

Subchapter 7. General Industry Safety Orders Group 2. Safe Practices and Personal Protection
Article 10. Personal Safety Devices and Safeguards

§3395. Heat Illness Prevention

(a) Scope and Application. This section applies to the control of risk of occurrence of heat illness. This is not intended to exclude the application of other sections of Title 8, including, but not necessarily limited to, sections 1230(a), 1512, 1524, 3203, 3363, 3400, 3439, 3457, 6251, 6512, 6969, 6975, 8420 and 8602(e). This section applies to all outdoor places of employment at those times when the environment risk factors for heat illness, as defined in (b), are present.

Note No. 1: The measures required here may be integrated into the employer's Injury and Illness Program required by section 3203. The measures required here may be integrated into the employer's Injury and Illness Program required by section 3203.

Note No. 2: This standard is enforceable by the Division of Occupational Safety and Health pursuant to Labor Code sections 6308 and 6317 and any other statutes conferring enforcement powers upon the Division. It is a violation of Labor Code sections 6310, 6311, and 6312 to discharge or discriminate in any other manner against employees for exercising their rights under this or any other provision offering occupational safety and health protection to employees. This standard is enforceable by the Division of Occupational Safety and Health pursuant to Labor Code sections 6308 and 6317 and any other statutes conferring enforcement powers upon the Division. It is a violation of Labor Code sections 6310, 6311, and 6312 to discharge or discriminate in any other manner against employees for exercising their rights under this or any other provision offering occupational safety and health protection to employees.

(b) Definitions.

"Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

"Heat Illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

"Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

"Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

"Preventative recovery Period" means a period of time to recover from the heat in order to prevent heat illness.

"Shade" means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.

(c) Provisions of Water. Employees shall have access to potable drinking water meeting the requirements of Sections 1524, 3363, and 3457, as applicable. Water shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water, as described in (e), shall be encouraged.

(d) Access to Shade. Employees suffering from heat illness or believing a preventative recovery period is needed, shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes. Such access to shade shall be permitted at all times.

(e) Training.

(1) Employee training. Training in the following topics shall be provided to all supervisory and non-supervisory employees.

(A) The environmental and personal risk factors for heat illness;

(B) The employer's procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness;

(C) The importance of frequent consumption of small quantities of water, up to 4 cups per hour under extreme conditions of work and heat;

(D) The importance of acclimatization;

(E) The different types of heat illness and the common signs and symptoms of heat illness;

(F) The importance of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers;

(G) The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;

(H) Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;

(I) How to provide clear and precise directions to the work site.

(2) Supervisor training. Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

(A) The information required to be provided by section (e)(1) above.

(B) The procedures the supervisor is to follow to implement the applicable provisions in this section.

(C) The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

(f) Review.

No later than January 1, 2006, the Occupational Safety and Health Standards Board shall review the feasibility of providing shade for all rest periods at outdoor places of employment.



Treated Wood Waste Management


FACT SHEET, November 2005

Health and Safety Code (HSC) Sections 25143.1.5, 25150.7, 25150.8

This fact sheet provides information and guidance for handling and disposing Treated Wood Waste (TWW). Former exemptions have been rescinded.

Until January 1, 2007, certain TWW is exempted from hazardous waste requirements when certain restrictions are met. It must (a) be lawfully disposed, (b) be handled in a manner that complies with all applicable rules, regulations, and orders relating to hazardous waste, (c) not be scavenged, burned, or recycled, and (d) stored for less than 90 days, kept dry, and placed on an impervious surface.

