

# **Guidelines for the Management of Chemicals at Sector 7.**

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## **ROLES AND RESPONSIBILITIES**

### **Experiment Spokespersons will:**

- Provide the Sector 7 Chemical Safety Coordinator with an appropriate MSDS and timely advanced notice of the need to use chemicals;
- Become familiar with the hazards associated with the chemicals and ensure that the information is communicated to the persons working with the chemicals; and
- Become familiar with appropriate hazard controls and ensure that required controls are in place before workers begin using the chemicals.

### **Chemical Users will:**

- Become familiar with the hazards associated with the chemicals before using them, and
- Become familiar with the hazard controls for the intended application of the chemicals and verify proper functioning of such controls before chemical usage begins.

### **The Chemical Safety Coordinator will:**

- Maintain an awareness of chemical-related activities conducted in the spaces under his/her control;
- Periodically verify the proper functioning of the engineered controls and the proper maintenance of storage facilities; and
- Periodically verify the proper labeling of chemicals stored in their facilities and enter any new chemical purchases in the ANL Chemical Management System.

## **CONTROLS ON THE INTRODUCTION AND USAGE OF CHEMICALS**

### **Chemical Purchase**

Upon acquisition of a chemical, the Chemical Safety Coordinator will add the Material Safety Data Sheets for the chemicals in the respective MSDS book located outside of the chemical lab. Sector 7 will also rely on information gathered from its Experiment Safety Review process to alert it to the planned use of hazardous chemicals.

## **Review Criteria**

Sector 7 personnel reviewing the proposed new usage of a chemical in the facilities will consider the following issues:

- Availability of suitable storage facilities;
- Adequacy of existing engineered controls;
- Adequacy of existing procedures and need for the chemical and relevant quantities;
- Waste handling capability and needs.

## **HAZARD COMMUNICATION**

### **Material Safety Data Sheets (MSDS)**

No chemical will be stored at the Sector 7 facilities without a current, manufacturer-provided MSDS. All Sector 7 personnel and authorized users will have access to MSDS's either through hard-copy located outside each LOM chemical lab or electronically through the ANL Chemical Management System.

### **Container Labels**

Typically, Sectors 7 will rely on the veracity, accuracy, and sufficiency of the manufacturer-affixed labels on the original containers. If Sector 7 personnel transfer hazardous chemicals to other containers, those containers shall be labeled with an NFPA-704 conforming label with the following information:

- The name of the chemical that appears on the original container and the Material Safety Data Sheet; and
- Appropriate hazard warnings, including known health effects.

### **Training**

Sector 7 requires that all personnel using its chemical facilities successfully complete any required safety training as specified by their JHQ and/or the Experiment Safety Approval Form. The Experiment Spokesperson is responsible for providing personnel working under his/her direction with the following information:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area;
- The physical and health hazards of chemicals in the work area; and

- The measures that can be taken to protect oneself from these hazards, including specific procedures, the use of personal protective equipment, engineered controls and appropriate emergency procedures.

## **Sectors 7 Guidelines for the Management of Hazardous Waste**

### **Applicability and Scope**

This guideline applies to all personnel working at the sector facilities and to materials that are considered as hazardous waste or might reasonably be predicted to become hazardous waste. It does not address radioactive materials.

### **Roles and Responsibilities of Waste Generators**

- Communicate anticipated waste storage requirements to the Chemical Safety Coordinator;
- Minimize the volume and toxicity of wastes through advanced planning and control of work methods;
- Manage the handling and documentation of waste.
- Establish process controls capable of ensuring that non-radioactive materials are not activated or contaminated with radioactive materials;
- Maintain pertinent information about the hazardous waste.
- Properly label hazardous waste containers, providing the name of the waste generator, the container's contents, and the percentages by volume of each hazardous waste;
- Properly package and store the container in the approved Satellite Accumulation Area;
- Inform the Chemical Safety Coordinator if the stored waste requires disposal; and

### **Chemical Safety Coordinator**

- Complete Chemical Waste Generator Training (ESH Course #574) and Waste Certification Training (ESH Course #456).
- Inform the Sector's APS Floor Coordinator about planned activities that are expected to generate non-routine or large quantities of hazardous wastes;
- Arrange for required containers for expected hazardous wastes; and

- Maintain a supply of WMO-197 forms and SAA Inspection Checklists (These are available from the Office of the XFD ES&H Coordinator).
- Provide guidance on the use of SAAs in the D030 laboratory;
- Ensure that all hazardous wastes are properly stored and labeled;
- Arrange for disposal by ANL EMO – Waste Management Operations

## **Waste Hazard Controls**

### **Planning**

Sector 7 will advise all personnel working at its facilities, including all visiting users, of the importance of maintaining process knowledge so that wastes can be certified as required by the *ANL Waste Handling Procedures Manual*. The Chemical Safety Coordinator will use this information to arrange for the proper handling, storage, and disposal of the wastes. These arrangements include requesting appropriate storage containers from the ANL Waste Management Operations group.

### **Waste Accumulation Areas**

The Sector 7 Chemical Safety Coordinator will maintain a Satellite Accumulation Areas (SAA). A description of requirements for SAAs is available from the Office of the XFD ES&H Coordinator.

### **Waste Logbooks**

Persons responsible for SAAs shall keep a waste logbook to document inspection data (including dates, findings, and the identity of the person performing inspections) and additions of wastes to the SAA (including dates, the identities of the materials, approximate amounts, the identities of the containers to which materials are added, and the names of persons making entries).

### **Waste Receptacles**

Waste generators shall use the containers provided by ANL Waste Management Operations to hold wastes awaiting disposal. The waste generators shall label the containers according to instructions provided by the Chemical Safety Coordinator.

Any person who creates unforeseen hazardous waste should immediately contact the Chemical Safety Coordinator who, in turn, will arrange for a container and for the proper disposal of the waste. Under no circumstances should a person add a waste to any container other than one assigned for the disposal of that waste.

## **Waste Certification**

Sectors 7 personnel will base waste certification on reliable process knowledge. When such knowledge is lacking, the Chemical Safety Coordinator will arrange for an analysis of a container's content as specified by ANL Waste Management Operations.