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***Aerospace Medicine***

**WORK CENTER WRITTEN HAZARD  
COMMUNICATION PROGRAM**

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This instruction implements Air Force Policy Directive (AFPD) 48-1, *Aerospace Medical Program*; and applies to Buckley Air Force Base (AFB), collocated operating bases, ranges, tenants, and geographically separated units supported by Buckley AFB. This instruction implements Department of Defense Instruction (DoDI) 6055.5, *Industrial Hygiene and Occupational Health*, the Air Force Occupational Safety and Health (AFOSH) Standard 161-21, *Hazard Communication Program (HAZCOM)*, and meets the requirements of Occupational Safety and Health Administrations (OSHA) Hazard Communication Standard 29 CFR. 1910.1200. This instruction does not apply to products, personnel, and work areas specifically exempted in the introduction of AFOSH Standard 161-21. This instruction shall serve as the work center "Written Hazard Communication Program." It provides a template for work center specific training and standardizes documentation filing requirements for base-wide consistency and simplification of quality control assessments. See **Attachment 1** for a glossary of references and supporting information.

Maintain and dispose of records created as a result of prescribed processes in accordance with Air Force Manual (AFMAN) 37-139, *Records Disposition Schedule* (will convert to AFMAN 33-322, **Volume 4**). Comply with Air Force Instruction (AFI) 33-332, *Air Force Privacy Act Program*, for documents containing "Privacy Act Information." For "Official Use Only" information comply with Department of Defense Regulation (DoD) 5400.7-R/AFSUP, *DoD Freedom of Information Act Program*, **Chapter 4**.

## **1. Introduction.**

### **1.1. Purpose.**

1.1.1. The Air Force Hazard Communication Program (AFHCP) is a DoD directed program consisting of a written program, hazard determination, Material Safety Data Sheets (MSDS), hazardous materials labeling, employee education and training, and hazardous chemical inventories. The basic premise of the AFHCP is that a work force informed of hazardous materials and the necessary controls will be less prone to injury or illness by these physical or chemical agents. The train-

ing, labeling, chemical inventory, and the MSDS requirements of this program enhance material hazard awareness of workers and supervisors. This in-turn will increase worker productivity and will result in decreased worker compensation costs.

1.1.2. This instruction, combined with the Employee Training Plan, hazardous material list, and non-routine task listing, serves as the work center's written hazard communication program in accordance with AFOSH Standard 161-21.

## 2. Responsibilities.

### 2.1. Unit Commanders.

2.1.1. Ensure supervisors and employees who handle, use, or are potentially exposed to hazardous materials in the course of official Air Force duties are trained (reference training requirements of paragraph 7.).

2.1.2. Ensure supervisors comply with the requirements of this instruction.

### 2.2. Supervisors.

2.2.1. Attend Supervisor's Federal Hazard Communication Training at Buckley AFB. This one-time training class will provide supervisors with the knowledge to implement the Federal Hazard Communication Program in their work center and the tools to train their employees. This training is provided by Public Health [PH (460 MDS/SGPM)].

2.2.2. Ensure all personnel assigned to the work area receive HAZCOM training for their work area before employees handle or are occupationally exposed to hazardous materials. Personnel must be trained upon initial work area assignment and whenever a new hazard is introduced into the work area. Document all HAZCOM training on AF Form 55, **Employee Safety and Health Record**.

2.2.3. Determine whether the type and quantity of a hazardous material used in the work center qualifies the item to be exempted as a "consumer use" item, in accordance with AFOSH Standard 161-21, paragraph G. Bioenvironmental Engineering Section [BES (460 MDS/SGPB)] will help with this determination.

2.2.4. Ensure that all material including bypass material is labeled in accordance with paragraph 6. of this instruction.

2.2.5. Perform quality assurance reviews as necessary to maintain compliance with this instruction. Examples of quality assurance checklist provided at **Attachment 2**, Hazard Communication Program Evaluation.

2.2.6. Maintain a HAZCOM Binder and MSDS Binder containing all documentation listed below. Each binder should be tabbed in the format listed. Contents of tabs may be maintained in another location and cross-referenced. Work centers with small chemical inventories may integrate all information into one binder. The supervisor must ensure the binders are easily accessible to all personnel during all work shifts (such as being located on a designated safety board) and ensure personnel are aware of the location.