General Information

- These laws apply to anyone who handles treated wood including consumers, retailers, contractors, treated wood wholesalers, and the wood preserving industry.
- Treated wood means wood that has been treated with a chemical preservative to protect the wood from insects, microorganisms, fungi, and other environmental conditions that can lead to wood decay. Some commonly applied chemicals include creosote, pentachlorophenol, copper azole (CA-B), copper boron azole (CBA), chromated copper arsenate (CCA), ammoniacal copper zinc arsenate (ACZA), copper naphthenate, and alkaline copper quaternary (ACQ). The wood preservatives are registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and by the California Department of Pesticide Regulation (DPR). Other common surface applied coatings such as paint, varnish, and oil stain, are not considered wood preservatives.
- **Treated wood waste that is regulated as hazardous waste pursuant to Federal Law ("RCRA-TWW") must comply with the applicable California hazardous waste requirements, including, as applicable, generator, transportation, and facility management standards. An example of RCRA-TWW is CCA-treated wood waste scrap generated within a wood treating plant which is classified or characterized as hazardous under the federal rules.**
- **Treated wood waste that is not a RCRA-TWW may be considered a solid waste (not a hazardous waste) when it is managed according to HSC § 25143.1.5. This type of treated wood waste (TWW-utility) can only be generated by removal from electric, gas, or telephone service and may be disposed in a composite lined unit of a municipal solid waste landfill that is allowed to accept such waste.**
- Treated wood waste that is a) hazardous waste under California law, b) is not a RCRA-TWW, and c) not from electric, gas, or telephone service (not utility exempt) is eligible for the provisions of HSC § 25150.7 and 25150.8. This type of treated wood waste is referenced as **TWW** in the remainder of this fact sheet. TWW may be disposed only in hazardous waste landfills or qualified solid waste 

landfills.

- Treated wood waste that is not hazardous under California law may be disposed at a nonhazardous landfill according to the authorization and provisions of the landfill. For management options for non-hazardous waste, contact the California Integrated Waste Management Board (CIWMB) at (916) 341-6376.

Predisposal Management of TWW - Interim Standards

From January 1, 2005 until January 1, 2007, HSC § 25150.7 (e) exempts TWW from hazardous waste requirements when it is managed in a manner that prevents scavenging, no mixing with other waste prior to disposal, burning, and recycling occurs (except as allowed under the HSC § 25201 and § 25143.2) and:

- 1) Is handled in a manner that complies with all applicable California Occupational Safety & Health Act (Cal/OSHA) requirements, including all rules, regulations, and orders relating to hazardous waste.
- 2) On and after July 1, 2005, is stored for less than 90 days, kept dry, protected from run-on and run-off, and is placed on an impervious surface that prevents, to the extent practical, contact with and any leaching to soil or water.

California Treated Wood Waste Disposal

RCRA-TWW must be disposed at a hazardous waste landfill. There are three hazardous waste landfills in California eligible to accept RCRA-TWW: Chemical Waste Management, Kettleman Hills; Clean Harbors, Buttonwillow; and Clean Harbors, Westmorland.

TWW-utility {HSC § 25143.1.5} must be disposed of in the composite lined portion of a municipal solid waste landfill that is authorized by a Regional Water Quality Control Board (RWQCB) and that has Waste Discharge Requirements (WDRs) that allow acceptance of such waste.

TWW {HSC § 25150.7 (d)} must be disposed in a hazardous waste landfill or qualified solid waste landfill. Qualified solid waste landfills are those that:

- 1) Are regulated by Waste Discharge Requirements allowing disposal of a designated waste or TWW. TWW may only be disposed in a composite lined

portion of the solid waste landfill.

- 2) Manage the TWW in a manner to prevent scavenging.
- 3) Ensure that management of the TWW at the solid waste landfill prior to disposal, or in lieu of disposal, complies with applicable requirements.
- 4) Cease TWW disposal when monitoring of the landfill unit in which TWW has been disposed indicates a verified release.

For information about landfills eligible to accept TWW, call the Department of Toxic Substances Control (DTSC) at (916) 322-0348. Contact the landfill prior to delivery to determine if TWW is accepted. The landfill operator may choose to not accept TWW.

TWW Alternative Management Standards

DTSC will adopt regulations establishing alternative management standards (AMS) by January 1, 2007 per HSC § 25150.7(g). In adopting the AMS, DTSC will consult with the California Integrated Waste Management Board (CIWMB), the State Water Resources Control Board (SWRCB), and the Office of Environmental Health Hazard Assessment (OEHHA). The regulations will ensure that TWW be managed to prevent, to the extent practical, releases of hazardous constituents to the environment, prevent scavenging, and prevent harmful exposure of people, aquatic life and animals to hazardous chemical constituents of the TWW. When these regulations are adopted, TWW may be managed in accordance with either: (a) the AMS, or (b) the requirements of HSC, Division 20, Chapter 6.5. Hazardous Waste Control and DTSC regulations that apply to hazardous waste.

