

Farmingdale State College

Hazard Communication and Right to Know Program

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**Farmingdale
State College**
State University of New York

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- Appendix C: *Specific-Substance “Right to Know” Training: A Recommended Approach for Coming into Compliance with State Law*, State of New York Office of the Attorney General.
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Farmingdale State College

Hazard Communication and Right to Know Program

Section I: Introduction

Farmingdale State College (“the College”) is committed to providing a safe and healthy work environment for all of its employees. The federal Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS), 29 CFR 1910.1200, and the New York State “Right to Know” laws and regulations, 12 NYCRR Part 820 and Article 28 of the NYS Labor Law (see Appendix A), are based on a simple concept - that employees have both a need and a right to know the hazards and identities of the chemicals they may potentially be exposed to while at work.

As such, Farmingdale State College has developed a written Hazard Communication Program (“the Plan”) designed to ensure that the hazards of chemicals present in the workplace are evaluated and that the College’s employees receive relevant safety information and training about those hazards. Specifically, this Plan strives to:

- Safeguard the health and safety of all members of the Farmingdale State College community.
- Ensure compliance with local, state, and federal standards.
- Create guidelines for implementation and maintenance of this Plan.

The key elements of a written Hazard Communication Program included herein are:

- Hazard Determination
- Chemical Inventory
- Container Labeling
- Safety Data Sheets
- Employee Training

Additionally, as part of this Plan, the College has included information on workplace exposure to chemicals and exposure reporting requirements.

Section II: Applicability

The procedures contained in this Plan are applicable to all employees of the College who are exposed to or may be exposed to *hazardous chemicals* and *toxic substances*. Examples of hazardous chemicals and toxic substances can be found in:

- 29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA) (see Appendix B).
- *Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment*, American Conference of Governmental Industrial Hygienists (ACGIH) (latest edition).
- National Toxicology Program (NTP), *Annual Report on Carcinogens* (latest edition).
- International Agency for Research on Cancer (IARC), *Monographs* (latest editions).
- National Institute for Occupational Safety and Health (NIOSH) *Registry of Toxic Effects of Chemical Substances* (RTECS) (latest edition) (Applies to the NYS Right to Know Law only).

Portions of this Plan are applicable to suppliers of materials to the College (see Section VII: Container Labeling, and Section VIII: Safety Data Sheets [SDSs] for additional information) and to contractors or vendors hired to perform work at the College (see Section XII: Contractor Notification for additional information).

Section III: Responsibilities

The College's Environmental Health and Safety (EH&S) Officer is charged with providing directives, policies and procedures that each department chair or director is responsible for disseminating and complying with to ensure the safety and health of all students, faculty, staff, and visitors in that particular area. This includes the obligation and authority to prevent or stop any operations considered to be unsafe. The department head may delegate all or part of these responsibilities to a departmental safety coordinator. Ideally, this person will be a faculty member in an academic department, or a supervisor or director in an administrative department. However, such delegation in no way relieves the department chair or supervisor of overall responsibility in matters of departmental safety and health.

Copies of this Plan may be found in the Office of Environmental Health and Safety, Horton Hall Room 135, Division of Administration and Finance; and via web access for Environmental Health and Safety at Farmingdale State College (through Aries) at 'Hazard Communication and Right to Know Program.'

As a general rule of thumb though, employees with Internet access/access to Aries, can review the Plan at any time by visiting Environmental Health and Safety/Hazard Communication and Right to Know Program; departments are also encouraged to print and maintain their own copy in a central location; regulatory officials are free to review the Plan during normal business hours provided they are granted Aries access with associated authentication and

credentials; or, alternatively, a request can be made to the Environmental Health and Safety Officer to make arrangements to view a hard copy of the Plan.

Section IV. Definitions

Acute effects usually occur rapidly as a result of short-term exposures, and are of short duration.

Chronic effects generally occur as a result of long-term exposure, and are of long duration.

Hazardous chemical means any chemical which is a physical hazard or a health hazard.

Health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.

Types of Health Hazards and Meanings:

Carcinogens	A chemical is considered to be a carcinogen if: (a) It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or (b) It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or, (c) It is regulated by OSHA as a carcinogen.
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

	<p>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.</p> <p>(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.</p>
Highly toxic	<p>A chemical falling within any of the following categories:</p> <p>(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.</p> <p>(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.</p> <p>(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 2 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.</p>
Reproductive toxins	Chemicals which affect the reproductive capabilities including

Reproductive toxins (cont.)	chromosomal damage (mutations) and effects on fetuses (teratogenesis)
Irritants	A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 CFR 1500.41 for four hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A chemical is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.
Corrosives	A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the U.S. Department of Transportation in Appendix A to 49 CFR Part 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. The term shall not refer to action on inanimate surfaces.
Sensitizers	A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.
Hepatotoxins	Chemicals which produce liver damage
Nephrotoxins	Chemicals which produce kidney damage
Neurotoxins	Chemicals which produce their primary toxic effects on the nervous system
Agents which act on the blood or hematopoietic system	Decrease hemoglobin function; deprive the body tissues of oxygen
Agents which damage the lung	Chemicals which irritate or damage pulmonary tissue
Cutaneous hazards	Chemicals which affect the dermal layer of the body
Eye hazards	Chemicals which affect the eye or visual

Eye hazards (cont.)	capacity
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Physical hazard means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Types of Physical Hazards and Meanings

Combustible liquid	Any liquid having a flashpoint at or above 100° F (37.8° C), but below 200° F (93.3° C), except any mixture having components with flashpoints of 200° F (93.3° C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.
Compressed gas	A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70° F (21.1° C); or A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130° F (54.4° C) regardless of the pressure at 70° F (21.1° C); or A liquid having a vapor pressure exceeding 40 psi at 100° F (37.8° C) as determined by ASTM D-323-72.
Explosive	A chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.
Flammable	A chemical that falls into one of the following categories: (i) Aerosol, flammable (ii) Gas, flammable (iii) Liquid, flammable (iv) Solid, flammable. For example, Liquid, flammable means any liquid having a flashpoint below 100° F (37.8° C), except any mixture having components with flashpoints of 100° F (37.8° C), or higher, the total of which make up 99 percent or more of the total volume of the mixture.
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 has been replaced by an organic radical.
Oxidizer	A chemical other than a blasting agent or explosive as defined in §1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.
Pyrophoric	A chemical that will ignite spontaneously in air at a temperature of 130° F (54.4° C) or below.
Unstable (reactive)	A chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.
Water-reactive	A chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

For more detailed definitions, see 29 CFR 1910.1200 Appendix A, http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10100

Section V: Hazard Determination

Ways for determining whether chemicals or substances are hazardous can be done by examining the following:

- Labels and Markings (The Globally Harmonized System of Classification and Labelling of Chemicals [GHS] labels and associated pictograms, Department of Transportation [DOT] placards & markings, National Fire Protection Association [NFPA] diamond, Hazardous Materials Identification System [HMIS] labels, etc.)
- Safety Data Sheets
- Contact manufacturer or distributor

For more information on hazard determinations, see 29 CFR 1910.1200 Appendix B, http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10101

Section VI: Chemical Inventory

Various regulatory agencies require the College to maintain a complete, accurate and up-to-date inventory of its toxic and hazardous materials. Primarily though, inventories are essential to inform individuals which chemicals they may have the potential to be exposed to, further allowing them to better understand the associated hazards and risks of these chemicals.

Each department head or designee is responsible for ensuring that a chemical inventory list of the hazardous chemicals and toxic substances used, stored or otherwise kept in each laboratory or work area under his/her purview is created and maintained.

A good way to prepare a comprehensive inventory list is to survey your work area(s) to do a physical assessment, and purchasing records also may help. The broadest possible perspective should be taken when doing the survey. Considering all substances to be potentially toxic and hazardous simplifies the approach even though it may unnecessarily include a few materials that are essentially non-hazardous.

Inventories must be completed in a Microsoft Excel template available from the Environmental Health and Safety Officer, or one can be downloaded from our website via Aries at Environmental Health and Safety/Chemical Inventory Management.

Once a chemical inventory has been completed, the electronic file **MUST** be emailed to the Environmental Health and Safety Officer at ehs@farmingdale.edu.

Each chemical inventory list must be updated at least **annually**, or whenever there is a substantial change (i.e. a chemical is added or removed). After each annual update, and whenever there is a change made, a revised chemical inventory **MUST** be emailed to the Environmental Health and Safety Officer at ehs@farmingdale.edu and, where possible, the revised section or reason for change be highlighted, marked up, explained, etc. for ease of rectification.

Upon receipt by the Environmental Health and Safety Officer, the chemicals included on the spreadsheet will be added to the College's Chemical Inventory and Management System, MSDSonline, where all chemicals inventoried on Campus are listed (i.e. the "Master" Inventory). In addition, MSDSonline also provides access to associated Safety Data Sheets, identifies where these chemicals are stored and communicates pertinent health and safety information (among other features) aimed at better communicating the hazards and risks associated with the chemicals used and stored on Campus. To access MSDSonline, search (via Aries) Environmental Health and Safety/Chemical Inventory Management, or, Environmental Health and Safety/Safety Data Sheet (SDS) Management.

The HCS requires that employees be trained on the hazards of a chemical prior to its usage. This means each department head or designee must be up-to-date at all times on the chemicals being utilized in his/her workplace (hence the need for a current and accurate chemical inventory), and that a SDS be available in order to provide adequate training. **Therefore, each department must have procedures in place to control the selection and purchase of materials, and the acquisition and distribution of the SDSs PRIOR TO EMPLOYEE USAGE OF THE PRODUCT (see Section IX: Purchasing for additional information).** Preferably, whenever a new chemical (or chemicals) is received, the chemical inventory is updated to reflect the addition(s) of chemical(s) and the new, revised inventory is then emailed to the Environmental Health and Safety Officer at ehs@farmingdale.edu as noted above. In addition, the associated Safety Data Sheet (SDS) MUST be scanned and emailed to the Environmental Health and Safety Officer at ehs@farmingdale.edu, or, the SDS(s) can be faxed to the attention of the EH&S Officer at (934) 420-9173, to also include the specific product storage location, quantity and size.

Section VII: Container Labeling

Each department head or designee is responsible for labeling and maintaining labels for the hazardous chemicals and toxic substances used or stored in his/her department. The HCS requires chemical manufacturers, importers, and distributors to label their containers of hazardous chemicals prior to distribution. Therefore, each container coming into the College should already be labeled, tagged or marked with the following information:

- Identity of the hazardous chemical(s);
- Appropriate hazard warnings and pictograms; and
- Name and address of the chemical manufacturer, importer, or other responsible party.

When materials are transferred from a labeled container into other containers, each department head or designee is responsible for ensuring that each new container in his/her department is labeled, tagged or marked with the following information:

- Identity of the hazardous chemical(s) contained therein (full chemical names – no abbreviations or formulas); and
- Appropriate hazard warnings, words, or pictograms, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication

program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

- Any special storage conditions (i.e. refrigerate, keep dry, etc.).

The HCS addresses certain exemptions to this labeling requirement for in-house labels:

- **Individual Stationary Process Containers.** Alternative methods of labeling such as signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each work shift.
- **Portable Containers** into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer.

The HCS requires containers to be labeled. Pipes or piping systems are not considered to be containers for purposes of hazard communication. However, contents of such systems should be clearly identified. Moreover, employees must be informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas.

Section VIII: Safety Data Sheets (SDSs)

The HCS requires chemical manufacturers and importers to evaluate the hazards of the chemicals they produce or import. Using that information, they must then prepare more detailed technical bulletins called Safety Data Sheets, or SDSs.

Each department head or designee is responsible for maintaining a manufacturer-specific SDS for each hazardous or toxic substance used or stored in his/her work area(s), and for ensuring that they are readily accessible during each work shift to employees when they are in their work area(s). Alternatively, if the chemical(s) and SDS have been reported and submitted to the EH&S as described previously (see Section VI: Chemical Inventory), MSDSONline, the College's chemical inventory and SDS management service provider, can be used in lieu of maintaining hard copies of SDS's provided ALL employees with the potential for chemical exposure in any given area have full access (i.e. computer access, a general understanding of how to navigate the system, etc.) to the service. If not every employee has such access, hard copies must be made readily available as well.

Each department head or designee must also send copies of all SDSs to the Environmental Health and Safety Officer at ehs@farmingdale.edu, or, the SDS(s) can be faxed to the attention of the Environmental Health and Safety Officer at (934) 420-9173. Once received, the proper SDS will be “paired” with the associated chemical(s) within MSDSonline, and hard copies will be maintained on file.

SDSs should be reviewed prior to purchase to properly evaluate the hazards and risks associated with the substances being considered for use (see Section XI: Purchasing for additional information).

Each department head or designee is responsible for ensuring that an appropriate SDS is forwarded with each initial product shipment. SDSs are also requested for purchases made through the Research Foundation. If the SDS is not received with the initial shipment, it is the responsibility of the ordering entity (department head/designee) to contact the supplier (manufacturer/importer/distributor) and acquire an SDS, put a copy in the department’s SDS binder, file, or appropriate area, and/or send a copy of the SDS to the Environmental Health and Safety Officer as explained above.

In addition, each department head or designee is responsible for ensuring that SDSs that have been replaced with a newer version and/or SDSs of discontinued materials are retained in accordance with the General Retention and Disposition Schedule for NYS Government Records, and other applicable laws and regulations. The link to the health, safety and security category of the schedule is: http://www.archives.nysed.gov/a/records/mr_pub_genschedule_accessible.html#health

As a general rule, SDSs are retained for at least 40 years after superseded or obsolete.

Alternatively, if SDSs are/have been forwarded to the Office of Environmental Health and Safety, they will be maintained there for the required time period, and/or, will be “banked” in the MSDSonline service database, which will be backlogged/archived/saved at least semi-annually.

As noted previously, the Hazard Communication Standard requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS required new SDSs to be in a uniform format. As such, each SDS should contain at least the following sections:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15(29 CFR 1910.1200(g)(2)).

Previous versions of the SDSs (those received prior to June 1, 2015 not in the new SDS format), formally known as Material Safety Data Sheets, or MSDSs, should contain at least the following information:

1. The identity of the substance used on the manufacturer's label, and, generally speaking, the chemical and common name(s) of each hazardous chemical involved.

2. Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point).
3. The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity.
4. The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical.
5. The primary route(s) of entry.
6. The OSHA permissible exposure limit (PEL), ACGIH Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the MSDS, where available.

NOTE: Exposure limits for the NYS public sector are not the same as the federal OSHA PELs. NYS public sector exposure limits are listed in Part 800.5, Subchapter A, Chapter XI of Title 12 of the New York Codes, Rules and Regulations (cited as 12 NYCRR Part 800.5).

7. Whether the hazardous chemical is listed in the National Toxicology (NTP) Annual Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions), or by OSHA.
8. Any generally applicable precautions for safe handling and use which are known to the chemical manufacturer, importer or employer preparing the MSDS, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks.
9. Any generally applicable control measures which are known to the chemical manufacturer, importer or employer preparing the MSDS, such as appropriate engineering controls, work practices, or personal protective equipment.
10. Emergency and first-aid procedures.
11. The date of preparation of the MSDS or the last change to it.
12. The name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing

the MSDS, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Section IX: Employee Information and Training

New York State's "Right to Know" laws require public employers to institute an education and training program for employees "routinely exposed" to "toxic substances."

