ACCELERATOR DIVISION ES&H PROCEDURE

ADSP-05-0510

ACCELERATOR DIVISION HAZARD COMMUNICATION PROGRAM

RESPONSIBLE DEPARTMENT ES&H

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1.0 PURPOSE AND SCOPE

The purpose of this program is to establish procedures for implementing Fermilab's Hazard Communication Program and to increase employee's awareness regarding potential health and physical hazards involving chemicals used in the Accelerator Division work areas.

2.0 REFERENCES

2.1 29 CFR 1910.1200 Hazard Communication Standard (general industry)

2.2 29 CFR 1926.59 Hazard Communication Standard (construction)

2.3 FESHM - Chapter 5051 Hazard Communication Program

2.4 BDDP-SH-3000, Material Safety Data Sheet Management

3.0 DEFINITIONS

3.1 Article - is a manufactured item that is formed to a specific shape or design during manufacture. It has end use function(s) dependent in whole or in part upon its shape or design during end use. It does not release or otherwise result in exposure to a hazardous chemicals under normal conditions of use.

If the hazardous chemicals will remain bound in article "under normal conditions of use," then it is exempt from the Hazard Communication Standard. The following examples would be considered "articles", i.e. stainless steel tables, vinyl upholstery, tires, typewriter ribbons, and copying machines.

The following are not "articles" since there is a significant chance for exposure to hazardous chemicals under normal use:

- Metal ingots that will be melted
- Fabric treated with formaldehyde that may "off gas"
- Mercury switches that may break

3.2 Chemical Name - The scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service's (CAS) rules of nomenclature, or a name that will clearly identify a chemical for the purpose of conducting a hazard evaluation

3.3 Consumer Product - any consumer product or hazardous chemical as defined in the Consumer Product Safety Act (15 U.S.C. 2051) and Federal Hazardous Substances Act (15 U.S. C. 1261) respectively. Such products are exempt from the Hazard Communication Standard where the ES&H Section can demonstrate it is used in the workplace in the same manner as normal consumer use, and which use results in a duration and frequency that is not greater than exposures experienced by consumers. Containers of chemically hazardous consumer products are labeled with the names of the hazardous components, a signal word ("DANGER," "WARNING," "CAUTION"), a statement of the principal hazard(s) ("Flammable," "Combustible," "Absorbed Through Skin"), actions to be avoided, first aid treatment, handling and storage instructions, and other information as appropriate.

3.4 Hazardous Chemical - a chemical or mixture of chemicals that can produce adverse health effects (e.g., dermatitis, cancer) or adverse physical effects (e.g., fire, explosion) and requires special handling because of the hazards it poses to the public health and the environment.

3.5 Work Area - A room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

3.6 Workplace - an establishment, job site, or project, at one geographical location containing one or more work areas. Fermilab is considered a workplace and consists of multiple work areas.

4.0 RESPONSIBILITIES

4.1 The AD Environment, Safety, and Health Department

a. Will maintain a chemical inventory of hazardous chemicals used and stored in the Accelerator Division.

b. Will review purchase requisitions for chemical purchases

c. Will check the ES&H Section's MSDS database to see if a MSDS is available to review prior to approving the purchase requisition. If the MSDS is not in the database, one will be obtained from either the manufacturer or distributor.

d. Will approve new products for use and if the product is approved, the new MSDS is submitted to the ES&H Section for incorporation into the lab-wide MSDS database.

e. Will send a copy of the approved MSDS to the originator of the Purchase Requisition, AD/ES&H Administrator and the AD Central Purchasing Group.

f. Provides work area-specific hazard communication training or upon request, assists departments in providing training.

g. Reviews completed hazard analysis forms, meets with task managers and/or occasionally attends pre-construction meetings to brief contractors and workers of specific hazards that they may encounter while working in Accelerator Division locations.

4.2 AD Supervisors shall

a. Ensure that all new employees, under their supervision, who work with or around hazardous chemicals, receive general hazard communication training when hired.

b. Ensure that their employees have received work area-specific training prior to being assigned to any new tasks involving exposure to and/or working with hazardous chemicals in their work areas.

c. Provide work area-specific hazard communication training to their employees upon request or arrange for AD/ES&H to provide it.

d. Ensure that MSDSs are readily accessible to employees in their work areas. For a searchable database of all Fermilab MSDSs go to the following ES&H Section's website:

http://www-esh.fnal.gov/pls/ip/msds_search

4.3 AD Employees shall

a. Know the whereabouts of the MSDSs for hazardous chemicals used in their work areas.

b. Ensure that hazardous chemicals are properly labeled.

c. Read and adhere to the precautionary measures outlined on chemical container labels and corresponding MSDSs.

d. Request work-specific training prior to working with unfamiliar hazardous chemicals and/or conditions.