In addition, HSC § 25150.7(g) requires the AMS regulations to ensure:

- That TWW is not reused, with or without treatment, except for a purpose that is consistent with the approved use of the preservative with which the wood has been treated. Approved use means a use approved at the time the treated wood is reused.
- That all employees involved in the acceptance, storage, transport, and other management of TWW are trained in the safe and legal management of TWW, including, but not limited to, procedures for identifying and segregating TWW.

- Any size reduction of TWW must be conducted in a manner that prevents the uncontrolled release of hazardous constituents to the environment, and must conform to applicable worker health and safety requirements.
- All sawdust and particles from size reduction at a landfill must be captured and shall be managed as TWW.

DTSC TWW Variances

Pursuant to HSC § 25150.7 (i) all past DTSC (formerly the Department of Health Services) variances involving TWW became inoperative on January 1, 2005.

Treated Wood Products Notification

Per section 25150.7 (f), every wholesaler or retailer of treated wood and treated wood-like products in California is required to conspicuously post information concerning health risks posed by the products and precautions to be taken when working with treated wood. Notification shall be posted near the point of display of treated wood products used for fencing, decking, retaining walls, landscaping, outdoor structures and similar uses.

Additional information may be found on the Western Wood Preservers Institute[®] website in the section named Treated Wood in California. The WWPI web address is www.wwpinstitute.org or call 866-696-8315.

Important Dates

- January 1, 2005

HSC § 25150.7 (e) provides a conditional exemption from hazardous waste control laws for TWW. All previously granted variances governing the management of TWW are inoperative and have no further effect.

- July 1, 2005

The wood preserving industry shall, in consultation with DTSC, make information available to handlers of TWW on how to manage and dispose the waste, HSC § 25150.7 (f)(2).

- January 1, 2007 (on or before)

DTSC shall develop and adopt Alternative Management Standards (AMS) for TWW, HSC §

25150.7 (g)(1).

- January 1, 2007

The conditional exemption for TWW expires. TWW is to be managed according to HSC, Division 20, Chapter 6.5. Hazardous Waste Control and DTSC regulations or the AMS for TWW after this date, HSC § 25150.7 (e)(2).

- June 1, 2011

DTSC shall prepare and post on its web site a report determining compliance with the requirements of the TWW law, HSC § 25150.7 (k).

- January 1, 2013

The present requirements imposed by HSC § 25150.7 are repealed, unless another statute is enacted. AMS adopted pursuant to HSC § 25150.7 (g) continue in full effect, HSC § 25150.7 (l).

Frequently Asked Questions

Q 1. How can I tell if wood has been preserved?

A. The following guidelines may help you determine if wood has been preserved:

- It may be identified by an ink stamp on the wood or an end tag on new material, these markings may still be visible on used material.
- Most preserved wood used in structural or industrial applications will have been *incised*, a process whereby the wood is conditioned by making small closely spaced incisions on the full surface of the wood to enhance penetration of preservative into the material. The presence of these small cuts that resemble staple holes indicates the material was treated with a preservative.
- If the material has not been stained or dyed it may appear greenish if a copper based preservative was used. Industrial or transportation system wood may be dark brown in color with an oily appearance if it was preserved.
- A fresh cut through the wood may reveal the penetration of the preservative into the outer quarter to one inch of the wood, depending upon the method of treatment and use.

- Consider the type of project the wood was used in. It may be treated material if it was in

contact with the ground or installed for harsh use. Wood that is not naturally decay resistant such as pine is more likely to be preserved. Decay resistant species like redwood or cedar are usually installed without preservative treatment.

- A laboratory analysis can determine if a preservative is present in the wood.

Q 2. Where may I dispose TWW?

A. TWW should be disposed at a HW landfill or a solid waste landfill that accepts TWW. DTSC maintains a list of hazardous waste disposal facilities. The list may be viewed at: www.dtsc.ca.gov/HazardousWaste/LIST_HWM_Commercial_Facilities.pdf.

For information about solid waste landfills that accept TWW, call DTSC's Hazardous Waste Management Program at (916) 322-0348.

Q 3. Does this law require that preserved wood be removed from service if it is appropriately used?

A. No.

Q 4. Is all preserved wood waste a hazardous waste?

