ILLINOIS INSTITUTE OF TECHNOLOGY SAFETY POLICY COMMITTEE

Hazard Communication Program

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TABLE OF CONTENTS

Section		Page
1.	Purpose	1
2.	Definitions	1
3.	Responsibilities	2
4.	Procedures A. Written Program	2
	B. Training Program	3
	C. Labeling Requirements	5
	D. Evaluation and Distribution of Safety Data Sheets	7
	E. Non-University Employees Program	7
	F. Trade Secrets	7
	G. Piping	7
	H. Non-Routine Tasks	8
5.	Approval	8

1. PURPOSE

Illinois Institute of Technology ("IIT") seeks to ensure that the hazards of all chemicals used within its facilities are evaluated and that information concerning their hazards is transmitted to all affected employees. This Hazard Communications Program (the "Program") is intended to address the issues of evaluating the potential hazards of chemicals, communicating information concerning these hazards and establishing appropriate protective measures for employees, students, contractors and others working on our campus. (REGULATORY STANDARD: OSHA - 29 CFR 1910.1200)

2. **DEFINITIONS**

<u>Chemical</u> means any element, chemical compound or mixture of elements and/or compounds.

Employee means an IIT worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers, such as office workers, who encounter hazardous chemicals only in non-routine or isolated instances, are not covered.

Exposure or exposed means that an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption) and includes potential (accidental or possible) exposure.

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers or failure of control equipment, which could result in an uncontrolled release of a hazardous chemical into the workplace.

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

<u>Hazard warning</u> means any words, pictures, symbols or combination thereof appearing on a label or other appropriate form of warning which convey the hazard(s) of the chemical(s) in the container(s).

Health hazard refers to the property of 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 and neurotoxins agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes, or mucous membranes.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

<u>Safety data sheet (SDS)</u> is a written electronic or printed document describing a hazardous chemical which is prepared in accordance with 29 CFR 1910.1200, paragraph (g).

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.

<u>Specific chemical identity</u> means the chemical name, Chemical Abstracts Service (CAS) Registry Number or any other information that reveals the precise chemical designation of the substance.

<u>Unstable (reactive)</u> means a chemical which in its pure state, or as produced or transported, will vigorously polymerize, decompose, condense or become self-reactive under conditions of shocks, pressure or temperature.

<u>Water-reactive</u> means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard. (Notes: Often when the water is heated it goes into a gaseous state allowing oxygen to be released which can help feed a fire.)

<u>Work area</u> means a room or defined space in a workplace where hazardous chemicals are produced or used and where employees are present.

<u>Work place</u> means an establishment, job site or project, at one geographical location, containing one or more work areas.

3. **RESPONSIBILITIES**

The IIT Director of Environmental Health and Safety ("DEHS") has responsibility to oversee all facets of this Program and has the authority to make necessary decisions related thereto. The DEHS may halt any operation where there is danger of serious personal injury. Each department must designate a safety officer ("DSO"), who will work with the DEHS to implement this standard, and he or she should be given sufficient authority to ensure his or her ability to perform his or her duties.

4. **PROCEDURES**

- A. <u>Written Program</u>. This Program will be maintained in accordance with 29 CFR 1910.1200 and updated as required due to changes in the OSHA Hazard Communication Standards. In any event, this Program will be reviewed at least annually. Effective implementation of this Program requires that it be communicated to all personnel affected by it, as the Program is intended to encompass the total workplace. As part of its written program, the DEHS or designee in consultation with and with the assistance of the DSOs will:
 - 1. Provide a program for the proper labeling of containers, describing other needed forms of warning, and detailing the use and purpose of SDSs.
 - 2. Describe how employee information and training requirements will be met, including:

a. Generating a list of potentially hazardous chemicals known to be present in each department using an identity that is referenced from the appropriate SDS. This list should be available to all employees in the facility and be located in the facility's "Worker Right-To-Know Center".

b. Detailing the method to be used to inform employees of the hazards of nonroutine tasks. Immediate supervisors of affected employees will oversee this requirement. The DEHS may be consulted to provide any task hazard analysis assistance required.

c. Identifying the hazards associated with chemicals contained in process or facility piping routed through work areas. Immediate supervisors of affected employees will oversee this requirement. The DEHS may be consulted to provide any hazard analysis assistance required. Any unlabeled pipes in a work area must be immediately reported to the Facilities Department for labeling.

d. State the methods to be used to inform employees of any precautionary measures that need to be taken to protect employees during normal operating conditions and in foreseeable emergencies. Immediate supervisors of affected employees will oversee this requirement. The Assistant Vice President of Facilities O&M and/or the DEHS may be consulted to provide any task hazard analysis assistance required.