NYS "Right to Know" laws define "toxic substance" more broadly than the HCS. Under the provisions of the NYS "Right to Know" laws:

Toxic substance means any substance which is listed in the latest printed edition of the national institute for occupational safety and health registry of toxic effects of chemical substances or has yielded positive evidence of acute or chronic health hazards in human, animal or other biological testing.

Exposure or exposed means being subjected to a toxic substance through any actual or potential route of entry, including inhalation, ingestion, injection, skin contact or absorption, for any period of time, even if such exposure is accidental or if actual exposure is being prevented in whole or in part by the use of protective devices.

Routine exposure means exposure (as defined . . .) which can be expected to occur in the course of employment as part of an employee's job duties or incidental thereto.

For more information, see **Appendix A: Toxic Substances Information, Training and Education**, Part 820 of Title 12 of the Official Compilation of Codes, Rules, and Regulations of the State of New York and Article 28 of the New York State Labor Law, As Amended Effective August 26, 2004.

NYS "Right-to-Know" training has two basic components: a generic component, which applies to all employees who are entitled to "Right-to-Know" training, and a specific-substance component, which addresses the specific toxic substances to which the trainees are routinely exposed.

Generic Training

Due to the varied nature of activities at the College, it is presumed that all employees could possibly use or be exposed to a chemical or product that meets the regulatory definition of "hazardous" and/or "toxic." Therefore, generic training sessions addressing the federal OSHA Hazard Communication Standard, 29 CFR 1910.1200, and the NYS "Right to Know" laws, 12 NYCRR Part 820 and Article 28 of the NYS Labor Law, will be offered prior to or at the time of initial assignment as part of new hire orientation, and at least annually thereafter, to

ensure that all new employees receive the generic training. Generic sessions will be conducted by the Environmental Health and Safety Officer. Generic sessions may include video presentations, oral descriptions, handouts, or other methods of conveyance. Interactive websites may also be used to facilitate the distribution of this information. Records of generic training sessions will be maintained by the Office of Environmental Health and Safety.

The information conveyed to the employee presented at this generic training will include (but is not limited to) information regarding:

- OSHA's Hazard Communication Standard (HCS)
- Product labels and safety data sheets
- Physical and health risks of hazardous materials
- Hazard determinations
- Employee rights guaranteed by the NYS "Right to Know" laws
- How to read the information presented in SDSs
- How personnel protective equipment (PPE) could be used to protect against certain hazards

Additionally, the information conveyed to employees at generic training sessions explains basic concepts that are common to many toxic substances and informs the trainees of many of their rights under the "Right-to-Know" laws. Among other things, the generic information includes:

1. Routes by which toxic substances enter the body;
2. Target organs of various toxins, and how toxic substances reach such organs;
3. The retention and accumulation of toxic substances in the body;
4. The concepts of synergistic, additive and antagonistic interactions between substances whereby their toxic effects may be multiplied or otherwise increased;
5. The concept of a biological threshold level of exposure for the effects of some toxic substances and the absence of any threshold exposure level for other toxic substances, such as chemical carcinogenicity;
6. The inability of the body to reverse some toxic effects; and

7. The trainee's right to file complaints about "Right to Know" training and/or recordkeeping with:

The New York State Attorney General, Labor Bureau, 120 Broadway, 26th Floor, New York, NY 10271, telephone (212) 416-8700, and/or

The New York State Department of Labor, Public Employee Safety and Health Bureau, 400 Oak Street, Suite 101, Garden City, NY 11530, telephone (516) 228-3970

In addition, the generic portion of "Right to Know" training shall also include all of the generic information described as part of the required training in Article 28 of the New York State Labor Law and Part 820, Subchapter A, Chapter XI of Title 12 of the New York Codes, Rules, and Regulations.

Specific-Substance Training

After the "Subpart Z" substances are identified for each employee as outlined above, then, in conjunction/collaboration with the department head or designee, the Environmental Health and Safety Officer will determine if the employee is routinely exposed to other toxic substances in the workplace. Since "toxic substances," as defined above, include more substances than Subpart Z substances, Hazard Communication and "Right to Know" training will not be complete until employees have received additional information related to the toxic substances at their specific worksite.

To facilitate, attached as **Appendix C** is a document called *Specific-Substance "Right to Know" Training: A Recommended Approach for Coming Into Compliance with State Law*, STATE OF NEW YORK OFFICE OF THE ATTORNEY GENERAL.

Each department head or designee is responsible for reviewing Appendix C for important information to assist them in fulfilling "specific substance" training.

Each department head or designee is responsible for maintaining a written record of specific-substance training given to employees. This record shall describe the training, the date or dates on which it was given, the names of the employees in attendance at each session, and the person(s) conducting the training. Copies of these training records must be furnished to the Office of Environmental Health and Safety upon completion.

As to each specific toxic substance or appropriate group of substances, the specific-substance training includes at least the following information:

1. the **location** of the toxic substance in the trainee's individual workplace environment;
2. the toxic substance's **properties**;
3. the **name** or names of the toxic substance, including the generic or chemical name; the trade name, and any other commonly used name;
4. the acute and chronic **effects of exposure** at hazardous levels;
5. the **symptoms** of effects of exposure at hazardous levels;
6. the potential for **flammability, explosion and reactivity** of the substance;
7. appropriate **emergency treatment**;
8. proper **conditions for safe use and exposure** to the toxic substance, including the use and functioning of **personal protective equipment**, in both ordinary and special circumstances;
9. the use and functioning of appropriate **fire-fighting equipment**;
10. the **appropriate procedures for cleanup** of leaks and spills of the toxic substance (including the use and functioning of clean-up equipment, if the trainee is the person who is responsible for cleaning up leaks and spills of the toxic substance).

In addition to individualized or departmental training provided to meet the requirements of "specific substance" training, the Office of Environmental Health and Safety will offer training on specific hazards/hazard classes throughout the course of each year. Please note though, it is incumbent upon each Department Chair, Supervisor or designee that every employee who is to work with or use a new chemical, chemical product or hazard class (i.e. flammable, corrosive, reactive, toxic, etc.) where there is a potential for routine exposure, and is one that they have not been trained on before, is trained **prior** to working with it; therefore, employee(s) can either wait to be trained by the EH&S Officer before working with a new hazardous chemical or hazard class where there is routine exposure, or, can be trained at the departmental level and attend a class offered by EH&S to supplement that training at a later date. Alternatively, employees can be asked to not work with such chemicals until they receive proper training by EH&S when training is made available.

To view the course listing(s) available, please go to (via Aries), Environmental Health and Safety/Training.

Grouping Toxic Substances

If a trainee is routinely exposed to a **very large number** of toxic substances so that training on each specific substance is highly impractical and would undercut the effectiveness of the training as a whole, then the toxic substances may be grouped for training purposes, provided the substances are sufficiently similar. Among the considerations in determining whether toxic substances may be grouped in such situations are whether:

- the toxic substances in the group pose the same type of hazard,
- use of the same personal protective equipment is required for all of the substances in the group,
- the procedures that the trainee must follow in case of leaks or spills are the same, and
- the procedures that the trainee must follow in an emergency are the same.

Use of Online Training

Online training may be used as a partial source for coming into compliance with State Law. For example, the NYS Governor's Office of Employee Relations (GOER) has developed an online training course that provides information employees need to know concerning the HCS and the NYS Right to Know Law.

However, as per the guide in **Appendix C**, the GOER online training omits some of the information that must be included in "Right to Know" training, such as concepts in toxicology. Another requirement is that training must include an oral explanation to accompany any written material. Each department head or designee choosing to use the GOER online training for employees in his/her department is responsible for reviewing the guide for additional requirements.

Employees choosing to take the GOER online training course must finish a quiz and complete a "HazCom/Right-to-Know Training Confirmation Form." The form, which is signed by the employee and the supervisor, is verification that the employee has received the required workplace-specific information part of this training. The department head or designee is responsible for maintaining a copy of the completed paperwork and for furnishing a copy to the Office of Environmental Health and Safety.

Non-routine Tasks

These tasks are those which are not performed on a routine basis and which may involve contact with a hazardous or toxic substance. Before employees are required to perform non-routine tasks, the department head or designee, in conjunction/collaboration with the Environmental Health and Safety Officer, will

determine what hazards are present or may be created by the task. The department head, designee or the Environmental Health and Safety Officer (determined by the nature of the exposure risk, the hazardous or toxic substance in question, and the level of expertise and understanding of such substance between all parties), is responsible for communicating this information to his/her employees, and must provide the employees with any required special equipment, such as portable ventilation systems and/or personal protective equipment (PPE) and instruction on its proper use.

Additional Requirements

New York State's "Right to Know" laws further expand the HCS by requiring employers to have "Right to Know" informational posters throughout the workplace. Each department head or designee is responsible for ensuring that legible and conspicuous signs informing employees of their right to information regarding toxic substances found in the workplace are posted conspicuously on employee bulletin boards or in other similar places, so as to ensure that the signs will be readily seen by employees.

There are two signs required to be posted in public employer work sites, each provided as **Appendix D**. Additionally, links to each of these signs are as follows:

- The link to the "Labor Law Information Relating to Public Employees Job Safety and Health Protection" sign (available from the NYS Department of Labor) is: <https://dol.ny.gov/system/files/documents/2021/03/p208.pdf>
- The link to the "You Have a Right to Know!" sign (available from the NYS Department of Health) is:* http://www.health.state.ny.us/environmental/workplace/right_to_know/docs/rtk.pdf

**Please note that the "You Have a Right to Know!" sign posted around campus has been customized for Farmingdale State College; therefore, before posting this sign, please consult the Environmental Health and Safety Officer to ensure you're posting the most appropriate version.*

Additionally, employers are responsible for providing the required training at least annually, keeping in consideration the fact that employees have rights, such as the right to refuse to work with a toxic substance if a written request for information is not responded to within 72 hours, excluding weekends and public holidays, and can do so without the fear of discrimination. Complaints may be made to either the NYS Department of Labor or the Attorney General of the State of New York.

Section X: Exposure Reporting and Record Retention

Each department head or designee is responsible for providing to the Environmental Health and Safety Officer the names of employees who handle or use toxic and hazardous substances included in “Subpart Z” found at Title 29 of the Code of Federal Regulations (CFR) sections 1910.1000 through 1910.1450 (see Appendix B) to the EH&S Officer, detailing which “Subpart Z” substance(s) are handled or used by which employee(s), and for how long (provide a date range). These records, often referred to as **Section 879 Records** because the requirement is found at Section 879 of the NYS Labor Law, must be kept for 40 years and will be maintained by the Office of Environmental Health and Safety once submitted.

Pursuant to section 879 of the NYS Labor Law:

Employers shall keep a record of the name . . . of every employee who handles or uses a substance or substances included in section nineteen hundred ten of the federal occupational safety and health regulations, subparagraph z and which such substance or substances was or were handled or used by which employee. Such record shall be made available to each affected employee, former employee, designated physician or representative and the commissioner of health, upon request, for examination and copying. Such record shall be kept for forty years. Such records shall be sent to the department of health if the employer's establishment ceases to operate within the state of New York.

One approach to meeting the Section 879 Records requirement that might be practical and workable is to assemble an annual file with the names of each employee handling or using each product or chemical found in “Subpart Z”, and maintain this information in addition to the inventory and SDSs. Initially and any time this file is updated, it should be sent to the Environmental Health and Safety Officer by way of email, ehs@farmingdale.edu, faxed to (934) 420-9173, or inter-office mailed to the Environmental Health and Safety Officer, Horton Hall, Rm. 135.

Section XI: Purchasing

Each department at the College has personnel authorized to submit a purchase requisition. Only department heads are authorized to approve the requisition.

It is the responsibility of the requisitioner to first determine if the product(s) being ordered are hazardous or toxic materials. The Environmental Health and Safety Officer at Farmingdale State College may be consulted to assist in making this determination, as needed.

It is also the responsibility of the entity ordering hazardous or toxic material to ensure the following before purchasing:

- Proper storage facilities are available to store the requested amount of materials. Look at proper segregation of chemicals, potential reactions with other materials, requirement for flammable storage lockers, proper containers, secondary containment requirements, labeling, and any other special requirements such as those mandated by fire safety regulations, the U. S. EPA, and OSHA/PESH. Proper storage must be available to support the maximum amount of material which may be present. Materials in excess of the amount which can be properly stored will be properly removed from the College.
- Safety requirements for using the materials must be evaluated, including proper safety equipment such as fume hoods, ventilation requirements, personnel protective equipment (PPE) and special containers.
- Training requirements for personnel must be accomplished prior to utilization.
- Any requirements for special programs such as medical surveillance requirements must be established and implemented prior to usage of the material.
- Requirements for the correct storage and disposal of any wastes generated must be established prior to generating the waste.

Therefore, SDSs should be obtained and reviewed prior to product procurement to properly evaluate the above requirements.

Purchasing practices and those responsible for implementing such procedures shall include requests for SDSs for all hazardous or toxic materials obtained from suppliers.

Please indicate on the purchase requisition that *“All procurements must be accompanied, where appropriate, by the Safety Data Sheet(s) (SDSs) that meet the requirement of the Hazard Communication Standard. No hazardous or toxic materials will be accepted or used until the proper SDSs have been received from the supplier (manufacturer, importer or distributor).”*

Purchase, whenever possible, the least hazardous material available.

It is incumbent upon all personnel at the College to not only use, store, handle, and dispose of all hazardous materials appropriately, but to first assess whether a less hazardous or even non-hazardous substitute exists. As a general rule, when ordering new products, choose the least hazardous or toxic material.

Purchase hazardous materials in the smallest quantities needed.

The basic concept underlying hazardous materials legislation and regulation is to reduce risk by minimizing inventory on hand. The elimination of hazardous materials involves not only procuring the least toxic substance, but also reducing stock. Cost savings achieved by bulk purchasing practices are more than lost by the costs associated with storing hazardous or toxic materials properly, or providing for their proper disposal due to outdated products.

In addition, procurement employees need to be familiar with environmentally preferable purchasing (EPP) which is the act of purchasing products/services whose environmental impacts have been considered and found to be less damaging to the environment and human health when compared to competing products/services. EPP is often referred to as “green purchasing” and procurement employees need to be familiar with applicable laws and regulations.

Section XII: Contractor Notification

The College will provide hazard information to on-site contractors who have employees that may be exposed to College-owned hazardous chemicals and toxic substances while working at the College. In addition, the contractor must also provide hazard information to the College when that contractor uses or stores hazardous/toxic materials on-site. This function will be coordinated by the Physical Plant who will notify the Environmental Health and Safety Officer of any exchange. The exchange of information will occur **before starting work** on the project, and will include, but is not limited to, SDSs, precautionary methods needed to protect workers and the labeling system.

Contractors must also provide information on work they may perform that may create potentially hazardous situations for campus employees. This information should identify the work activity, its possible dates of occurrence, and preventive measures that will be employed by the contractor to control any potential hazards to campus employees and students and minimize impact on campus operations. Contractor emergency contacts should also be identified. The roles campus and local emergency response personnel would be expected to fulfill during any emergency must also be discussed.