A. No. Some preserved wood does not contain hazardous constituents, while other preserved wood waste is not a hazardous waste when preservative concentrations are below regulatory thresholds. There are no statutory or regulatory limits on the disposal of non hazardous waste preserved wood. It may be disposed at landfills according to the provisions of each facilities authorization.

Q 5. Does this new law prohibit the use of preserved wood products?

A. No.

Q6. If I have a preserved wood product that I no longer intend to use, can I transfer it to another person who will continue to use it for its intended purpose?

A. Yes, preserved wood products that are relinquished to another user and are used for the purpose for which they were originally manufactured are not wastes (and are not regulated as hazardous wastes).

Q7. Do restrictions other than those in HSC § 25143.2 exist for reuse of waste preserved wood?

A. Yes, scavenging of this waste is prohibited. When a preserved wood product is no longer serviceable (e.g., because of degradation over time) or

when an original owner of a preserved wood product intends to discard it, or actually discards it, the preserved wood product becomes a waste and possibly a hazardous waste that may not be scavenged after being discarded.

DTSC Public and Business Liaisons (Duty Officers)

If you cannot find the information that you are looking for in this fact sheet, contact DTSC's Public and Business Liaisons (Duty Officers) at 800-728-6942. Contact information may be viewed at: www.dtsc.ca.gov/Flyers/OAD_fly_Domap.pdf.

For more information about Waste Preserved-Wood, call DTSC's Hazardous Waste Management Program at (916) 324-0064.

Acronyms

ACZA – Ammoniacal Copper Zinc Arsenate
ACQ – Alkaline Copper Quaternary
AMS – Alternative Management Standard
CCA – Chromated Copper Arsenate
CIWMB – California Integrated Waste Management Board
CA-B – Copper Azole
CBA – Copper Boron Azole
DTSC – Department of Toxic Substances Control
DPR – Department of Pesticide Regulation
FIFRA – Federal Insecticide, Fungicide, and Rodenticide Act
HSC – Health and Safety Code
HWCL – Hazardous Waste Control Law (HSC, Division 20, Chapter 6.5)
OEHHA – Office of Environmental Health Hazard Assessment
RCRA – Resource Conservation and Recovery Act
RWQCB – Regional Water Quality Control Board
SWRCB – State Water Resources Control Board
WDRs – Waste Discharge Requirements

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Section 3650 to read as follows:

§3650. Industrial Trucks. General.

(a) All new low lift and high lift trucks manufactured after June 26, 1998, shall be labeled as meeting the design and construction requirements of Part III, ASME B56.1-1993, Safety Standard for Low Lift and High Lift Trucks. All low lift and high lift trucks manufactured on or before June 26, 1998, shall be labeled as meeting either the design and construction requirements of the ASME standard indicated above or Part II, of the ANSI B56.1-1975 standard.

(b)(1) Except as provided in subsection (a), industrial trucks manufactured after September 1, 1991 through March 1, 1999 shall have affixed a legible tag or label stating compliance with the following applicable standards or those listed in subsection (b)(2):

NFPA 505-1987, formerly ANSI B56.2-1987, for powered industrial trucks,

UL 583-1984, formerly ANSI B56.3-1977, for electric-battery-powered industrial trucks,

UL 558-1984, formerly ANSI B56.4-1977, for internal combustion engine powered industrial trucks,

ANSI/ASME B56.5-1988 for guided industrial vehicles,

ANSI/ASME B56.6-1987 for rough terrain forklift trucks,

ANSI/ASME B56.7-1987 for industrial crane trucks,

ANSI/ASME B56.8-1988 for personnel and burden carriers,

ANSI/ASME B56.9-1987 for operator controlled industrial tow tractors.

(2) Except as provided in subsection (a), industrial trucks manufactured after March 1, 1999 shall have affixed a legible tag or label stating compliance with the following applicable standards:

NFPA 505-1987, formerly ANSI B56.2-1978, for powered industrial trucks,

UL 583-1991, for electric-battery-powered industrial trucks,

UL 558-1991, for internal combustion engine powered industrial trucks,

ASME B56.5-1993, for guided industrial vehicles and automated functions of manned industrial vehicles,

ASME B56.6-1992, for rough terrain forklift trucks,

ANSI/ASME B56.7-1987, for industrial crane trucks,

ASME B56.8-1993, for personnel and burden carriers,

ASME B56.9-1992, for operator controlled industrial tow tractors.

