTW's effluent for perchlorate and shall include the perchlorate as a constituent on their National Pollutant Discharge Elimination System (NPDES) permit.

(d) The requirements of this section do not apply to:

(1) Perchlorate-containing water resulting solely from treatment with a sanitizer, disinfectant, or bleach; and

(2) Household non-hazardous perchlorate-containing waste

(e) Non-hazardous perchlorate wastes resulting from the use of safety flares during a public safety activity are exempt from this subsection.

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**§ 67384.11 Perchlorate restrictions**

(a) On or before January 1, 2008 and every 5 years thereafter, a business that uses perchlorate-containing fertilizers, road safety flares, commercial explosives, or commercial blasting agents, in an amount greater than 500 pounds in any month, shall:

- (1) review their use of these perchlorate-containing products in order to determine if non-perchlorate-containing alternatives are available and adequate for substitution; and
- (2) review and update pollution prevention measures taken to prevent releases of perchlorate; and
- (3) submit to the Department a certification documenting the completion of both reviews and identifying the product substitution analysis relied upon in determining that a non-perchlorate-containing alternative is unavailable or inadequate; or
- (4) submit to the Department a certification stating the specific reason that product substitution and pollution prevention was not possible or was unnecessary.

(b) On or before January 1, 2008 and every 5 years thereafter, a business that uses dangerous fireworks, or solid rocket motors, in amounts greater than 500 pounds in any one month, shall submit to the Department:

- (1) analytical results of existing stormwater monitoring mandated by a stormwater permit authorized by the State Water Resource Control Board or an applicable Regional Water Quality Control Board that requires monitoring for perchlorate. If the business is subject to an existing stormwater permit that does not require monitoring for perchlorate, the business shall add perchlorate to the list of constituents to be monitored and submit to the Department the resulting analytical results; or
- (2) any environmental monitoring results of soil and/or water within the facility or site that includes perchlorate. If the business conducts environmental monitoring that does not include perchlorate, the business shall add perchlorate to the list of constituents to be monitored and submit to the Department the resulting analytical results.

(c) Pursuant to HSC section 25210.7, a business may not manage perchlorate materials unless the management complies with the best management practices specified in the subsections (a) and (b) above.