Should other campus offices enter into contracts for construction or other work to be performed on the campus, that office is responsible for conveyance of information on hazardous/toxic materials and/or conditions both to and from the contractor.

Section XIII. Conclusion

It is the responsibility of every College employee to become knowledgeable in the hazards of their workplace. It is also the responsibility of every College employee

to request information from supervisory personnel on any product they feel may present a potential health and safety problem if used.

APPENDIX A

**Toxic Substances
Information, Training, and Education**

Part 820 of Title 12 of the Official Compilation of Codes, Rules, and Regulations of the
state of New York (Cited as NYCRR 820)

and

Article 28 of the New York State Labor Law



As Amended
Effective August 26, 2004

Article 28
Toxic Substances

Sec.

- 875. Definitions.
- 876. Notice requirements.
- 877. Trade secrets.
- 878. Employee education and training.
- 879. Records.
- 280. Employees' rights.
- 881. Powers of the industrial commissioner.
- 882. Penalties.
- 883. Separability

§ 875. Definitions

When used in this article:

1. "Employer" means any individual, partnership, corporation or association engaged in a business who has employees including the state and its political subdivisions. The term "employer" does not include the employment of domestic workers or casual laborers employed at the place of residence of his or her employer.
2. "Toxic substance" means any substance which is listed in the latest printed edition of the national institute for occupational safety and health registry of toxic effects of chemical substances or has yielded positive evidence of acute or chronic health hazards in human, animal or other biological testing.
3. "Workplace" means any location away from the home, permanent or temporary, where any employee performs any work-related duty in the course of his employment.

(Added L.1980, c.551, §3.)

§ 876. Notice requirements

Notice to employees and their representatives regarding toxic substances.

1. Every employer shall post a sign in every workplace at the location or locations where notices to employees are normally posted, to inform employees that they have a right to information from their employer regarding the toxic substances found in the workplace and a description of the toxic effects of these substances and the circumstances under which these effects are produced.
2. Until such time as the commissioner in consultation with the commissioner of health determines that there is a federal program in effect which will guarantee substantially similar protection to employees, each employer shall make available in writing to each employee, and if so requested their representatives, information relating to all toxic effects and the circumstances under which these effects are produced from the toxic substances to which the employee may be exposed in the course and scope of employment.
3. It shall be the responsibility of the employer to obtain information relating to toxic substances from: the manufacturer; the New York state department of health; the Federal Environmental Protection Agency's Chemical Substances Information Network; and the Health Hazard Evaluation Program of the National Institute of Occupational Safety and Health.
4. Subject to the limitations set forth in section eight hundred seventy-seven of this article, any manufacturer, importer, producer or formulator of any toxic substance shipped or transported or sold for any use within the state must provide, upon request, the following information:
 - (a) the name or names of the toxic substance, including the generic or chemical name;
 - (b) the trade name of the chemical and any other commonly used name;
 - (c) the level at which exposure to the substance is determined to be hazardous, if known;

- (d) the acute and chronic effects of exposure at hazardous levels;
- (e) the symptoms of such effects;
- (l) the potential for flammability, explosion and reactivity of such substance;
- (g) appropriate emergency treatment;
- (h) proper conditions for safe use and exposure to such toxic substance;
- (i) procedures for cleanup of leaks and spills of such toxic substance.

5. Whenever an employer receives new information concerning those subjects listed in subdivision four of this section, whether from the manufacturer, importer; producer or formulator or from state or federal agencies, such employer must make such new information available to employees and if so requested, their representatives upon receipt of same.

6. Each employer shall make available to every employee the informational leaflets that he receives about the toxic substances information program pursuant to section forty-eight hundred four of the public health law.

7. Upon receipt of a request for information the employer must provide the requested information in writing within seventy-two hours, excluding weekends and public holidays. If the information is not provided, the employee may not be required to work with the toxic substance until the information is made available,

8. Provision of information to an employee shall not in any way affect the liability of an employer with regard to the health and safety of an employee or other persons exposed to toxic substances, nor shall it affect the employer's responsibility to take any action to prevent the occurrence of occupational disease as required under any other provision of law. Further, it shall not affect any other duty or responsibility of a manufacturer, producer, or formulator to warn ultimate users of a toxic substance pursuant to any other provisions of law.

(Added L.1980, c. 551, § 3.)

§ 877. Trade secrets

1. When a manufacturer, producer, formulator or employer considers the identity of or other information concerning a toxic chemical substance to be a protectable trade secret or a proprietary process whose disclosure would compromise his competitive advantage and when other applicable provisions of the health law are satisfied, he may register this information as secret with the commissioner of health.

2. Manufacturers, producers, formulators and employers who so register a substance, process or product with the commissioner of health must inform in writing, employers who request information relating to such substance, and employees and their representatives, that such substance or process constitutes a registered trade secret or proprietary process and that information regarding the toxic effects of such substance is only available without identifying information and must provide such information without identifying data.

3. No officer, employee or agent of any state or municipal department, agency, commission or authority shall disclose to anyone in any manner any record or portions thereof protected pursuant to this article and which are within his custody or knowledge for so long as such record or portions thereof shall be so exempted or until a final judicial denial of such exemption is rendered. Any person who violates any provision of this subdivision may be fined, suspended or removed from office or employment in the manner provided by law.

(Added L.1980, c. 551, § 3.)

§ 878. Employee education and training

Every employer shall institute an education and training program for employees routinely exposed to toxic substances.

2. The education and training program shall commence prior to initial assignment and shall be repeated at least annually thereafter. Additional instruction must be provided whenever the potential for exposure to toxic substances is altered.

3. The education and training program shall include, but may not be limited to, the following:

- (a) the location of toxic substances to which the employee may be exposed;
- (b) the properties of toxic substances to which employees may be exposed;
- (c) the name or names of the toxic substance, including the generic or chemical name;
- (d) the trade name of the chemical and any other commonly used name;
- (e) the acute and chronic effects of exposure at hazardous levels;
- (f) the symptoms of effects of exposure at hazardous levels;
- (g) the potential for flammability, explosion and reactivity of such substance;
- (h) appropriate emergency treatment;
- (i) proper conditions for safe use and exposure to such toxic substance;
- (j) procedures for cleanup of leaks and spills of such toxic substance.

(Added L.1980, c. 551, § 3.)

§ 879. Records

Employers shall keep a record of the name, address and social security number of every employee who handles or uses a substance or substances included in section nineteen hundred ten of the federal occupational safety and health regulations, subparagraph z and which such substance or substances was or were handled or used by which employee. Such record shall be made available to each affected employee, former employee, designated physician or representative and the commissioner of health, upon request, for examination and copying. Such record shall be kept for forty years. Such records shall be sent to the department of health if the employer's establishment ceases to operate within the state of New York.

(Added L.1980, c. 551, § 3; amended L.1985, c. 577, § 1; L.2003. c., 411, § 1, eff. Aug. 26, 2004)

§ 880. Employees' rights

1. Employees or their representatives may request in writing from employers and shall receive all information relating to toxic substances set forth in subdivision three of section eight hundred seventy-eight of this article.

2. If an employee has requested information about a substance pursuant to subdivision seven of section eight hundred seventy-six of this article, and has not received information within the time allowed therein, the employee may not be required to work with such substance.

3. No employer shall discharge, or cause to be discharged, or otherwise discipline, or in any manner discriminate against any employee because such employee has filed any complaint or has instituted, or caused to be instituted, any proceeding under or related to the provisions of this article, or has testified, or is about to testify, in any such proceeding, or because of the exercise of any right afforded pursuant to the provisions of this article on such employee's behalf or on the behalf of others, nor shall any pay, position, seniority, or other benefits be lost for exercise of any right provided by this article.

4. Any employee who believes that he or she has been discharged, disciplined, or otherwise discriminated against by any person in violation of this section may, within thirty days after such violation occurs or thirty days after the employee first obtains knowledge that a violation did occur, file a complaint with the industrial commissioner¹ alleging such discrimination. Upon receipt of such complaint, the industrial commissioner shall cause such investigation to be made as he deems appropriate. If upon such investigation, the industrial commissioner determines that the provisions of this section have been violated, he shall request the attorney general to bring an action in supreme court against the person or

persons alleged to have violated the provisions of this section. In any such action the supreme court shall have jurisdiction to restrain violations of this section and to order all appropriate relief, including but not limited to civil penalties as set forth in section eight hundred eighty-two of this article, hiring, rehiring or reinstatement of the employee in employment together with the payment of any compensation otherwise actually lost as a result of such violation.

5. Within ninety days of the receipt of a complaint filed under this section the industrial commissioner shall notify the complainant and his representative by registered mail of his determination.

6. Any waiver by an employee or applicant for employment of the benefits or requirements of this article shall be against public policy and be null and void.

7. Any employer's request or requirement that an employee waive any rights under this article as a condition of employment shall constitute an act of discrimination.

(Added L.1980, c. 551, § 3.)

¹ Now commissioner of labor

§ 881. Powers of the industrial commissioner¹

The industrial commissioner may promulgate such regulations as he shall consider necessary and proper to effectuate the purposes and provisions of this article.

(Added L.1980, c. 551, § 3.)

¹ Now commissioner of labor.

§ 882. Penalties

1. Civil penalty. Any employer who fails to comply with the provisions of this article shall be liable for a civil penalty not to exceed ten thousand dollars in addition to any other damages for which an employer maybe liable pursuant to any other provision of law. The attorney general may bring an action in the supreme court against any person or persons alleged to have violated the provisions of this article. In any such action the supreme court shall have jurisdiction to restrain violations of this article and to levy appropriate penalties. Any penalty assessed for the violation of any of the provisions of this article shall be payable to the commissioner of health to be utilized for the purposes of environmental health pursuant to section forty-eight hundred two of the public health law.

2. Criminal penalty. Any person who willfully and intentionally violates the provisions of this article is guilty of a misdemeanor and upon conviction shall be punished, for a first offense, by a fine of not more than five hundred dollars, or by imprisonment for not more than thirty days or by both such fine and imprisonment; for a subsequent offense by a fine of not more than one thousand dollars, or by imprisonment for not more than ninety days, or by both such fine and imprisonment.

(Added L.1980,c. 551, § 3.)

§ 883. Separability

If any section, clause or provision of this article shall be unconstitutional or be ineffective in whole or in part, to the extent that it is not unconstitutional or ineffective, it shall be valid and effective and no other section, clause or provision shall on account thereof be deemed invalid or ineffective.

(Added L.1980, c. 551, § 3.)

Part 820
Toxic Substances-Information, Training and Education
(Statutory Authority: Labor Law. §§ 21[11] 881)

Sec.

- 820.1 Purpose
- 820.2 Definitions
- 820.3 Notice and information requirements
- 820.4 Training
- 820.5 General recordkeeping responsibilities
- 820.6 Information and assistance
- 820.7 Separability

Part (§§ 820.1 - 820.7) filed April 13, 1987 eff. June 1, 1987.

§ 820.1 Purpose.

This Part implements Labor Law, section 881 which provides for promulgation of regulations to effectuate the purposes and provisions of Labor Law, article 28, which guarantees employee' rights to information, training and education regarding toxic substances in the workplace.

Sec. filed April 13, 1987 eff. June 1, 1987.

§ 820.2 Definitions.

As used in Labor Law, article 28, and these regulations:

(a) *chemical name* means the scientific designation of a substance in accordance with the nomenclature developed by the International Union of Pure and Applied Chemistry or by the Chemical Abstracts Service.

(b) *Employee* includes all regular and temporary, full-time and part-time employees, former employees employed after the effective date of Labor Law, article 28, and employees on lay-off and leaves of absence for any reason, but does not include domestic workers or casual laborers employed at their employers' place of residence.

(c) *Exposure* or *exposed* means being subjected to a toxic substance through any actual or potential route of entry, including inhalation, ingestion, injection, skin contact or absorption, for any period of time, even if such exposure is accidental or if actual exposure is being prevented in whole or in part by the use of protective devices.

(d) *Hazardous* means causing, potentially causing, or contributing to an acute or chronic illness or any other risk to health or life.

(e) *Routine exposure* means exposure (as defined in subdivision [c] of this section) which can be expected to occur in the course of employment as part of an employee's job duties or incidental thereto.

(f) *Trade name* means any designation or identification of a chemical or combination of chemicals, such as a common name, code name, code number or brand name, used to identify a chemical or combination of chemicals other than by their chemical names.

(g) *Substantial number* means 10 employees or 20 percent of the total number of employees, whichever number is lower.

(h) As used in these regulations, the terms *employer*, *toxic substance* and *workplace* have the same meaning as provided in Labor Law, section 875.

Sec. filed April 13, 1987 eff. June 1, 1987.

§ 820.3 Notice and information requirements.

(a) Where any provision of Labor Law, article 28 or these regulations requires an employer to provide

employees with notice or information relating to a toxic substance, said notice or information need not be provided to a former employee employed after the effective date of Labor Law, article 28, or an employee on indefinite lay-off if the toxic substance was not introduced into the workplace until after the employee ceased working for the employer at that workplace. However, if a former employee employed after the effective date of Labor Law, article 28, or an employee on indefinite lay-off requests information pursuant to Labor Law, sections 876(7) and 880(1), about a toxic substance that was not present in the workplace at any time that the employee was employed there, then the employer shall so advise the employee in writing.

(b) The sign required by Labor Law, section 876(1), shall conform substantially to the dimensions, format and type size of those produced by or available from the New York State Department of Health, or shall otherwise be legible and conspicuous, and shall be posted conspicuously on employee bulletin boards or in other similar places, so as to ensure that the signs will be readily seen by employees. If a substantial number of the employees in the workplace speak a language other than English as their primary language and cannot understand a sign in English, then a sign must be posted in that language or languages as well as in English.

(c) The information required to be made available to employees and their representatives under Labor Law, sections 876 and 880, shall be communicated in a manner comprehensible to the employees to whom it is directed, shall be current, and must be updated in connection with the annual training required by Labor Law, section 878. The employer shall advise the employees or their representatives of the source(s) consulted in order to obtain this information. If a substantial number of the employees speak a language other than English as their primary language, and cannot understand this information in English, and any of this information is available in such other language, then the employer shall communicate such information to the employees in that language as well as in English.

(d) The information required to be made available to employees and their representatives under Labor Law, section 876, includes information about any toxic substance known to be present in a mixture, provided that either:

(1) the substance comprises, as an intentional ingredient or as an impurity, one percent or more by weight of the mixture; or

(2) even if the substance is present only in trace amounts in the mixture, the toxic properties of the substance are such that the mixture may be hazardous upon exposure because of the presence of the substance. An example of this situation would be the presence of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin in the herbicide 2, 4, 5-T.

(e) The information required to be made available to employees and their representatives under Labor Law, section 876(2), shall be maintained in a place readily accessible to employees.