(3) All name plates and model number, type designation and load capacity markings on industrial trucks, shall be maintained in a legible condition by the employer.

(c) Industrial trucks shall be designed, constructed and maintained in accordance with the applicable standards specified in subsections (a) and (b) of this section.

~~(e)~~(d) If the truck is equipped with front-end attachments other than factory installed attachments, the truck shall be marked to identify the attachments and show the approximate weight of the truck and attachment combination, and capacity of the truck and attachment combination at maximum elevation of the load engaging means with the load laterally centered.

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~~(d)~~(e) Major modifications and structural changes to high lift trucks, industrial trucks and rider trucks that affect the capacity and safe handling of the vehicles shall not be performed by the employer or user without prior written approval from the manufacturer unless the modification is designed, manufactured, and installed in accordance with recognized good engineering and manufacturing principles. The capacity, operation and maintenance instruction plates shall be changed accordingly.

~~(e)~~(f) Industrial trucks originally approved for the use of gasoline for fuel may be converted to liquefied petroleum gas fuel provided the complete conversion results in a truck which embodies the features specified for LP or LPS designated trucks as defined in Chapter 1-3, of NFPA 505-1987, which is herein incorporated by reference. Such conversion equipment shall be approved.

(1) When a conversion kit is installed, the original type designation shall be removed or obliterated and replaced with a durable, corrosion-resistant plate permanently mounted on the truck indicating the type designation of the converted truck.

~~(f)~~(g) Powered industrial trucks shall not be operated in atmospheres containing more than 20 percent of the Lower Explosive Limit of flammable gas or vapor unless approved for the area as provided in ~~(g)~~(h).

NOTE: Concentrations below 20 percent of the Lower Explosive Limit may still require mandatory use of air-supplied respiratory protection. (See Section 5144.)

~~(g)~~(h) Only industrial trucks approved for the exposure may be operated in atmospheres containing hazardous quantities of combustible dusts and ignitable fibers. Approval and area designation shall be based on NFPA 505-1982 with appropriate labeling.

(1) Approved trucks shall bear a permanent legible label or some other identifying mark indicating approval by the testing laboratory.

~~(h)~~(i) When industrial trucks operate in areas where general lighting is less than 2 footcandles per square foot, directional lighting shall be provided on the truck.

~~(i)~~(j) Trailers disconnected from their tractor shall be secured to prevent them from up-ending during loading or unloading operations. This may require utilization of auxiliary jacks designed for that purpose.

~~(j)~~(k) Industrial trucks shall not be operated in areas that expose the operator to the hazard of collision with overhead obstructions unless the truck is equipped with overhead guards. (See Section 3655.)

~~(k)~~(l) Loads of excessive width, length or height shall be so balanced, braced, and secured as to prevent tipping and falling.

~~(l)~~(m) Batteries installed in trucks shall be secured in suitable racks which are secured to the truck.

~~(m)~~(n) Motorized hand and hand/rider trucks shall be designed so that the brakes are applied and the power to the drive motor shut off when the operator releases his grip on the control tongue, or the device used to control travel.

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EXCEPTION: Vehicles designed for use in order picking operations are exempt from the braking requirements, provided the speed of the vehicle does not exceed 3.5 mph while the operator is walking the vehicle.

~~(n)~~(o) Radio remote control vehicles shall be equipped with positive means which restrict the speed of the vehicle to 3.5 mph while the equipment is being operated with radio remote control.

~~(o)~~(p) Steering knobs shall not be used unless the truck is equipped with power steering.

~~(p)~~(q) When cargo is being towed on pipe trucks or similar equipment, a safe means shall be provided to protect the driver from sliding loads.

~~(q)~~(r) Counterweights shall be so affixed that they cannot be accidentally dislodged.

~~(r)~~(s) Forks, fork extensions and other attachments shall be secured so that they cannot be inadvertently dislodged, and shall be used only in accordance with the manufacturer's recommendations.

~~(s)~~(t) Industrial trucks and tow tractors shall be operated in a safe manner in accordance with the following operating rules:

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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PROPOSED STATE STANDARD,
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Amend Section 5154.1 to read:

§5154.1. Ventilation Requirements for Laboratory-Type Hood Operations.