5.0 PROCEDURES

5.1 MATERIAL SAFETY DATA SHEETS (MSDSs)

The ES&H Section maintains a complete file of all MSDSs for hazardous chemicals used and stored at Fermilab. The MSDS file resides in the ES&H Section's office located in Wilson Hall on the seventh floor. To access and search Fermilab's MSDS file electronically or to copy a MSDS, go to the following website:

http://www-esh.fnal.gov/pls/ip/msds_search.html

The AD ES&H Department maintains a MSDS filing system for products used and stored in the Accelerator Division. The MSDS filing system is a subset of the main ES&H MSDS filing system and is located in the AD/ES&H office (second floor, Linac North Annex). MSDSs may be obtained upon request from the AD/ES&H Department.

The AD ES&H Department reviews all purchase requisitions for potential incoming chemical products to ensure that the chemicals are environmentally safe for use at the lab. If a MSDS is not on file (i.e., AD or ES&H Section files), the originator of the purchase requisition will usually attach a copy of the MSDS to the requisition or the AD/ES&H reviewer will request that the originator obtain one from the manufacturer or distributor. The AD/ES&H reviewer will examine the MSDSs for legibility, accuracy and completeness prior to submitting a copy to the ES&H Section. A copy of the MSDS is given to the originator.

5.2 CONTAINER LABELING

All chemicals, pipes, and secondary containers that contain hazardous chemicals and are used or stored in Accelerator Division work areas must be properly labeled. Removal or defacement of a manufacturer's container label is strongly discouraged; however, a container label may be replaced, provided the information on the replacement label is equivalent or superior to the original manufacturer's label.

As a general rule, if a chemical is transferred from its original container into a secondary container, the secondary container should be properly labeled with the full chemical name and hazard warning. The label must be in English. A portable container that contains a chemical and is intended for immediate temporary use (i.e., used only during the same shift) does not require a label. Examples of this include a measuring cup, mixing jug, and transfer container. However, if the transfer container leaves the area and is used somewhere else, it should

be labeled. Employees shall report any container or pipe labeling deficiencies to their supervisors.

Labels and other pertinent warning documentation shall be legible. At a minimum, the following information must be provided on the container label:

- Chemical identity (chemical, product, or trade),
- Appropriate hazard warnings (health and physical hazards),
- Manufacturer's name and address (manufacturers' labels).

The stock room has labels for most common hazardous chemicals used on site. AD/ES&H has labels and can provide assistance in customizing labels, if needed.

6.0 EMPLOYEE INFORMATION AND TRAINING

All active employees at the laboratory have received the one-time mandatory general hazard communication training. New employees will receive the mandatory hazard communication training as part of the "New Employee ES&H Orientation." The training consists of the following:

- Purpose and the requirements of the Hazard Communication Standard,
- How Fermilab complies with the mandatory standard,
- How the program is implemented at Fermilab,
- Methods and observations employees can use to detect the presence of hazardous chemicals and methods to protect themselves from potential hazards and exposures,
- Understanding, interpreting and using hazard information provided on labels and on the MSDS, and
- Fermilab's internal labeling system.

In addition to the general hazard communication training, employees who are identified in their individual training needs assessment as working with hazardous chemicals shall receive work area-specific training. This is provided to new employees when their duties require it, and existing employees when their duties change or whenever a new chemical hazard is introduced to their work area. The training is usually conducted by the AD ES&H Industrial Hygienist or the employee's supervisor. The training will include the following information:

- Specific location of the area's MSDSs and local chemical emergency procedures and emergency eyewash stations,
- Hazards associated with the chemical,
- Appropriate methods and personal protective equipment for protection against physical and chemical hazards, and
- Methods and observations to detect the presence or release of chemical hazards.

7.0 DISTRIBUTION

The written Accelerator Division Hazard Communication Program is accessible to all AD employees and workers. To obtain a copy or review the procedure, go to the following AD/ES&H website link, and double click on ADSP-05-0510. **Printed copies are not controlled.**

http://www-bdnew.fnal.gov/esh/adsp/ADSP-05-0510.pdf