(f) Copies of the information required to be made available to employees and their representatives under Labor Law, section 876(2), shall be provided to them upon request and without charge or condition, unless:

(1) the number of pages encompassed within any one request is greater than 200, in which case the employer shall have the option of charging the actual cost of copying the information in excess of 200 pages or permitting examination of any pages in excess of 200 during regular working hours, with no loss of pay, in a location convenient to the job site of the requestor or, if the requestor is an employee representative, the employees he or she represents; or

(2) the information requested has been supplied in written form to the requestor within a one-year period prior to the request, in which case the employer may either:

(i) loan the information to the requestor; or

(ii) make the information available for inspection or copying in a location convenient to the job site of the requestor or, if the requestor is an employee representative, the employees he or she represents, but need not do so during regular working hours or without loss of pay to the requestor.

(g) Where an employee or a representative of one or more employees has not received information

required to be made available within the time required by Labor Law, section 876(7), the employee(s) may not be required to handle, use or remain in risk of exposure to the toxic substance until the information is provided by the employer.

(h) (1) If information is requested pursuant to Labor Law, section 876(7) or section 880(1), about a substance which is neither a toxic substance nor comprised of any toxic substance, or with regard to which no information is available, then the employer shall respond in writing, state that the substance is not toxic or that no information about the substance is available, and identify the source(s) upon which such statement is based.

(2) An employer may not state that a substance is not toxic or that no information about the substance is available without first:

(i) obtaining a material safety data sheet ("MSDS") or chemical data sheet for that substance;

(ii) obtaining a fact sheet about that substance from the New York State Department of Health; or

(iii) consulting the sources listed in Labor Law, section 876(3).

(i) (1) An employer may comply with the requirements of Labor Law, sections 876(7) and 880(1), and these regulations by:

(i) describing the location of each toxic substance in the workplace;

(ii) making available an MSDS or a chemical data sheet prepared by the New York State Department of Health for each such toxic substance, provided that the MSDS or chemical data sheet contains all of the information required by Labor Law, article 28, and these regulations; and

(iii) advising the employee(s) or employee representative who requested the information that future research may render the information obsolete or incomplete.

(2) If an MSDS or chemical data sheet provided by an employer does not contain all of the information required by Labor Law, article 28, and these regulations, then the employer shall provide the required supplemental information by consulting the sources listed in Labor Law, section 876(3).

(j) Whenever an employer receives new information about any toxic substance in the workplace concerning those subjects listed in Labor Law, section 876(4), it shall upon receipt thereof provide employees and, if so requested, their representatives with such information.

Sec. filed April 13, 1987 eff. June 1, 1987.

§ 820.4 Training.

(a) The education and training program required by Labor Law, Section 878, need not be provided to a former employee or an employee on leave or lay-off unless or until such employee returns to work.

(b) Employees are entitled to the education and training required by Labor Law, section 878, if they are routinely exposed to any toxic substance as "routine exposure" is defined in section 820.2(e) of this Part.

(c) Time, location and manner of training. (1) The education and training program required by Labor Law, section 878, must be provided by qualified trainers during employees' regular working hours, with no loss of pay, in a location convenient to the job site of the employee(s) receiving such training.

(2) The education and training program required by Labor Law, section 878, must be tailored to the individual workplace environment and must include an oral explanation to accompany any written material. If a substantial number of the employees in any particular education and training group speak a particular language other than English as their primary language and cannot comprehend an English-language education and training program, the education and training program must be provided to such employees in that language as well as in English.

(d) Substantive information to be provided. The information required to be provided to employees by

Labor Law, section 878(3)(a)-(j) includes:

(1) such introductory material as is necessary for employees to understand the information provided pursuant to Labor Law, section 878(3)(a)-(j), including but not limited to:

- (i) routes by which toxic substances enter the body;
- (ii) target organs of various toxins, and how toxic substances reach such organs;
- (iii) the retention and accumulation of toxic substances in the body;
- (iv) the concept of synergistic, additive and antagonistic interactions between substances whereby their toxic effects may be multiplied or otherwise increased;

(v) the concept of a biological threshold level of exposure for the effects of some toxic substances and the absence of any threshold exposure level for other toxic substances, such as chemical carcinogenicity; and

(vi) the inability of the body to reverse some toxic effects.

(2) information about any toxic substance known to be present in a mixture, provided that either:

(i) the substance comprises, as an intentional ingredient or as an impurity, one percent or more by weight of the mixture; or

(ii) even if the substance is present only in trace amounts in the mixture, the toxic properties of the substance are such that the mixture may be hazardous upon exposure because of the presence of the substance. An example of this situation would be the presence of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin in the herbicide 2, 4, 5-T;

(3) any Federal, State and local occupational safety and health laws, ordinances, regulations, or other requirements or standards for the handling and use of any toxic substance found in the employees' workplace;

(4) how to read an MSDS or chemical data sheet;

(5) the use and functioning of cleanup, firefighting and personal protective equipment, in both ordinary and special use conditions, and any workplace policy for when such equipment is to be used; and

(6) the sources from which employees may obtain further information concerning the toxic substances in their workplace, the hazardous consequences of such substances, and the available protective measures, including the addresses and telephone numbers of the nearest offices of the agencies listed in Labor Law, section 876(3).

(e) Updating the education and training program. (1) Before any new toxic substance may be introduced into the workplace, an employer must provide employees with the required education and training for that substance.

(2) Upon the receipt of information indicating that a substance already in use in the workplace is toxic, an employer shall promptly provide employees with the required education and training for that substance.

(f) Employees' rights. The education and training program for employees required by Labor Law, section 878, shall include the following information:

(1) the employees' right to notice and information, the type of information to be provided, and the procedures for obtaining such information, under Labor Law, section 876, and these regulations;

(2) the employees' right to refuse to work with a toxic substance for which a request for information was made but not responded to within 72 hours of the request; the right not to lose pay or forfeit any other privilege until a proper response to the request is received; and the right not to be discharged, disciplined, penalized, or discriminated against for exercising any right under Labor Law, article 28, or these regulations; and that complaints regarding violations of Labor Law, article 28 or these regulations may be made to either the New York State Department of Labor or the Attorney

General of the State of New York:

(3) the employees' right to education and training, the specific information required to be provided through such education and training, and the manner in which such education and training is to be provided under Labor Law, section 878, and these regulations; and

(4) the employer's recordkeeping obligations and employees' right to examine and copy such records under Labor Law, section 879, and these regulations.

(g) Recordkeeping. Employers shall maintain a written record of training given to employees. This record shall describe the training, the date or dates on which it was given, the names of the employees in attendance at each session, and the person(s) conducting the training. These records shall be maintained by the employer for the duration of each employee's employment and shall be made available upon request to the employee, his or her representative, the New York State Department of Labor and the Attorney General of the State of New York.

Sec. filed April 13, 1987 eff. June 1, 1987.

§ 820.5 General recordkeeping responsibilities.

(a) The record required to be maintained by Labor Law, section 879, shall specify the name, address and social security number of the employee, and the chemical and trade name(s), chemical abstracts service number, and manufacturer, if known, of each substance to which the employee has been exposed.

(b) The employer shall keep a file of any written materials maintained to comply with Labor Law, article 28, including, at least, training materials and the MSDS's or chemical data sheets for each toxic substance found in the workplace since the effective date of Labor Law, article 28, whether or not the substance is still present in the workplace.

(c) An employer ceasing operations or relocating out of the State shall supply the New York State Department of Health with a copy of the records required under subdivisions (a) and (b) of this section.

Sec. filed April 13, 1987 eff. June 1, 1987.

§ 820.6 Information and assistance.

Any employer may request further information or assistance regarding these regulations or compliance therewith by contacting the Bureau of Toxic Substance Assessment of the New York State Department of Health.

Sec. filed April 13, 1987 eff. June 1, 1987.

§ 820.7 Separability.

If any section, clause or provision of this Part shall be unconstitutional, or be invalid or ineffective in whole or in part, to the extent that it is not unconstitutional, invalid or ineffective, it shall be valid and effective and no other section, clause or provision shall on account thereof be deemed invalid or ineffective.

Sec. filed April 13, 1987 eff. June 1, 1987.

APPENDIX B

PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS (CONTINUED)

Subpart Z—Toxic and Hazardous Substances

Sec.	
1910.1000	Air contaminants.
1910.1001	Asbestos.
1910.1002	Coal tar pitch volatiles; interpretation of term.
1910.1003	13 Carcinogens (4-Nitrobiphenyl, etc.).
1910.1004	alpha-Naphthylamine.
1910.1005	[Reserved]
1910.1006	Methyl chloromethyl ether.
1910.1007	3,′—Dichlorobenzidine (and its salts).
1910.1008	bis-Chloromethyl ether.
1910.1009	beta-Naphthylamine.
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1910.1011	4-Aminodiphenyl.
1910.1012	Ethyleneimine.
1910.1013	beta-Propiolactone.
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1910.1015	4-Dimethylaminoazobenzene.
1910.1016	N-Nitrosodimethylamine.
1910.1017	Vinyl chloride.
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1910.1025	Lead.
1910.1026	Chromium (VI).
1910.1027	Cadmium.
1910.1028	Benzene.
1910.1029	Coke oven emissions.
1910.1030	Bloodborne pathogens.
1910.1043	Cotton dust.
1910.1044	1,2-dibromo-3-chloropropane.
1910.1045	Acrylonitrile.
1910.1047	Ethylene oxide.
1910.1048	Formaldehyde.
1910.1050	Methylenedianiline.
1910.1051	1,3-Butadiene.
1910.1052	Methylene Chloride.
1910.1096	Ionizing radiation.
1910.1200	Hazard communication.
1910.1201	Retention of DOT markings, placards and labels.
1910.1450	Occupational exposure to hazardous chemicals in laboratories.

SUBJECT INDEX FOR 29 CFR PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS

Subpart Z—Toxic and Hazardous Substances

AUTHORITY: Secs. 4, 6, 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, and 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), 1-90 (55 FR 9033), 6-96 (62 FR 111),

3-2000 (65 FR 50017), 5-2002 (67 FR 65008), or 5-2007 (72 FR 31160), as applicable; and 29 CFR part 1911.

All of subpart Z issued under section 6(b) of the Occupational Safety and Health Act of 1970, except those substances that have exposure limits listed in Tables Z-1, Z-2, and Z-3 of 29 CFR 1910.1000. The latter were issued under section 6(a) (29 U.S.C. 655(a)).

Section 1910.1000, Tables Z-1, Z-2, and Z-3 also issued under 5 U.S.C. 553, but not under 29 CFR part 1911 except for the arsenic (organic compounds), benzene, cotton dust, and chromium (VI) listings.

Section 1910.1001 also issued under section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704) and 5 U.S.C. 553.

Section 1910.1002 also issued under 5 U.S.C. 553, but not under 29 U.S.C. 655 or 29 CFR part 1911.

Sections 1910.1018, 1910.1029, and 1910.1200 also issued under 29 U.S.C. 653.

Section 1910.1030 also issued under Public Law 106-430, 114 Stat. 1901.

SOURCE: 39 FR 23502, June 27, 1974, unless otherwise noted. Redesignated at 40 FR 23072, May 28, 1975.

§ 1910.1000 Air contaminants.

An employee's exposure to any substance listed in Tables Z-1, Z-2, or Z-3 of this section shall be limited in accordance with the requirements of the following paragraphs of this section.

(a) *Table Z-1—(1) Substances with limits preceded by "C"—Ceiling Values.* An employee's exposure to any substance in Table Z-1, the exposure limit of which is preceded by a "C", shall at no time exceed the exposure limit given for that substance. If instantaneous monitoring is not feasible, then the ceiling shall be assessed as a 15-minute time weighted average exposure which shall not be exceeded at any time during the working day.

(2) *Other substances—8-hour Time Weighted Averages.* An employee's exposure to any substance in Table Z-1, the exposure limit of which is not preceded by a "C", shall not exceed the 8-hour Time Weighted Average given for that substance in any 8-hour work shift of a 40-hour work week.

(b) *Table Z-2.* An employee's exposure to any substance listed in Table Z-2 shall not exceed the exposure limits specified as follows:

(1) *8-hour time weighted averages.* An employee's exposure to any substance listed in Table Z-2, in any 8-hour work

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shift of a 40-hour work week, shall not exceed the 8-hour time weighted average limit given for that substance in Table Z-2.

(2) *Acceptable ceiling concentrations.* An employee's exposure to a substance listed in Table Z-2 shall not exceed at any time during an 8-hour shift the acceptable ceiling concentration limit given for the substance in the table, except for a time period, and up to a concentration not exceeding the maximum duration and concentration allowed in the column under "acceptable maximum peak above the acceptable ceiling concentration for an 8-hour shift."

(3) *Example.* During an 8-hour work shift, an employee may be exposed to a concentration of Substance A (with a 10 ppm TWA, 25 ppm ceiling and 50 ppm peak) above 25 ppm (but never above 50 ppm) only for a maximum period of 10 minutes. Such exposure must be compensated by exposures to concentrations less than 10 ppm so that the cumulative exposure for the entire 8-hour work shift does not exceed a weighted average of 10 ppm.

(c) *Table Z-3.* An employee's exposure to any substance listed in Table Z-3, in any 8-hour work shift of a 40-hour work week, shall not exceed the 8-hour time weighted average limit given for that substance in the table.

(d) *Computation formulae.* The computation formula which shall apply to employee exposure to more than one substance for which 8-hour time weighted averages are listed in subpart Z of 29 CFR part 1910 in order to determine whether an employee is exposed over the regulatory limit is as follows:

(1)(i) The cumulative exposure for an 8-hour work shift shall be computed as follows:

$$E = (C_a T_a + C_b T_b + \dots + C_n T_n) \div 8$$

Where:

E is the equivalent exposure for the working shift.

C is the concentration during any period of time T where the concentration remains constant.

T is the duration in hours of the exposure at the concentration C.

The value of E shall not exceed the 8-hour time weighted average specified in subpart Z of 29 CFR part 1910 for the substance involved.

(ii) To illustrate the formula prescribed in paragraph (d)(1)(i) of this section, assume that Substance A has an 8-hour time weighted average limit of 100 ppm noted in Table Z-1. Assume that an employee is subject to the following exposure:

- Two hours exposure at 150 ppm
- Two hours exposure at 75 ppm
- Four hours exposure at 50 ppm

Substituting this information in the formula, we have

$$(2 \times 150 + 2 \times 75 + 4 \times 50) \div 8 = 81.25 \text{ ppm}$$

Since 81.25 ppm is less than 100 ppm, the 8-hour time weighted average limit, the exposure is acceptable.

(2)(i) In case of a mixture of air contaminants an employer shall compute the equivalent exposure as follows:

$$E_m = (C_1 + L_1 + C_2 + L_2) + \dots + (C_n + L_n)$$

Where:

E_m is the equivalent exposure for the mixture.

C is the concentration of a particular contaminant.

L is the exposure limit for that substance specified in subpart Z of 29 CFR part 1910.

The value of E_m shall not exceed unity (1).

(ii) To illustrate the formula prescribed in paragraph (d)(2)(i) of this section, consider the following exposures:

Substance	Actual concentration of 8-hour exposure (ppm)	8-hour TWA PEL (ppm)
B	500	1,000
C	45	200
D	40	200

Substituting in the formula, we have:

$$E_m = 500 + 1,000 + 45 + 200 + 40 + 200$$

$$E_m = 0.500 + 0.225 + 0.200$$

$$E_m = 0.925$$

Since E_m is less than unity (1), the exposure combination is within acceptable limits.