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(b) Definitions.

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Hazardous Substance. One which by reason of being explosive, flammable, poisonous, an irritant, or otherwise harmful, is likely to cause injury or illness if not used with effective control methods.

Laboratory-Type Hood. A device enclosed except for necessary exhaust purposes on three sides and top and bottom, designed to draw air inward by means of mechanical ventilation, operated with insertion of only the hands and arms of the user, and in which used to control exposure to hazardous substances are used. These devices are also known as laboratory fume hoods.

(c) Ventilation Rates.

(1) Laboratory-type hood face velocities shall be sufficient to maintain an inward flow of air at all openings into the hood under operating conditions. The hood shall provide confinement of the possible hazards and protection of the employees for the work ~~which~~ that is performed. The exhaust system shall provide an average face velocity of at least 100 ~~linear~~ feet per minute with a minimum of 70 fpm at any point, except where more stringent special requirements are prescribed in other sections of the General Industry Safety Orders, such as Section 5209. The minimum velocity requirement excludes those measurements made within 1 inch of the perimeter of the work opening.

(2) When a laboratory-type hood is in use to contain airborne hazardous substances and no employee is in the immediate area of the hood opening, the ventilation rate may be reduced from the minimum average face velocity of at least 100 feet per minute to a minimum average face velocity of 60 feet per minute if the following conditions are met:

(A) The reduction in face velocity is controlled by an automatic system which does not require manual intervention. The automatic system shall increase the airflow to the flow required by (c)(1) when the hood is accessed.

(B) The laboratory-type hood has been tested at the reduced flow rate according to the tracer gas method specified in Section 7, Tracer Gas Test Procedure, of ANSI/ASHRAE 110-1995, Method of Testing Performance of Laboratory Fume Hoods, which is hereby incorporated by reference, and has a hood performance rating of 4.0 AU 0.1 or less. The test may be performed with or without the mannequin described in the ANSI/ASHRAE 110-1995 tracer gas method.

(C) The record of the most recent tracer gas test results and the "as used" test configuration shall be maintained as long as the automatic system is operable and thereafter for five years.

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(e) Special Requirements.

(1) The face velocity required by subsection (c) should be obtainable with the movable sashes fully opened. Where the required velocity can only be obtained by partly closing the sash, the sash or jamb shall be marked to show the maximum opening at which the hood face velocity will meet the requirements of subsection (c). Any hood failing to meet the requirements of subsection (c) and this paragraph shall be considered deficient in airflow and shall be posted with placards, plainly visible, which prohibit use of hazardous substances within the hood.

(2) When flammable gases or liquids are used, or when combustible liquids are heated above their flashpoints, hoods ~~that are not bypassed shall have permanent stops installed which will restrict closure of the sash so that sufficient airflow is maintained to prevent explosions shall be designed, constructed, and installed so that hood openings at all sash positions provide sufficient airflow to prevent ignitable concentrations.~~ Concentrations in the duct shall not exceed 20% of the lower explosive limits.

(3) In addition to ~~requirements in being tested as required by Section 5143(a)(5), a means shall be provided at the hoods shall meet the following requirements:~~

(A) By January 1, 2006, hoods shall be equipped with a quantitative airflow monitor that to continuously indicates whether that air is flowing into the exhaust system during operation. The quantitative airflow monitor shall measure either the exact rate of inward airflow or the relative amount of inward airflow. Examples of acceptable devices that measure the relative amount of inward airflow include: diaphragm pressure gauges, inclined manometers, and vane gauges. The requirement for a quantitative airflow monitor may also be met by an airflow alarm system if the system provides an audible or visual alarm when the airflow decreases to less than 80% of the airflow required by subsection (c).

(B) Qualitative airflow measurements that indicate the ability of the hood to maintain an inward airflow at all openings of the hood as required by subsection (c)(1) above shall be demonstrated using smoke tubes or other suitable qualitative methods upon initial installation. This demonstration shall be performed:

1. Upon initial installation;
2. On an annual basis;

EXCEPTION TO SUBSECTION (3)(B)2.: The frequency of the tests may be reduced to every two years if a calibration and maintenance program is in place for the quantitative airflow monitor or alarm system.