- 3. The DEHS will establish procedures to ensure that the written hazard communication program available to all employees during each work shift.
- B. <u>Training Program</u>. The DEHS or designee in consultation with and with the assistance of the DSOs will provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment, annually and whenever a new chemical is introduced into their work area that could present a potential hazard. Such training program should ensure that:
 - 1. Employees are informed of:
 - a. Any operations in their work area where hazardous chemicals are present.
 - b. The location and availability of the written hazard communication program, including a list of hazardous chemicals used in their work area and the associated SDS. This information will be located in and managed by the individual academic and administrative departments. All employees within a work area will have access to this location and SDS during each shift.
 - 2. Employee hazard communication training should be conducted annually by departments, with the training being conducted by an approved instructor. Newly hired

personnel will be briefed on the general requirements of the OSHA Hazard Communication Standards as well as duty specific hazards by their immediate supervisor before they begin any duties within the department. This training should include at least:

- a. Methods that may be used to detect the presence or release of a hazardous chemical in the work area. This will include any monitoring conducted by IIT, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, or the like. SDS will be used to augment this requirement where ever possible.
- b. The physical and health hazards of the chemicals present in the work area.
- c. The measures that employees can take to protect themselves from these hazards, including specific procedures that have been implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures and personal protective equipment.
- d. An explanation of the labeling system used by the university, the SDS, and how employees can obtain and use the appropriate hazard information.
- e. The chemical (formal) and common name(s) of products used, and all ingredients which have been determined to be health hazards.
- f. Physical and chemical characteristics of the hazardous chemical.
- g. The physical hazards of the hazardous chemical, including the potential for fire, explosion and reactivity.
- h. 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.
- i. The primary route(s) of entry -- inhalation, absorption, ingestion or injection -- and target organs.
- j. The OSHA permissible exposure limit and the ACGIH Threshold Limit Value, including any other exposure limit used or recommended by the chemical manufacturer.
- k. Whether the hazardous chemical has been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC).

- 1. Any generally applicable precautions for safe handling and use which are known, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks.
- m. Any generally applicable control measures which are known, appropriate engineering controls, work practices or personal protective equipment.
- n. Emergency and first aid procedures.
- o. How to determine the date of preparation of the SDS concerned and/or the last change to it.
- p. Specific chemical identity such as the chemical name, Chemical Abstracts Service (CAS) Registry Number, synonyms or any other information pertinent to the training session.
- 3. All training will be documented and employees will be required to sign an attendance form which shows the training subject, the name and contact information for the instructor, the date of instruction and the printed name of the employee as listed on the company roster (no nicknames or abbreviations).
- C. <u>Labeling Requirements</u>. Labeling requirements of containers of chemicals used at IIT as well as of containers of chemicals and hazardous materials being shipped off-site must adhere to the following procedures:
 - 1. No unmarked container containing chemicals may be used in conjunction with any duties or operations at IIT, unless the container is a portable container in the control of a specific person for their immediate use. Container means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank or the like that contains a hazardous chemical. For purposes of this Program, pipes or piping systems, engines, fuel tanks or other operating systems in a vehicle are not considered to be containers.
 - 2. A container labeling kit will be provided to any employee requesting its use. Employees will ensure that labels on incoming containers of hazardous chemicals are not removed or defaced. Containers containing hazardous chemicals will be properly disposed of and the labels defaced after use.
 - 3. The appropriate hazard rating and chemical compatibility charts for label containers will be provided. SDS will be consulted first to determine labeling requirements. The label as a minimum will contain:
 - a. Information concerning the personal protective equipment (PPE) required to use or handle the chemical.