(e) To achieve compliance with paragraphs (a) through (d) of this section, administrative or engineering controls must first be determined and implemented whenever feasible. When such controls are not feasible to achieve full compliance, protective equipment or any other protective measures shall be used to keep the exposure of employees to air contaminants within the limits

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prescribed in this section. Any equipment and/or technical measures used for this purpose must be approved for each particular use by a competent industrial hygienist or other technically qualified person. Whenever respirators are used, their use shall comply with 1910.134.

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Acetaldehyde	75-07-0	200	360	
Acetic acid	64-19-7	10	25	
Acetic anhydride	108-24-7	5	20	
Acetone	67-64-1	1000	2400	
Acetonitrile	75-05-8	40	70	
2-Acetylaminofluorine; see 1910.1014	53-96-3			
Acetylene dichloride; see 1,2-Dichloroethylene.				
Acetylene tetrabromide	79-27-6	1	14	
Acrolein	107-02-8	0.1	0.25	
Acrylamide	79-06-1		0.3	X
Acrylonitrile; see 1910.1045	107-13-1			
Aldrin	309-00-2		0.25	X
Allyl alcohol	107-18-6	2	5	X
Allyl chloride	107-05-1	1	3	
Allyl glycidyl ether (AGE)	106-92-3	(C)10	(C)45	
Allyl propyl disulfide	2179-59-1	2	12	
alpha-Alumina	1344-28-1			
Total dust			15	
Respirable fraction			5	
Aluminum, metal (as Al)	7429-90-5			
Total dust			15	
Respirable fraction			5	
4-Aminodiphenyl; see 1910.1011	92-67-1			
2-Aminoethanol; see Ethanolamine.				
2-Aminopyridine	504-29-0	0.5	2	
Ammonia	7664-41-7	50	35	
Ammonium sulfamate	7773-06-0			
Total dust			15	
Respirable fraction			5	
n-Amyl acetate	628-63-7	100	525	
sec-Amyl acetate	626-38-0	125	650	
Aniline and homologs	62-53-3	5	19	X
Anisidine (o-, p-isomers)	29191-52-4		0.5	X
Antimony and compounds (as Sb)	7440-36-0		0.5	
ANTU (alpha Naphthylthiourea)	86-88-4		0.3	
Arsenic, inorganic compounds (as As); see 1910.1018	7440-38-2			
Arsenic, organic compounds (as As)	7440-38-2		0.5	
Arsine	7784-42-1	0.05	0.2	
Asbestos; see 1910.1001	(⁴)			
Azinphos-methyl	86-50-0		0.2	X
Barium, soluble compounds (as Ba)	7440-39-3		0.5	
Barium sulfate	7727-43-7			
Total dust			15	
Respirable fraction			5	
Benomyl	17804-35-2			
Total dust			15	
Respirable fraction			5	
Benzene; see 1910.1028	71-43-2			
See Table Z-2 for the limits applicable in the operations or sectors excluded in 1910.1028 ^d				
Benzidine; see 1910.1010	92-87-5			
p-Benzoquinone; see Quinone.				
Benzo(a)pyrene; see Coal tar pitch volatiles..				
Benzoyl peroxide	94-36-0		5	
Benzyl chloride	100-44-7	1	5	
Beryllium and beryllium compounds (as Be)	7440-41-7		(²)	
Biphenyl; see Diphenyl.				
Bismuth telluride, Undoped	1304-82-1			
Total dust			15	
Respirable fraction			5	
Boron oxide	1303-86-2			
Total dust			15	
Boron trifluoride	7637-07-2	(C)1	(C)3	
Bromine	7726-95-6	0.1	0.7	
Bromoform	75-25-2	0.5	5	X
Butadiene (1,3-Butadiene); See 29 CFR 1910.1051; 29 CFR 1910.19(l).	106-99-0	1 ppm/5 ppm STEL		

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Butanethiol; see Butyl mercaptan.				
2-Butanone (Methyl ethyl ketone)	78-93-3	200	590	
2-Butoxyethanol	111-76-2	50	240	X
n-Butyl acetate	123-86-4	150	710	
sec-Butyl acetate	105-46-4	200	950	
tert-Butyl acetate	540-88-5	200	950	
n-Butyl alcohol	71-36-3	100	300	
sec-Butyl alcohol	78-92-2	150	450	
tert-Butyl alcohol	75-65-0	100	300	
Butylamine	109-73-9	(C)5	(C)15	X
tert-Butyl chromate (as CrO ₃); see 1910.1026 ⁶	1189-85-1			
n-Butyl glycidyl ether (BGE)	2426-08-6	50	270	
Butyl mercaptan	109-79-5	10	35	
p-tert-Butyltoluene	98-51-1	10	60	
Cadmium (as Cd); see 1910.1027	7440-43-9			
Calcium carbonate	1317-65-3			
Total dust			15	
Respirable fraction			5	
Calcium hydroxide	1305-62-0			
Total dust			15	
Respirable fraction			5	
Calcium oxide	1305-78-8		5	
Calcium silicate	1344-95-2			
Total dust			15	
Respirable fraction			5	
Calcium sulfate	7778-18-9			
Total dust			15	
Respirable fraction			5	
Camphor, synthetic	76-22-2		2	
Carbaryl (Sevin)	63-25-2		5	
Carbon black	1333-86-4		3.5	
Carbon dioxide	124-38-9	5000	9000	
Carbon disulfide	75-15-0		(²)	
Carbon monoxide	630-08-0	50	55	
Carbon tetrachloride	56-23-5		(²)	
Cellulose	9004-34-6			
Total dust			15	
Respirable fraction			5	
Chlordane	57-74-9		0.5	X
Chlorinated camphene	8001-35-2		0.5	X
Chlorinated diphenyl oxide	55720-99-5		0.5	
Chlorine	7782-50-5	(C)1	(C)3	
Chlorine dioxide	10049-04-4	0.1	0.3	
Chlorine trifluoride	7790-91-2	(C)0.1	(C)0.4	
Chloroacetaldehyde	107-20-0	(C)1	(C)3	
a-Chloroacetophenone (Phenacyl chloride)	532-27-4	0.05	0.3	
Chlorobenzene	108-90-7	75	350	
o-Chlorobenzylidene malononitrile	2698-41-1	0.05	0.4	
Chlorobromomethane	74-97-5	200	1050	
2-Chloro-1,3-butadiene; see beta-Chloroprene.				
Chlorodiphenyl (42% Chlorine) (PCB)	53469-21-9		1	X
Chlorodiphenyl (54% Chlorine) (PCB)	11097-69-1		0.5	X
1-Chloro-2,3-epoxypropane; see Epichlorohydrin.				
2-Chloroethanol; see Ethylene chlorohydrin.				
Chloroethylene; see Vinyl chloride.				
Chloroform (Trichloromethane)	67-66-3	(C)50	(C)240	
bis(Chloromethyl) ether; see 1910.1008	542-88-1			
Chloromethyl methyl ether; see 1910.1006	107-30-2			
1-Chloro-1-nitropropane	600-25-9	20	100	
Chloropicrin	76-06-2	0.1	0.7	
beta-Chloroprene	126-99-8	25	90	X
2-Chloro-6-(trichloromethyl) pyridine	1929-82-4			
Total dust			15	
Respirable fraction			5	
Chromium (II) compounds.				
(as Cr)	7440-47-3		0.5	
Chromium (III) compounds.				
(as Cr)	7440-47-3		0.5	
Chromium (VI) compounds; See 1910.1026 ⁵				
Chromium metal and insol. salts (as Cr)	7440-47-3		1	
Chrysene; see Coal tar pitch volatiles.				
Clopidol	2971-90-6			

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Total dust			15	
Respirable fraction			5	
Coal dust (less than 5% SiO ₂), respirable fraction			(³)	
Coal dust (greater than or equal to 5% SiO ₂), respirable fraction.			(³)	
Coal tar pitch volatiles (benzene soluble fraction), anthracene, BaP, phenanthrene, acridine, chrysene, pyrene.	65966-93-2		0.2	
Cobalt metal, dust, and fume (as Co)	7440-48-4		0.1	
Coke oven emissions; see 1910.1029.				
Copper	7440-50-8			
Fume (as Cu)			0.1	
Dusts and mists (as Cu)			1	
Cotton dust ^e ; see 1910.1043			1	
Crag herbicide (Sesone)	136-78-7			
Total dust			15	
Respirable fraction			5	
Cresol, all isomers	1319-77-3	5	22	X
Crotonaldehyde	123-73-9;	2	6	
	4170-30-3			
Cumene	98-82-8	50	245	X
Cyanides (as CN)	(⁴)		5	X
Cyclohexane	110-82-7	300	1050	
Cyclohexanol	108-93-0	50	200	
Cyclohexanone	108-94-1	50	200	
Cyclohexene	110-83-8	300	1015	
Cyclopentadiene	542-92-7	75	200	
2,4-D (Dichlorophenoxyacetic acid)	94-75-7		10	
Decaborane	17702-41-9	0.05	0.3	X
Demeton (Systox)	8065-48-3		0.1	X
Diacetone alcohol (4-Hydroxy-4-methyl-2-pentanone)	123-42-2	50	240	
1,2-Diaminoethane; see Ethylenediamine.				
Diazomethane	334-88-3	0.2	0.4	
Diborane	19287-45-7	0.1	0.1	
1,2-Dibromo-3-chloropropane (DBCP); see 1910.1044	96-12-8			
1,2-Dibromoethane; see Ethylene dibromide.				
Dibutyl phosphate	107-66-4	1	5	
Dibutyl phthalate	84-74-2		5	
o-Dichlorobenzene	95-50-1	(C)50	(C)300	
p-Dichlorobenzene	106-46-7	75	450	
3,4-Dichlorobenzidine; see 1910.1007	91-94-1			
Dichlorodifluoromethane	75-71-8	1000	4950	
1,3-Dichloro-5,5-dimethyl hydantoin	118-52-5		0.2	
Dichlorodiphenyltrichloroethane (DDT)	50-29-3		1	X
1,1-Dichloroethane	75-34-3	100	400	
1,2-Dichloroethane; see Ethylene dichloride.				
1,2-Dichloroethylene	540-59-0	200	790	
Dichloroethyl ether	111-44-4	(C)15	(C)90	X
Dichloromethane; see Methylene chloride.				
Dichloromonofluoromethane	75-43-4	1000	4200	
1,1-Dichloro-1-nitroethane	594-72-9	(C)10	(C)60	
1,2-Dichloropropane; see Propylene dichloride.				
Dichlorotetrafluoroethane	76-14-2	1000	7000	
Dichlorvos (DDVP)	62-73-7		1	X
Dicyclopentadienyl iron	102-54-5			
Total dust			15	
Respirable fraction			5	
Dieldrin	60-57-1		0.25	X
Diethylamine	109-89-7	25	75	
2-Diethylaminoethanol	100-37-8	10	50	X
Diethyl ether; see Ethyl ether.				
Difluorodibromomethane	75-61-6	100	860	
Diglycidyl ether (DGE)	2238-07-5	(C)0.5	(C)2.8	
Dihydroxybenzene; see Hydroquinone.				
Diisobutyl ketone	108-83-8	50	290	
Diisopropylamine	108-18-9	5	20	X
4-Dimethylaminoazobenzene; see 1910.1015	60-11-7			
Dimethoxymethane; see Methylal.				
Dimethyl acetamide	127-19-5	10	35	X
Dimethylamine	124-40-3	10	18	
Dimethylaminobenzene; see Xylidine.				
Dimethylaniline (N,N-Dimethylaniline)	121-69-7	5	25	X
Dimethylbenzene; see Xylene.				

TABLE Z–1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Dimethyl-1,2-dibromo-2,2-dichloroethyl phosphate	300–76–5	.....	3	
Dimethylformamide	68–12–2	10	30	X
2,6-Dimethyl-4-heptanone; see Diisobutyl ketone.				
1,1-Dimethylhydrazine	57–14–7	0.5	1	X
Dimethylphthalate	131–11–3	.....	5	
Dimethyl sulfate	77–78–1	1	5	X
Dinitrobenzene (all isomers)			1	X
(ortho)	528–29–0			
(meta)	99–65–0			
(para)	100–25–4			
Dinitro- <i>o</i> -cresol	534–52–1	.....	0.2	X
Dinitrotoluene	25321–14–6	.....	1.5	X
Dioxane (Diethylene dioxide)	123–91–1	100	360	X
Diphenyl (Biphenyl)	92–52–4	0.2	1	
Diphenylmethane diisocyanate; see Methylene bisphenyl isocyanate.				
Dipropylene glycol methyl ether	34590–94–8	100	600	X
Di- <i>sec</i> octyl phthalate (Di-(2-ethylhexyl) phthalate)	117–81–7	.....	5	
Emery	12415–34–8	.....	
Total dust			15	
Respirable fraction			5	
Endrin	72–20–8	.....	0.1	X
Epichlorohydrin	106–89–8	5	19	X
EPN	2104–64–5	.....	0.5	X
1,2-Epoxypropane; see Propylene oxide.				
2,3-Epoxy-1-propanol; see Glycidol.				
Ethanedithiol; see Ethyl mercaptan.				
Ethanolamine	141–43–5	3	6	
2-Ethoxyethanol (Cellosolve)	110–80–5	200	740	X
2-Ethoxyethyl acetate (Cellosolve acetate)	111–15–9	100	540	X
Ethyl acetate	141–78–6	400	1400	
Ethyl acrylate	140–88–5	25	100	X
Ethyl alcohol (Ethanol)	64–17–5	1000	1900	
Ethylamine	75–04–7	10	18	
Ethyl amyl ketone (5-Methyl-3-heptanone)	541–85–5	25	130	
Ethyl benzene	100–41–4	100	435	
Ethyl bromide	74–96–4	200	890	
Ethyl butyl ketone (3-Heptanone)	106–35–4	50	230	
Ethyl chloride	75–00–3	1000	2600	
Ethyl ether	60–29–7	400	1200	
Ethyl formate	109–94–4	100	300	
Ethyl mercaptan	75–08–1	(C)10	(C)25	
Ethyl silicate	78–10–4	100	850	
Ethylene chlorohydrin	107–07–3	5	16	X
Ethylenediamine	107–15–3	10	25	
Ethylene dibromide	106–93–4	.....	(²)	
Ethylene dichloride (1,2-Dichloroethane)	107–06–2	.....	(²)	
Ethylene glycol dinitrate	628–96–6	(C)0.2	(C)1	X
Ethylene glycol methyl acetate; see Methyl cellosolve acetate.				
Ethyleneimine; see 1910.1012	151–56–4	.....	
Ethylene oxide; see 1910.1047	75–21–8	.....	
Ethylidene chloride; see 1,1-Dichloroethane.				
N-Ethylmorpholine	100–74–3	20	94	X
Ferbam	14484–64–1	.....	
Total dust			15	
Ferrovandium dust	12604–58–9	.....	1	
Fluorides (as F)	(⁴)	.....	2.5	
Fluorine	7782–41–4	0.1	0.2	
Fluorotrichloromethane (Trichlorofluoromethane)	75–69–4	1000	5600	
Formaldehyde; see 1910.1048	50–00–0	.....	
Formic acid	64–18–6	5	9	
Furfural	98–01–1	5	20	X
Furfuryl alcohol	98–00–0	50	200	
Grain dust (oat, wheat, barley)			10	
Glycerin (mist)	56–81–5	.....	
Total dust			15	
Respirable fraction			5	
Glycidol	556–52–5	50	150	
Glycol monoethyl ether; see 2-Ethoxyethanol.				
Graphite, natural, respirable dust	7782–42–5	.....	(³)	
Graphite, synthetic.				