3. After repairs or renovations of the facility, hood or the ventilation system in that part of the facility where the hood is located; or
4. After the addition of large equipment into the hood.

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(7) When perchloric acid is evaporated in laboratory-type hoods, the provisions of Section 5143(a)(4) shall apply. The materials of construction shall be ~~nonorganic (except for unplasticized polyvinyl chloride)~~ inert, smooth, and nonabsorbent. Organic polymers shall not be used except for inert fluoropolymers, such as polytetrafluoroethylene [PTFE] and tetrafluoroethylene-hexafluoropropylene copolymer [Teflon FEP], or similar nonreactive material. The hood and exhaust system shall be washed down with water for decontamination and prior to opening for maintenance.

EXCEPTION: Portable laboratory scrubbing apparatus for perchloric acid digestions may be used in lieu of the special requirements of this paragraph.

(f) Operator Qualifications. The employer shall ensure that employees who use laboratory-type hoods are trained to:

(1) Use the hood and its features safely;

(2) Determine the date of the last performance test and if the hood performance met the requirements of this section;

(3) Understand the general hood purpose, airflow characteristics, and potential for turbulent airflow and escape of hazardous substances from the hood; and,

(4) Know where the quantitative airflow monitor or alarm system is located on the hood and how it is used to indicate an inward airflow during hood operation.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

904.11 Commercial cooking systems. ~~The automatic fire extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Preengineered automatic dry and wet chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. Other types of automatic fire extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:~~

- ~~1. Carbon dioxide extinguishing systems, NFPA 12.~~
- ~~2. Automatic sprinkler systems, NFPA 13.~~
- ~~3. Foam water sprinkler system or foam water spray systems, NFPA 16.~~
- ~~4. Dry chemical extinguishing systems, NFPA 17.~~
- ~~5. Wet chemical extinguishing systems, NFPA 17A~~

Commercial cooking equipment that produce grease laden vapors shall be provided with a Type I Hood, in accordance with the California Mechanical Code, and an automatic fire extinguishing system that is listed and labeled for its intended use as follows:

1. Wet chemical extinguishing system, complying with UL 300. All existing dry chemical and wet chemical extinguishing systems shall comply with UL 300, no later than the second required servicing of the system following the effective date of this section or January 2008, which ever occurs first.
2. Carbon dioxide extinguishing systems.
3. Automatic fire sprinkler systems.

Exception Public schools kitchens, without deep-fat fryers, shall be upgraded to a UL 300 compliant system during state funded modernization projects that are under the jurisdiction of the Division of the State Architect

All systems shall be installed in accordance with the California Mechanical Code, appropriate adopted standards, their listing and the manufacturers' installation instructions.

Exception: Factory-built commercial cooking recirculating systems that are tested, *listed, labeled and installed* in accordance with UL 710B, ~~and listed, labeled and installed in accordance with Section 304.1 of the International Mechanical Code.~~

Authority Cited: Health and Safety Code Sections 13195.

References: Health and Safety Code Sections 13195.

Upcoming Bills of Interest

Cal-EPA Bills currently in the Legislature

AB 315(Hancock) School facilities: energy efficiency: design standards.

Summary: Would require the State Allocation Board, by July 1, 2007 , to adopt regulations to ensure that design standards for new school facilities constructed in whole or in part with state funds are in accordance with, among other requirements, the minimum design and construction criteria, as defined, in the specified Collaborative for High Performance Schools Best Practices Manual. The bill would also require the board to review other high performance building organizations' standards and any guidelines adopted pursuant to a specified executive order, and to adopt the standards that it deems appropriate. This bill contains other related provisions and other existing laws.

AB 1381(Nunez) School instructional gardens: pupil nutrition. Summary: Would align the program with the statewide environmental education program and would include an agricultural education component in the program . This bill would provide that educational agencies interested in participating in the Instructional School Gardens Program apply to the board for funding. This bill authorizes the board to establish an advisory group involving other agencies and groups with expertise in instructional school gardens, to provide technical assistance, resources, in-kind support, site visits, and other related forms of support. This bill contains other related provisions and other existing laws.