- b. The GHS hazard class i.e., whether the chemical is Flammable, Toxic, Irritating, Corrosive, Water Reactive or is an Oxidizer.
- c. The chemical name as shown on the SDS.
- 4. Labeling will not be required if one of the exception listed below applies. Any questions concerning any of the exceptions should be directed to the DEHS. IIT generally should not be affected by these requirements, however, they are provided for information and because they are included in the OSHA Hazard Communication Standards. Specifically, the OSHA Hazard Communication Standards does not require labeling of the following chemicals:

a. Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 *et seq.*), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

b. Any food, food additive, color additive, drug, cosmetic or medical or veterinary device, including materials intended for use as ingredients in such products (e.g. flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 *et seq.*) and regulations issued under that Act, when they are subject to the labeling requirements under that Act by the Food and Drug Administration;

c. Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 *et seq.*) and regulations issued under that Act, when subject to the labeling requirements of that Act and regulations issued under that Act by the Bureau of Alcohol Tobacco, and Firearms; and

d. Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 *et seq.*) and Federal Hazardous Substances Act (15 U.S.C. 1261 *et seq.*) respectively, when subject to a consumer product safety standards or labeling requirements of these acts, or regulations issued under these acts by the Consumer Product Safety Commission.

e. Where materials are classified as hazardous waste they fall under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 *et seq.*), and its implementing regulations. As such, these materials will be subject to regulations issued under this act by the Environmental Protection Agency.

D. Evaluation and Distribution of Safety Data Sheets.

- 1. All employees ordering and/or supervising the use of hazardous chemicals must maintain copies of any SDSs that are received with incoming shipments of the sealed containers of hazardous chemicals, should obtain a SDS for sealed containers of hazardous chemicals received without a SDS if an employee requests the SDS, and must ensure that the SDSs are readily accessible during each work shift.
- 2. Master copies of each SDS will be maintained in the DEHS's office.
- 3. Right-To-Know (worker) copies will be available to all employees in the facility, and located at a minimum in all affected departmental offices. Additionally, a list of the hazardous chemicals known to be present in each department using an identity that is referenced from the appropriate material safety data sheet will be located in the DEHS's Office. IIT will ensure a system is in place to maintain a current set of SDSs.
- 4. SDS copies will be maintained for all chemicals abandoned for use for a period of thirty (30) years.
- 5. A request letter will be forwarded to any vendor who does not provide an SDS with the shipped product. The letter will be forwarded within five (5) business days of receipt of the material.
- E. <u>Non-University Employees Program</u>. The principal university escort or contact will advise visitors, contract employees and contractor personnel of any chemical hazards that may be encountered in the normal course of their work or visit on the premises, the labeling system in use, the protective measures to be taken, the safe handling procedures to be used and availability of SDSs. Any contractor bringing chemicals on-site must provide the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals. Consult with the DEHS where this determination is unclear or assistance is required.
- F. <u>Trade Secrets</u>. To protect trade secrets, the chemical manufacturer, importer or employer may withhold the specific chemical identity, including the chemical name, and other specific identification of a hazardous chemical from the SDS. To ensure the safety of university employees, the DEHS or designee will obtain any information not shown on a SDS from a supplier, when such information is needed to determine the hazardous constituents of chemicals used within its facility or by its employees. Employees will not use a specific chemical if they cannot determine from the SDS (or other approved source) proper protective measures to be used.
- G. <u>Piping.</u> Process piping containing hazardous materials will be labeled to identify the material present, the direction of the flow and the maximum pressure achieved in the system.

H. <u>Non Routine Tasks</u>. No employee will be allowed to perform tasks that they are not fully trained to accomplish. Non-routine tasks will be evaluated by the employee's supervisor prior to the start of work and the related hazard(s) assessed to develop protective measures.

5. APPROVAL

The IIT Safety Policy Committee has reviewed and recommend the adoption of this Program on July 18, 2005, and this Hazard Communication Program is approved and effective this 10th day of October 2005. The Safety Policy Committee will review the contents, implementation and effectiveness of this Program no less than annually (but as often as necessary) and will make modifications as necessary to ensure that it meets all required legal and regulatory requirements and is adequately providing a safe and healthful environment for IIT faculty, employees and students. Any modifications to this policy have been reviewed and approved, and are effective as of the date noted on the cover page.

- By: <u>/s/ Alan W. Cramb</u> Provost and Senior Vice President
- By: <u>/s/ John P. Collins</u> Vice President for Business & Administration