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Total dust			15	
Respirable fraction			5	
Guthion; see Azinphos methyl.				
Gypsum	13397-24-5			
Total dust			15	
Respirable fraction			5	
Hafnium	7440-58-6		0.5	
Heptachlor	76-44-8		0.5	X
Heptane (n-Heptane)	142-82-5	500	2000	
Hexachloroethane	67-72-1	1	10	X
Hexachloronaphthalene	1335-87-1		0.2	X
n-Hexane	110-54-3	500	1800	
2-Hexanone (Methyl n-butyl ketone)	591-78-6	100	410	
Hexone (Methyl isobutyl ketone)	108-10-1	100	410	
sec-Hexyl acetate	108-84-9	50	300	
Hydrazine	302-01-2	1	1.3	X
Hydrogen bromide	10035-10-6	3	10	
Hydrogen chloride	7647-01-0	(C)5	(C)7	
Hydrogen cyanide	74-90-8	10	11	X
Hydrogen fluoride (as F)	7664-39-3		(²)	
Hydrogen peroxide	7722-84-1	1	1.4	
Hydrogen selenide (as Se)	7783-07-5	0.05	0.2	
Hydrogen sulfide	7783-06-4		(²)	
Hydroquinone	123-31-9		2	
Iodine	7553-56-2	(C)0.1	(C)1	
Iron oxide fume	1309-37-1		10	
Isoamyl acetate	123-92-2	100	525	
Isoamyl alcohol (primary and secondary)	123-51-3	100	360	
Isobutyl acetate	110-19-0	150	700	
Isobutyl alcohol	78-83-1	100	300	
Isophorone	78-59-1	25	140	
Isopropyl acetate	108-21-4	250	950	
Isopropyl alcohol	67-63-0	400	980	
Isopropylamine	75-31-0	5	12	
Isopropyl ether	108-20-3	500	2100	
Isopropyl glycidyl ether (IGE)	4016-14-2	50	240	
Kaolin	1332-58-7			
Total dust			15	
Respirable fraction			5	
Ketene	463-51-4	0.5	0.9	
Lead, inorganic (as Pb); see 1910.1025	7439-92-1			
Limestone	1317-65-3			
Total dust			15	
Respirable fraction			5	
Lindane	58-89-9		0.5	X
Lithium hydride	7580-67-8		0.025	
L.P.G. (Liquefied petroleum gas)	68476-85-7	1000	1800	
Magnesite	546-93-0			
Total dust			15	
Respirable fraction			5	
Magnesium oxide fume	1309-48-4			
Total particulate			15	
Malathion	121-75-5			
Total dust			15	X
Maleic anhydride	108-31-6	0.25	1	
Manganese compounds (as Mn)	7439-96-5		(C)5	
Manganese fume (as Mn)	7439-96-5		(C)5	
Marble	1317-65-3			
Total dust			15	
Respirable fraction			5	
Mercury (aryl and inorganic) (as Hg)	7439-97-6		(²)	
Mercury (organo) alkyl compounds (as Hg)	7439-97-6		(²)	
Mercury (vapor) (as Hg)	7439-97-6		(²)	
Mesityl oxide	141-79-7	25	100	
Methanethiol; see Methyl mercaptan.				
Methoxychlor	72-43-5			
Total dust			15	
2-Methoxyethanol (Methyl cellosolve)	109-86-4	25	80	X
2-Methoxyethyl acetate (Methyl cellosolve acetate)	110-49-6	25	120	X
Methyl acetate	79-20-9	200	610	
Methyl acetylene (Propyne)	74-99-7	1000	1650	
Methyl acetylene-propadiene mixture (MAPP)		1000	1800	

TABLE Z–1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Methyl acrylate	96–33–3	10	35	X
Methylal (Dimethoxy-methane)	109–87–5	1000	3100	
Methyl alcohol	67–56–1	200	260	
Methylamine	74–89–5	10	12	
Methyl amyl alcohol; see Methyl isobutyl carbinol.				
Methyl n-amyl ketone	110–43–0	100	465	
Methyl bromide	74–83–9	(C)20	(C)80	X
Methyl butyl ketone; see 2-Hexanone.				
Methyl cellosolve; see 2-Methoxyethanol.				
Methyl cellosolve acetate; see 2-Methoxyethyl acetate.				
Methyl chloride	74–87–3		(²)	
Methyl chloroform (1,1,1-Trichloroethane)	71–55–6	350	1900	
Methylcyclohexane	108–87–2	500	2000	
Methylcyclohexanol	25639–42–3	100	470	
o-Methylcyclohexanone	583–60–8	100	460	X
Methylene chloride	75–09–2		(²)	
Methyl ethyl ketone (MEK); see 2-Butanone.				
Methyl formate	107–31–3	100	250	
Methyl hydrazine (Monomethyl hydrazine)	60–34–4	(C)0.2	(C)0.35	X
Methyl iodide	74–88–4	5	28	X
Methyl isoamyl ketone	110–12–3	100	475	
Methyl isobutyl carbinol	108–11–2	25	100	X
Methyl isobutyl ketone; see Hexone.				
Methyl isocyanate	624–83–9	0.02	0.05	X
Methyl mercaptan	74–93–1	(C)10	(C)20	
Methyl methacrylate	80–62–6	100	410	
Methyl propyl ketone; see 2-Pentanone.				
alpha-Methyl styrene	98–83–9	(C)100	(C)480	
Methylene bisphenyl isocyanate (MDI)	101–68–8	(C)0.02	(C)0.2	
Mica; see Silicates.				
Molybdenum (as Mo)	7439–98–7			
Soluble compounds			5	
Insoluble compounds.				
Total dust			15	
Monomethyl aniline	100–61–8	2	9	X
Monomethyl hydrazine; see Methyl hydrazine.				
Morpholine	110–91–8	20	70	X
Naphtha (Coal tar)	8030–30–6	100	400	
Naphthalene	91–20–3	10	50	
alpha-Naphthylamine; see 1910.1004	134–32–7			
beta-Naphthylamine; see 1910.1009	91–59–8			
Nickel carbonyl (as Ni)	13463–39–3	0.001	0.007	
Nickel, metal and insoluble compounds (as Ni)	7440–02–0		1	
Nickel, soluble compounds (as Ni)	7440–02–0		1	
Nicotine	54–11–5		0.5	X
Nitric acid	7697–37–2	2	5	
Nitric oxide	10102–43–9	25	30	
p-Nitroaniline	100–01–6	1	6	X
Nitrobenzene	98–95–3	1	5	X
p-Nitrochlorobenzene	100–00–5		1	X
4-Nitrodiphenyl; see 1910.1003	92–93–3			
Nitroethane	79–24–3	100	310	
Nitrogen dioxide	10102–44–0	(C)5	(C)9	
Nitrogen trifluoride	7783–54–2	10	29	
Nitroglycerin	55–63–0	(C)0.2	(C)2	X
Nitromethane	75–52–5	100	250	
1-Nitropropane	108–03–2	25	90	
2-Nitropropane	79–46–9	25	90	
N-Nitrosodimethylamine; see 1910.1016.				
Nitrotoluene (all isomers)		5	30	X
o-isomer	88–72–2			
m-isomer	99–08–1			
p-isomer	99–99–0			
Nitrotrichloromethane; see Chloropicrin.				
Octachloronaphthalene	2234–13–1		0.1	X
Octane	111–65–9	500	2350	
Oil mist, mineral	8012–95–1		5	
Osmium tetroxide (as Os)	20816–12–0		0.002	
Oxalic acid	144–62–7		1	
Oxygen difluoride	7783–41–7	0.05	0.1	
Ozone	10028–15–6	0.1	0.2	

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Paraquat, respirable dust	4685-14-7; 1910-42-5; 2074-50-2	.....	0.5	X
Parathion	56-38-2	.....	0.1	X
Particulates not otherwise regulated (PNOR) ¹ .				
Total dust			15	
Respirable fraction			5	
PCB; see Chlorodiphenyl (42% and 54% chlorine).				
Pentaborane	19624-22-7	0.005	0.01	
Pentachloronaphthalene	1321-64-8	.....	0.5	X
Pentachlorophenol	87-86-5	.....	0.5	X
Pentaerythritol	115-77-5	.....	
Total dust			15	
Respirable fraction			5	
Pentane	109-66-0	1000	2950	
2-Pentanone (Methyl propyl ketone)	107-87-9	200	700	
Perchloroethylene (Tetrachloroethylene)	127-18-4	.....	(²)	
Perchloromethyl mercaptan	594-42-3	0.1	0.8	
Perchloryl fluoride	7616-94-6	3	13.5	
Petroleum distillates (Naphtha) (Rubber Solvent)		500	2000	
Phenol	108-95-2	5	19	X
p-Phenylene diamine	106-50-3	.....	0.1	X
Phenyl ether, vapor	101-84-8	1	7	
Phenyl ether-biphenyl mixture, vapor		1	7	
Phenylethylene; see Styrene.				
Phenyl glycidyl ether (PGE)	122-60-1	10	60	
Phenylhydrazine	100-63-0	5	22	X
Phosdrin (Mevinphos)	7786-34-7	.....	0.1	X
Phosgene (Carbonyl chloride)	75-44-5	0.1	0.4	
Phosphine	7803-51-2	0.3	0.4	
Phosphoric acid	7664-38-2	.....	1	
Phosphorus (yellow)	7723-14-0	.....	0.1	
Phosphorus pentachloride	10026-13-8	.....	1	
Phosphorus pentasulfide	1314-80-3	.....	1	
Phosphorus trichloride	7719-12-2	0.5	3	
Phthalic anhydride	85-44-9	2	12	
Picloram	1918-02-1	.....	
Total dust			15	
Respirable fraction			5	
Picric acid	88-89-1	.....	0.1	X
Pindone (2-Pivalyl-1,3-indandione)	83-26-1	.....	0.1	
Plaster of Paris	26499-65-0	.....	
Total dust			15	
Respirable fraction			5	
Platinum (as Pt)	7440-06-4	.....	
Metal.				
Soluble salts			0.002	
Portland cement	65997-15-1	.....	
Total dust			15	
Respirable fraction			5	
Propane	74-98-6	1000	1800	
beta-Propiolactone; see 1910.1013	57-57-8	.....	
n-Propyl acetate	109-60-4	200	840	
n-Propyl alcohol	71-23-8	200	500	
n-Propyl nitrate	627-13-4	25	110	
Propylene dichloride	78-87-5	75	350	
Propylene imine	75-55-8	2	5	X
Propylene oxide	75-56-9	100	240	
Propyne; see Methyl acetylene.				
Pyrethrum	8003-34-7	.....	5	
Pyridine	110-86-1	5	15	
Quinone	106-51-4	0.1	0.4	
RDX; see Cyclonite.				
Rhodium (as Rh), metal fume and insoluble compounds	7440-16-6	.....	0.1	
Rhodium (as Rh), soluble compounds	7440-16-6	.....	0.001	
Ronnel	299-84-3	.....	15	
Rotenone	83-79-4	.....	5	
Rouge.				
Total dust			15	
Respirable fraction			5	
Selenium compounds (as Se)	7782-49-2	.....	0.2	
Selenium hexafluoride (as Se)	7783-79-1	0.05	0.4	

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Silica, amorphous, precipitated and gel	112926-00-8		(³)	
Silica, amorphous, diatomaceous earth, containing less than 1% crystalline silica.	61790-53-2		(³)	
Silica, crystalline cristobalite, respirable dust	14464-46-1		(³)	
Silica, crystalline quartz, respirable dust	14808-60-7		(³)	
Silica, crystalline tripoli (as quartz), respirable dust	1317-95-9		(³)	
Silica, crystalline tridymite, respirable dust	15468-32-3		(³)	
Silica, fused, respirable dust	60676-86-0		(³)	
Silicates (less than 1% crystalline silica).				
Mica (respirable dust)	12001-26-2		(³)	
Soapstone, total dust			(³)	
Soapstone, respirable dust			(³)	
Talc (containing asbestos); use asbestos limit; see 29 CFR 1910.1001.			(³)	
Talc (containing no asbestos), respirable dust	14807-96-6		(³)	
Tremolite, asbestiform; see 1910.1001.				
Silicon	7440-21-3			
Total dust			15	
Respirable fraction			5	
Silicon carbide	409-21-2			
Total dust			15	
Respirable fraction			5	
Silver, metal and soluble compounds (as Ag)	7440-22-4		0.01	
Soapstone; see Silicates.				
Sodium fluoroacetate	62-74-8		0.05	X
Sodium hydroxide	1310-73-2		2	
Starch	9005-25-8			
Total dust			15	
Respirable fraction			5	
Stibine	7803-52-3	0.1	0.5	
Stoddard solvent	8052-41-3	500	2900	
Strychnine	57-24-9		0.15	
Styrene	100-42-5		(²)	
Sucrose	57-50-1			
Total dust			15	
Respirable fraction			5	
Sulfur dioxide	7446-09-5	5	13	
Sulfur hexafluoride	2551-62-4	1000	6000	
Sulfuric acid	7664-93-9		1	
Sulfur monochloride	10025-67-9	1	6	
Sulfur pentafluoride	5714-22-7	0.025	0.25	
Sulfuryl fluoride	2699-79-8	5	20	
Systox; see Demeton.				
2,4,5-T (2,4,5-trichlorophenoxyacetic acid)	93-76-5		10	
Talc; see Silicates.				
Tantalum, metal and oxide dust	7440-25-7		5	
TEDP (Sulfotep)	3689-24-5		0.2	X
Tellurium and compounds (as Te)	13494-80-9		0.1	
Tellurium hexafluoride (as Te)	7783-80-4	0.02	0.2	
Temephos	3383-96-8			
Total dust			15	
Respirable fraction			5	
TEPP (Tetraethyl pyrophosphate)	107-49-3		0.05	X
Terphenyls	26140-60-3	(C)1	(C)9	
1,1,1,2-Tetrachloro-2,2-difluoroethane	76-11-9	500	4170	
1,1,2,2-Tetrachloro-1,2-difluoroethane	76-12-0	500	4170	
1,1,2,2-Tetrachloroethane	79-34-5	5	35	X
Tetrachloroethylene; see Perchloroethylene.				
Tetrachloromethane; see Carbon tetrachloride.				
Tetrachloronaphthalene	1335-88-2		2	X
Tetraethyl lead (as Pb)	78-00-2		0.075	X
Tetrahydrofuran	109-99-9	200	590	
Tetramethyl lead (as Pb)	75-74-1		0.075	X
Tetramethyl succinonitrile	3333-52-6	0.5	3	X
Tetranitromethane	509-14-8	1	8	
Tetryl (2,4,6-Trinitrophenylmethylnitramine)	479-45-8		1.5	X
Thallium, soluble compounds (as Tl)	7440-28-0		0.1	X
4,4'-Thiobis (6-tert, Butyl-m-cresol)	96-69-5			
Total dust			15	
Respirable fraction			5	
Thiram	137-26-8		5	
Tin, inorganic compounds (except oxides) (as Sn)	7440-31-5		2	