AB 1836(Daucher) Education facilities bond acts. Summary: Would enact the Kindergarten-University Public Education Facilities Bond Act of 2006, to become operative only if approved by the voters at a regularly scheduled election, and would provide for its submission to the voters at that election. The bill would also enact the Kindergarten and Grades 1 to 12 Public Education Facilities Bond Act of 2008, the Kindergarten-University Public Education Facilities Bond Act of 2010, the Kindergarten-University Public Education Facilities Bond Act of 2012, and the Kindergarten and Grades 1 to 12 Public Education Facilities Bond Act of 2014, to become operative only if approved by the voters at specified statewide elections, and would provide for the submission of those acts to the voters

AB 2824(Ruskin) Air pollution mapping: high-risk facilities: schools.

Summary: Would require each district, on or before January 1, 2008, to identify any potential high-risk facilities located within a 1,000-foot radius of each school within the district, and to provide to specified agencies a list of those high-risk facilities. The bill would require the district to work with specified agencies to ensure that high-risk facilities are operated in a manner that does not endanger the health and safety of school occupants, and would require the district to create maps identifying each school, and each high-risk facility located within a 1,000-foot radius of each school, that are located in the district. The bill would require each district to post the maps at the district office and make the maps available to school districts and the public.

The bill would, on or before January 1, 2008, require each state or local agency with jurisdiction over the regulation, permitting, inspection, or enforcement of the listed high-risk facilities to prioritize the order of inspection, permitting, and enforcement to issue permits, inspect, or enforce those facilities before other facilities. The bill would require each district to annually submit a specified report to the Legislature and the state board relating to permits. This bill contains other related provisions and other existing laws.

AB 2825(Ruskin) School sites: hazardous emissions and substances: environmental impact. Summary: Would revise those provisions to additionally require the identification of both existing and proposed facilities that emit hazardous air emissions or handle specified hazardous substances within that school district's authority, including, but not limited to, any agricultural operation that uses pesticides, and other any other business, industry, or facility within one-fourth of a mile of that proposed schoolsite. The bill would also revise the findings the school district is required to make, to instead, require the school district to find that either the existing or proposed facility or other pollution source is no fewer than 1000 feet of the proposed school site, and the school district is unable to locate an alternative site one-fourth of a mile or further from that facility or that the facility exists because of construction activities and after completion of the construction, the facility will no longer meet certain conditions, thereby imposing a stage-mandated local program by imposing new duties upon school districts . This bill contains other related provisions and other existing laws.

AB 2826(Ruskin) School facilities: site contamination. Summary: Would delete that exclusion relating to minor additions and would instead provide that, in the case of a project on an existing schoolsite, the project is not subject to the above provisions relating to the condition for receiving state funds pursuant to the Greene Act if the Department of Toxic Substances Control has reviewed a Phase I environmental assessment that was conducted on the site in the 10 years prior to the new project approval, unless new evidence of contamination has emerged since that prior assessment was conducted. This bill contains other related provisions and other existing laws.

AB 2834(Runner, Sharon) School facilities: contamination: Phase I environmental assessment. Summary: Would provide that a preliminary endangerment assessment is not required to be prepared if the Department of Toxic Substances Control concludes, after its review of a Phase I assessment, including an amended Phase I assessment, that the assessment adequately identifies the contamination and necessary remediation for any contaminant for which the department has made specified determinations. The bill would authorize a school district and the department to take action pursuant to those provisions using that Phase I environmental assessment in lieu of a preliminary endangerment assessment. This bill contains other existing laws.

SB 841(Hollingsworth) Fire protection: firebreaks.

Summary: Would consistent with any other applicable provision of law , authorize a state or local fire official, at his or her discretion, to permit an owner of property , or his or her agent , to construct a firebreak or implement appropriate vegetation management techniques, to ensure that defensible space is adequate for the protection of a hospital, adult residential care facility, school, aboveground storage tank, hazardous materials facility, or similar facility on the property . The bill would authorize the firebreak to be for a radius of up to 300 feet from the facility , or to the property line, whichever distance is shorter.

SCR 63(Florez) California school bus emissions reduction.

Summary: Would encourage the Public Utilities Commission work with the regulated utilities to consider developing, and possibly to develop, a program to retrofit diesel schoolbuses in the state to reduce particulate matter emissions, while not increasing nitrogen dioxide emissions, with a minimal increase in the utility rate.