TABLE Z-1—LIMITS FOR AIR CONTAMINANTS—Continued

Substance	CAS No. (c)	ppm (a) ¹	mg/m ³ (b) ¹	Skin designation
Tin, organic compounds (as Sn)	7440-31-5	.....	0.1	
Titanium dioxide	13463-67-7	.....	.....
Total dust .....	.....	.....	15	
Toluene	108-88-3	.....	(²)	
Toluene-2,4-diisocyanate (TDI)	584-84-9	(C)0.02	(C)0.14	
o-Toluidine	95-53-4	5	22	X
Toxaphene; see Chlorinated camphene.				
Tremolite; see Silicates.				
Tributyl phosphate	126-73-8	.....	5	
1,1,1-Trichloroethane; see Methyl chloroform.				
1,1,2-Trichloroethane	79-00-5	10	45	X
Trichloroethylene	79-01-6	.....	(²)	
Trichloromethane; see Chloroform.				
Trichloronaphthalene	1321-65-9	.....	5	X
1,2,3-Trichloropropane	96-18-4	50	300	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1000	7600	
Triethylamine	121-44-8	25	100	
Trifluorobromomethane	75-63-8	1000	6100	
2,4,6-Trinitrophenol; see Picric acid.				
2,4,6-Trinitrophenylmethylnitramine; see Tetryl.				
2,4,6-Trinitrotoluene (TNT)	118-96-7	.....	1.5	X
Triorthocresyl phosphate	78-30-8	.....	0.1	
Triphenyl phosphate	115-86-6	.....	3	
Turpentine	8006-64-2	100	560	
Uranium (as U)	7440-61-1	.....	.....
Soluble compounds .....	.....	.....	0.05	
Insoluble compounds .....	.....	.....	0.25	
Vanadium	1314-62-1	.....	.....
Respirable dust (as V ₂ O ₅) .....	.....	.....	(C)0.5	
Fume (as V ₂ O ₅) .....	.....	.....	(C)0.1	
Vegetable oil mist.				
Total dust .....	.....	.....	15	
Respirable fraction .....	.....	.....	5	
Vinyl benzene; see Styrene.				
Vinyl chloride; see 1910.1017	75-01-4	.....	.....
Vinyl cyanide; see Acrylonitrile.				
Vinyl toluene	25013-15-4	100	480	
Warfarin	81-81-2	.....	0.1	
Xylenes (o-, m-, p-isomers)	1330-20-7	100	435	
Xylidine	1300-73-8	5	25	X
Yttrium	7440-65-5	.....	1	
Zinc chloride fume	7646-85-7	.....	1	
Zinc oxide fume	1314-13-2	.....	5	
Zinc oxide	1314-13-2	.....	.....
Total dust .....	.....	.....	15	
Respirable fraction .....	.....	.....	5	
Zinc stearate	557-05-1	.....	.....
Total dust .....	.....	.....	15	
Respirable fraction .....	.....	.....	5	
Zirconium compounds (as Zr)	7440-67-7	.....	5	

¹The PELs are 8-hour TWAs unless otherwise noted; a (C) designation denotes a ceiling limit. They are to be determined from breathing-zone air samples.

(a) Parts of vapor or gas per million parts of contaminated air by volume at 25 °C and 760 torr.

(b) Milligrams of substance per cubic meter of air. When entry is in this column only, the value is exact; when listed with a ppm entry, it is approximate.

(c) The CAS number is for information only. Enforcement is based on the substance name. For an entry covering more than one metal compound, measured as the metal, the CAS number for the metal is given—not CAS numbers for the individual compounds.

(d) The final benzene standard in 1910.1028 applies to all occupational exposures to benzene except in some circumstances the distribution and sale of fuels, sealed containers and pipelines, coke production, oil and gas drilling and production, natural gas processing, and the percentage exclusion for liquid mixtures; for the excepted subsegments, the benzene limits in Table Z-2 apply. See 1910.1028 for specific circumstances.

(e) This 8-hour TWA applies to respirable dust as measured by a vertical elutriator cotton dust sampler or equivalent instrument. The time-weighted average applies to the cotton waste processing operations of waste recycling (sorting, blending, cleaning and willowing) and garnetting. See also 1910.1043 for cotton dust limits applicable to other sectors.

(f) All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.

²See Table Z-2.

³See Table Z-3.

⁴Varies with compound.

⁵See Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in § 1910.1026 is stayed or is otherwise not in effect.

⁶If the exposure limit in § 1910.1026 is stayed or is otherwise not in effect, the exposure limit is a ceiling of 0.1 mg/m³.

TABLE Z-2

Substance	8-hour time weighted average	Acceptable ceiling concentration	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	
			Concentration	Maximum duration
Benzene ^a (Z37.40-1969)	10 ppm	25 ppm	50 ppm	10 minutes.
Beryllium and beryllium compounds (Z37.29-1970)	2 µg/m ³	5 µg/m ³	25 µg/m ³	30 minutes.
Cadmium fume ^b (Z37.5-1970)	0.1 mg/m ³	0.3 mg/m ³		
Cadmium dust ^b (Z37.5-1970)	0.2 mg/m ³	0.6 mg/m ³		
Carbon disulfide (Z37.3-1968)	20 ppm	30 ppm	100 ppm	30 minutes.
Carbon tetrachloride (Z37.17-1967)	10 ppm	25 ppm	200 ppm	5 min. in any 4 hrs.
Chromic acid and chromates (Z37.7-1971) (as CrO ₃) ^c		1 mg/10m ³ .		
Ethylene dibromide (Z37.31-1970)	20 ppm	30 ppm	50 ppm	5 minutes.
Ethylene dichloride (Z37.21-1969)	50 ppm	100 ppm	200 ppm	5 min. in any 3 hrs.
Fluoride as dust (Z37.28-1969)	2.5 mg/m ³ .			
Formaldehyde; see 1910.1048.				
Hydrogen fluoride (Z37.28-1969)	3 ppm.			
Hydrogen sulfide (Z37.2-1966)		20 ppm	50 ppm	10 mins. once, only if no other meas. exp. occurs.
Mercury (Z37.8-1971)		1 mg/10m ³ .		
Methyl chloride (Z37.18-1969)	100 ppm	200 ppm	300 ppm	5 mins. in any 3 hrs.
Methylene Chloride: See § 1919.52.				
Organo (alkyl) mercury (Z37.30-1969)	0.01 mg/m ³ ..	0.04 mg/m ³ .		
Styrene (Z37.15-1969)	100 ppm	200 ppm	600 ppm	5 mins. in any 3 hrs.
Tetrachloroethylene (Z37.22-1967)	100 ppm	200 ppm	300 ppm	5 mins. in any 3 hrs.
Toluene (Z37.12-1967)	200 ppm	300 ppm	500 ppm	10 minutes.
Trichloroethylene (Z37.19-1967)	100 ppm	200 ppm	300 ppm	5 mins. in any 2 hrs.

^a This standard applies to the industry segments exempt from the 1 ppm 8-hour TWA and 5 ppm STEL of the benzene standard at 1910.1028.

^b This standard applies to any operations or sectors for which the Cadmium standard, 1910.1027, is stayed or otherwise not in effect.

^c This standard applies to any operations or sectors for which the exposure limit in the Chromium (VI) standard, § 1910.1026, is stayed or is otherwise not in effect.

TABLE Z-3—MINERAL DUSTS

Substance	mppcf ^a	mg/m ³
Silica:		
Crystalline		
Quartz (Respirable)	250 ^b	10 mg/m ³ ^e
	%SiO ₂ +5	% SiO ₂ + 2
Quartz (Total Dust)		30 mg/m ³
		% SiO ₂ + 2
Cristobalite: Use ½ the value calculated from the count or mass formulae for quartz		
Tridymite: Use ½ the value calculated from the formulae for quartz		80 mg/m ³
Amorphous, including natural diatomaceous earth	20	%SiO ₂
Silicates (less than 1% crystalline silica):		
Mica	20	
Soapstone	20	
Talc (not containing asbestos)	20 ^c	
Talc (containing asbestos) Use asbestos limit.		
Tremolite, asbestiform (see 29 CFR 1910.1001).		
Portland cement	50	
Graphite (Natural)	15	
Coal Dust:		
Respirable fraction less than 5% SiO ₂		2.4 mg/m ³ ^e

TABLE Z-3—MINERAL DUSTS—Continued

Substance	mppcf ^a	mg/m ³
Respirable fraction greater than 5% SiO ₂		10 mg/m ³ ^e
		%SiO ₂ +2
Inert or Nuisance Dust: ^d		
Respirable fraction	15	5 mg/m ³
Total dust	50	15 mg/m ³

Note—Conversion factors - mppcf × 35.3 = million particles per cubic meter = particles per c.c.

^a Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.

^b The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

^c Containing less than 1% quartz; if 1% quartz or more, use quartz limit.

^d All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, which is the same as the Particulates Not Otherwise Regulated (PNOR) limit in Table Z-1.

^e Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics:

Aerodynamic diameter (unit density sphere)	Percent passing selector
2	90
2.5	75
3.5	50
5.0	25
10	0

The measurements under this note refer to the use of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figure corresponding to that of 2.4 mg/m³ in the table for coal dust is 4.5 mg/m^{3K}.

[58 FR 35340, June 30, 1993; 58 FR 40191, July 27, 1993, as amended at 61 FR 56831, Nov. 4, 1996; 62 FR 1600, Jan. 10, 1997; 62 FR 42018, Aug. 4, 1997; 71 FR 10373, Feb. 28, 2006; 71 FR 16673, Apr. 3, 2006; 71 FR 36008, June 23, 2006]

§ 1910.1001 Asbestos.

(a) *Scope and application.* (1) This section applies to all occupational exposures to asbestos in all industries covered by the Occupational Safety and Health Act, except as provided in paragraph (a)(2) and (3) of this section.

(2) This section does not apply to construction work as defined in 29 CFR 1910.12(b). (Exposure to asbestos in construction work is covered by 29 CFR 1926.1101).

(3) This section does not apply to ship repairing, shipbuilding and shipbreaking employments and related employments as defined in 29 CFR 1915.4. (Exposure to asbestos in these employments is covered by 29 CFR 1915.1001).

(b) *Definitions.* *Asbestos* includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.

Asbestos-containing material (ACM) means any material containing more than 1% asbestos.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Authorized person means any person authorized by the employer and required by work duties to be present in regulated areas.

Building/facility owner is the legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which activities covered by this standard take place.

Certified industrial hygienist (CIH) means one certified in the practice of industrial hygiene by the American Board of Industrial Hygiene.

Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Employee exposure means that exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.

Fiber means a particulate form of asbestos 5 micrometers or longer, with a

APPENDIX C

Specific-Substance “Right to Know” Training: A Recommended Approach for Coming Into Compliance with State Law



STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

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Welcome to the Guide for “Specific Substance” Training

The purpose of this guide is to provide a recommended approach for coming into compliance with New York State’s “Right to Know” Laws.

This training guide is **intended to be used by public employers to assist them in fulfilling their legal obligation to conduct “specific substance” training.** The guide is also aimed at **assisting public employees in developing their understanding of their rights to “specific substance” training.** This guide is not a training module, and merely handing it to a public employee is insufficient to fulfill the employer’s responsibilities under the “Right to Know” laws.

This guide assumes that the trainee has already completed, during the current training cycle, the required generic training. One method for obtaining much of this generic information is to use the on-line training found at <http://www.goer.state.ny.us/train/onlinelearning/HAZ/intro.html>. If you would like additional information about the required generic training, please contact the New York State Attorney General’s Office at (212)416-8700.

PLEASE NOTE: Oral explanations of all written materials must be available for the generic on-line training referenced above, for any other method of generic training, and for the “specific substance” training that is addressed below.

SUMMARY: After exploring the concepts of “routine exposure” and “toxic substance,” which are important for many aspects of “Right to Know” compliance, this training guide describes:

- steps that may aid in the identification of specific toxic substances in the trainee’s individual workplace, both as a method for coming into compliance with “Right to Know” record-keeping requirements, and as an aid in constructing “Right to Know” specific substance training modules;
- the required supplemental generic information;
- the required information that must be provided to a trainee regarding the specific toxic substances in the trainee’s workplace;
- recommended methods that may aid in complying with the requirement that “Right to Know” training be effective;
- considerations that may aid in complying with the requirement that “Right to Know” trainers be qualified; and
- the importance of bearing in mind the statutorily-enacted legislative intent if questions arise about the training and/or record-keeping.

I) Key Concepts: “Routine Exposure” and “Toxic Substance”

A public employer in New York State must provide “Right to Know” training programs to each of its employees who is routinely exposed to a toxic substance in the course of the employee’s job as part of the job or incidental thereto. The training must be provided by qualified trainers.

A “**toxic substance**” is **any** substance that has yielded positive evidence of acute or chronic **health hazards** in human, animal, or other biological testing.

An employee is “**routinely exposed**” to a toxic substance when:

exposure can be **expected to occur** in the course of his or her employment, through **any actual or potential** route of entry, even if the exposure is accidental, and even if actual exposure is prevented in whole or in part by the use of protective devices.

II) Generic Training Must Precede Specific-Substance Training

The generic training required by the “Right to Know” laws explains basic concepts that are common to many toxic substances and informs the trainees of many of their rights under the “Right to Know” laws. One partial source of the generic training may be found at <http://www.goer.state.ny.us/train/onlinelearning/HAZ/intro.html>. That on-line training, however, omits some of the generic information that must be included in “Right to Know” training, on the theory that this remaining required generic information may be more meaningful if it is taught in conjunction with specific substance training. This remaining required generic information includes:

- target organs of various toxins, and how toxic substances reach such organs;
- the retention and accumulation of toxic substances in the body;
- the concepts of synergistic, additive and antagonistic interactions between substances whereby their toxic effects may be multiplied or otherwise increased;
- the concept of a biological threshold level of exposure for the effects of some toxic substances and the absence of any threshold exposure level for other toxic substances, such as chemical carcinogenicity; and
- the inability of the body to reverse some toxic effects.

In any event, the generic portion of “Right to Know” training must include all of the generic information described as part of the required training in Article 28 of the New York State Labor

Law and Part 820, Subchapter A, Chapter XI of Title 12 of the New York Codes, Rules, and Regulations.

III) Identifying Specific Toxic Substances in a Trainee's Own Workplace.

Section 879 Exposure Records

The Exposure Records that the employer is required to keep under Section 879 of the New York State Labor Law are not only an important independent legal requirement; they may also help in creating specific-substance training modules. Section 879 requires public employers to keep records of:

the name of each employee who handles or uses a substance included in section 1910 of the Federal Occupational Safety and Health Regulations, Subpart Z (sometimes just called "Subpart Z," it can be found at title 29 of the Code of Federal Regulations, sections 1910.1000 through 1910.1450) **AND which specific substances were used or handled by which employee.**

The section 879 records may be helpful in both identifying specific toxic substances that must be included in the supplemental "Right to Know" training module and in determining the composition of an appropriate group of trainees, as explained below.

Going Beyond the Section 879 Exposure Records - Other Toxic Substances

After the "subpart z" substances are identified for each employee, then the employer must determine if the employee is routinely exposed to other toxic substances in the workplace. "Toxic substances" include more substances than subpart z substances, as explained above.

If a public employer is not in compliance with these record-keeping requirements, and does not know what additional toxic substances may be in its employees' individual workplaces:

- One way to move toward coming into compliance is to have an Industrial Hygienist conduct a survey of the toxic substances in the workplaces in question, and to assure that both management and the workers, including the workers' representatives, have adequate opportunities for input and feedback. One way to find an Industrial Hygienist near you is to click on <http://www.abih.org> and follow the link to "roster."

- Another possibility is to create survey procedures of each individual workplace environment to determine the toxic substances to which the employees are exposed to in that environment. Management retains the ultimate responsibility for determining what these toxic substances are, and supervisors should make the initial determinations, but supervisees should be

given opportunities for input and feedback. A health and safety specialist should be available to supervise the process and to answer any questions.

- Regardless of the method chosen for creation of legally adequate section 879 records, management must create systems for adding to the records when new toxic substances are introduced into the workplace and for updating the records to adjust for developments in scientific knowledge.

After the employer has identified the toxic substances in each workplace, each employee should be given an opportunity to review the list and to supplement it, as necessary. Management-employee cooperation in this area is a key component of assuring that the toxic substances in the workplace are identified.

Grouping Trainees - the Same or Similar Exposures

We recommend grouping the trainees according to the toxic substances to which they are **routinely exposed**. To review the definition of "routine exposure," please return to page 3 of this guide.

Holding the trainees' attention is often a challenge in "Right to Know" training, and the information that must be conveyed is often voluminous and complex. Trainees within a group need not have the same routine exposures to toxic substances, but their routine exposures should be, at least, similar.

The effectiveness of "Right to Know" training may be undercut when a trainee is unnecessarily overwhelmed with voluminous and complex information that has nothing to do with his or her own workplace environment.

Requiring public employees to spend working hours receiving training on numerous toxic substances to which they are not routinely exposed in their jobs would not promote efficient use of public resources.

Grouping Toxic Substances

If a trainee is routinely exposed to a **very large number** of toxic substances so that training on each specific substance is highly impractical and would undercut the effectiveness of the training as a whole, then the toxic substances may be grouped for training purposes, provided that the substances are sufficiently similar. Among the considerations in determining whether toxic substances may be grouped in such situations are whether:

the toxic substances in the group pose the same type of hazard,

use of the same personal protective equipment is required for all of the substances in the group,

the procedures that the trainee must follow in case of leaks or spills are the same, and

the procedures that the trainee must follow in an emergency are the same.

Please note that toxic substances with similar names may have very different chemical properties. Regardless of whether the toxic substances have similar names, the key considerations are whether the risks that the substances pose are sufficiently similar and the steps that the employee must take to minimize those risks are equivalent so that grouping is warranted.

IV) Specific Substance Training - The Required Information

As to each specific toxic substance or appropriate group of substances, the trainer must provide the following information to the trainees:

1. the **location** of the toxic substance in the trainee's individual workplace environment;
2. the toxic substance's **properties**,
3. the **name** or names of the toxic substance, including the generic or chemical name, the trade name, and any other commonly used name;
4. the acute and chronic **effects of exposure** at hazardous levels;
5. the **symptoms** of effects of exposure at hazardous levels;
6. the potential for **flammability, explosion, and reactivity** of the substance;
7. appropriate **emergency treatment**;
8. proper **conditions for safe use and exposure** to the toxic substance, including the use and functioning of **personal protective equipment**, in both ordinary and special circumstances;
9. the use and functioning of appropriate **fire-fighting equipment**;
10. the **appropriate procedures for cleanup** of leaks and spills of the toxic substance (including the use and functioning of clean-up equipment, if the trainee is the person who is responsible for cleaning up leaks and spills of the toxic substance).

Finding the Information Required for Specific Substance Training

To find the information that must be taught regarding each toxic substance, the employer may consult sources that include the following:

1. The **manufacturer**, including the most recent Material Data Safety Sheet (MSDS) for the toxic substance, if such an MSDS is available. An MSDS is often an excellent source of information, but it may not provide all of the required information.

For example, if an MSDS says something like “clean-up spills in accordance with EPA requirements,” that is insufficient to comply with an employer’s “Right to Know” training responsibilities. A trainee must be informed of the specific procedures that must be followed when leaks or spills occur. If the trainee is not responsible for cleaning up a leak or spill of a toxic substance to which the trainee is routinely exposed, the training must include the procedures for contacting the person who is responsible for cleaning up such leaks and spills. Each trainee must also be taught the specific procedures that the trainee may use in his or her individual workplace to obtain an **MSDS**.

- Moreover, a “**manufacturer, importer, producer or formulator** of any toxic substance shipped or transported or sold for any use within the state must provide” the information that must be included in specific-substance training, including “procedures for cleanup of leaks and spills of such toxic substances.” Labor Law § 876(4).

2. The Health Hazard Evaluation Program of the National Institute of Occupational Safety and Health (“NIOSH”).

For further information, click on <http://www.cdc.gov/niosh/hhe>, call (800)356-4674 or (513)841-4428, or write to NIOSH's Division of Surveillance, Hazard Evaluations, and Field Studies at 4676 Columbia Parkway, Mailstop R12, Cincinnati, Ohio 45226.

3. The Federal Environmental Protection Agency’s (EPA's) information networks.

For further information, click on <http://www.epa.gov/epahome/hotline.htm>, call (202)554-1404, or write to the EPA's Information Resources Center at 1200 Pennsylvania Avenue N.W., Washington, D.C. 20004.

4. The New York State Department of Health.

As of November 2006, the NYS Department of Health was not providing specific guidance concerning "Right to Know" training programs. To see if that has changed, or for further information, click on <http://www.health.state.ny.us> or call 1-800-458-1158, or write to the NYS Dept. of Health, Corning Tower, Empire State Plaza, Albany, New York 12237.

Each trainee must be informed during **each training session** of these four sources of information, and for the latter three, their addresses and telephone numbers.

- other good sources of information that may assist employers and employees in learning more about the toxic substances to which the employees are routinely exposed can be found through the links collected at http://www.pef.org/healthandsafety/chem_links.htm

VI) Each Training Session Must Conducted By a Qualified Trainer.

New York State law requires public employers to use only qualified “Right to Know” trainers.

Recommended considerations in determining whether a trainer is qualified include:

Whether the trainer is familiar with the **scientific principles** pertaining to the information that must be conveyed during the supplemental training;

Whether the trainer has received **instruction** in conducting training sessions;

Whether the trainer is **familiar** with the **specific toxic substances** in the trainees' individual workplace environments; and

Whether the trainer has **in-depth knowledge** of **each training module** that will be used during each training session that the trainer gives.

Training the Trainers - Caveat

Public employers must understand that this guide may assist them in constructing the portions of their “Right to Know” training programs that address the specific toxic substances to which the trainees are routinely exposed, but **whether their specific substance training complies** with the law depends, in large part, on the information that the employer gathers regarding the specific toxic substances to which the trainee is routinely exposed and whether that information is presented to the trainees effectively.

VII) Legislative Intent Is the Touchstone

The New York State Statutes creating "Right to Know" training requirements contain explicit statements of legislative intent. The legislature found that:

“[T]he tragic results of” on-the-job exposure to toxic substances “may not be realized **for years or even generations.**” Employees must be trained in the “**known and suspected health hazards** which may result from working with toxic substances so that they may make more knowledgeable and reasoned decisions with respect to the **continued personal costs** of their employment and the **need for corrective action.**” In addition, the “workplace often provides an **early warning mechanism for the rest of the environment.**” “Therefore, the legislature intends by [the “Right to Know” laws] to ensure that employees be given information concerning the nature of the toxic substances with which they are working and **full information** concerning the **known and suspected health hazards** of such toxic substances.” New York State Laws 1980, ch. 551, section 1 (Emphasis added).

Public employers should keep these concerns in mind when they are creating, maintaining, and revising "Right to Know" training modules for their employees. "Right to Know" training programs are not easy to create, and keeping the programs in compliance with the law may be very time-consuming. But in light of the potentially serious, long-lasting consequences of working with toxic substances, complying with the "Right to Know" laws is well worth the effort. The New York State Attorney General's Office vigorously enforces the "Right to Know" laws.

APPENDIX D

Public Employees Job Safety & Health Protection

The New York State Public Employee Safety and Health Act of 1980 provides job safety and health protection for workers through the promotion of safe and healthful working conditions throughout the State. Requirements of the Act include the following:

Employers

Employers must provide employees with a workplace that is:

- free from recognized hazards,
- in compliance with the safety and health standards that apply to the workplace, and
- in compliance with any other regulations issued under the PESH Act by the Commissioner of Labor.

Employees

Employees must comply with all safety and health standards that apply to their actions on the job. Employees must also comply with any regulations issued under the PESH Act that apply to their job.

Enforcement

The New York State Department of Labor administers and enforces the PESH Act. The Commissioner of Labor issues safety and health standards. The Department's Division of Safety and Health (DOSH) has Inspectors and Hygienists who inspect workplaces to make sure they are following the PESH Act.

Inspection

When DOSH staff inspect a workplace, a representative of the employer and a representative approved by the employees must be allowed to help with the inspection. When there is no employee-approved representative, DOSH staff must speak with a fair number of employees about the safety and health conditions in the workplace.

Order to Comply

If the Department believes an employer has violated the PESH Act, we will issue an order to comply notice to the employer. The order will list dates by which each violation must be fixed. If violations are not fixed by those dates, the employer may be fined.

The order to comply must be posted at or near the place of violation, where it can be easily seen. This is to warn employees that a danger may exist.

Complaint

Any interested person may file a complaint if they believe there are unsafe or unhealthful conditions in a public workplace. This includes:

- An employee
- A representative of an employee
- Groups of employees
- A representative of a group of employees

Make this complaint in writing to the nearest DOSH office or by email to: Ask.SHNYPESH@labor.ny.gov. On request, DOSH will not release the names of any employees who file a complaint. The Department of Labor will evaluate each complaint. The Department will notify the person who made the complaint of the results of the investigation.

These complaints may also be made to the United States Department of Labor, Occupational Safety and Health Administration online at: www.osha.gov.

Discrimination

Employees may not be fired or discriminated against in any way for filing safety and health complaints or otherwise exercising their rights under the Act.

If an employee believes that they have been discriminated against, he or she may file a complaint with the nearest DOSH office. File this complaint within 30 days of the discrimination incident.

Voluntary Activity

The Department of Labor encourages employers and employees to voluntarily:

- reduce workplace hazards, and
- develop and improve safety and health programs in all workplaces.

The Division of Safety and Health can provide free help with identifying and correcting job site hazards. Employers may request this assistance on a voluntary basis by emailing: Ask.SHNYPESH@labor.ny.gov.

Additional information may be obtained from the nearest DOSH District Office below:

Albany District

State Office Campus
Bldg. 12, Rm. 158
Albany, NY 12240
Tel: (518) 457-5508

Binghamton District

44 Hawley St., Rm. 901
Binghamton, NY 13901
Tel: (607) 721-8211

Buffalo District

65 Court Street
Buffalo, NY 14202
Tel: (716) 847-7133

Garden City District

400 Oak Street
Garden City, NY 11550
Tel: (516) 228-3970

New York City District

75 Varick St., 7th Floor
New York, NY 10013
Tel: (212) 775-3554

Rochester District

109 S. Union St., Rm. 402
Rochester, NY 14607
Tel: (585) 258-8806

Syracuse District

450 South Salina Street
Syracuse, NY 13202
Tel: (315) 479-3212

Utica District

207 Genesee Street
Utica, NY 13501
Tel: (315) 793-2258

White Plains District

120 Bloomingdale Road
White Plains, NY 10605
Tel: (914) 997-9514

Post Conspicuously

A Division of the New York State Department of Labor

YOU HAVE A RIGHT TO KNOW!

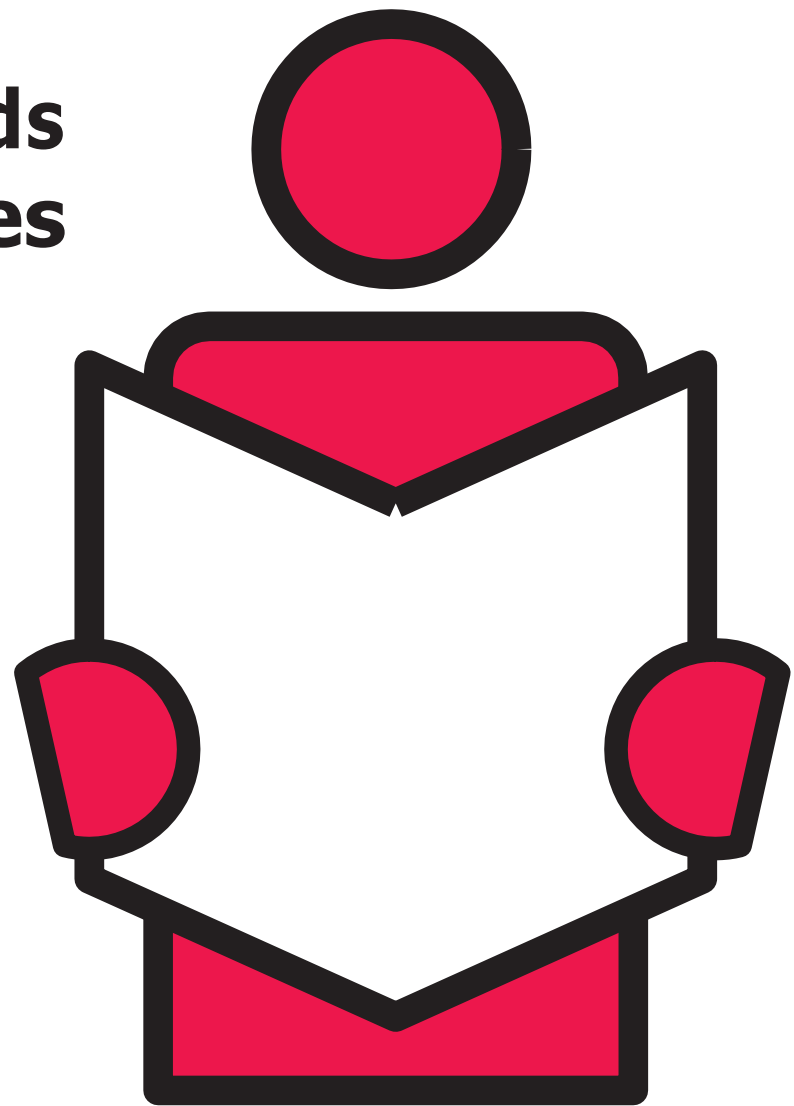
**Your employer must inform
you of the health
effects and hazards
of toxic substances
at your
worksite.**

**Learn all
you can
about toxic
substances
on your job.**

For more information contact:

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