#### 2.2.6.1. HAZCOM Binder format:

2.2.6.1.1. Tab A. HAZCOM Trainer Certification (from Public Health).

2.2.6.1.2. Tab B. AFOSH Standard 161-21, Hazard Communication.

2.2.6.1.3. Tab C. 460 ABWI 48-121, Work Center Written Hazard Communication.

2.2.6.1.4. Tab D. Employee Education and Training Plan.

2.2.6.1.5. Tab E. Non-Routine Task Listing (or statement of no non-routine tasks).

2.2.6.1.6. Tab F. Bioenvironmental Engineering Section Survey Reports.

2.2.6.1.7. Tab G. Additional Information (i.e. Supervisors Quality Control Checklists).

2.2.6.2. MSDS Binder format:

2.2.6.2.1. Tab A. Air Force Environmental Management Information System (AF-EMIS) Authorization Listing (Hazardous Chemical Inventory).

2.2.6.2.2. Tab B. List of "Consumer Use" Products Used by the Work center.

2.2.6.2.3. Tab C. AF Forms 3952, **Chemical/Hazardous Material Authorization Request**.

2.2.6.2.4. Tab D. MSDSs.

2.2.6.3. Develop a supplemental, work area specific employee education and training plan which provides detailed information on all areas required in paragraph 7. of this instruction. An example plan is provided at [Attachment 3](#), Employee Information and Training Plan.

2.2.6.4. Establish a list of non-routine tasks performed in the work area for all operations which involve the use of hazardous materials. If non-routine tasks are not performed, a signed statement such as "Non-routine tasks involving the use of hazardous materials are not projected to be performed in this work area" must be filed in the HAZCOM binder. The supervisor will ensure either work area Operating Instructions (OIs) or technical orders describe non-routine tasks, associated hazards and controls. Supervisor will ensure workers review these procedures before performing non-routine tasks.

2.2.6.5. Maintain a copy of BES survey reports, annual updates, and other special surveys. These reports must be maintained for a minimum of 10 years.

2.2.6.6. Maintain a current copy of the AF-EMIS User Authorization Listing. This listing will serve as the work center hazardous material list and must be updated whenever a new chemical is introduced into the work area.

2.2.6.7. Supervisors will establish a list of items considered consumer use on a separate inventory list filed in the HAZCOM binder. Consumer use items are exempt from HAZCOM and AF-EMIS tracking requirements.

2.2.6.8. Obtain a current MSDS for each hazardous material used in the work area. The MSDS must be specific to the manufacturer and national stock number of the item used, and must be obtained prior to requesting authorization for local purchase items. A hardcopy MSDS must be maintained in the workcenter MSDS binder.

### 2.3. Bioenvironmental Engineering Section (SGPB).

2.3.1. Provide assistance to base personnel, as requested, in obtaining a current MSDS and in making "hazardous material" and "consumer use" determinations.

- 2.3.2. Advise organizations and base personnel on labeling of containers.
- 2.3.3. Provide technical assistance to Public Health (PH) and other formal organizational training structures conducting supervisor training on the Federal Hazard Communication Program.
- 2.3.4. Provide work area supervisors technical assistance, as requested, in identifying non-routine tasks involving hazardous materials and in establishing and maintaining the workplace Hazard Communication Program.
- 2.3.5. Provide guidance to work center supervisors in determining “consumer use” products.
- 2.3.6. Review work area programs with industrial case files during routine industrial hygiene assessments.
- 2.3.7. Provide health risk assessments for all hazardous materials through work area evaluations and advise supervisors on the specific hazards of materials.

#### **2.4. Public Health (SGPM).**

- 2.4.1. Provide initial Supervisor Federal Hazard Communication Training to all supervisors of industrial work centers. Provide written certification for all individuals trained.
- 2.4.2. Provide technical assistance to work area supervisors for training employees.

#### **2.5. Contracting Office.**

- 2.5.1. Comply with paragraph **8.** of this instruction.
- 2.5.2. Ensure that all contracts for which the Air Force locally procures potentially hazardous materials, include “Hazardous Material Identification and Material Safety Data,” of the Federal Acquisition Regulation (FAR) 23.303, clause 52.223-3.
- 2.5.3. Advise contractors of the hazardous chemicals they may encounter on the base during the contract performance. BES can help provide this information.
- 2.5.4. At the pre-performance conference, and subsequently during the contract performance period, the requiring activity quality assurance personnel will advise work area supervisors and Air Force employees of hazardous chemicals introduced by the contractor. The contractor is required to submit information on the use of hazardous materials according to FAR 23.303, clause 52.223-3.
- 2.5.5. Ensure that all contract requirements comply with Title 29, CFR, 1910.1200.

### **3. Hazard Determination.**

- 3.1. Health risk assessments for all hazardous materials will be conducted by BES.
- 3.2. Work center supervisors are responsible for determining whether the type and quantity of a hazardous material used in the work center qualifies as a “consumer use” item, in accordance with AFOSH Standard 161-21, paragraph **G.** Bioenvironmental Engineering will provide assistance in this determination.

### **4. Material Safety Data Sheets (MSDSs).**

- 4.1. The AF-EMIS, in combination with the Hazardous Material Information System (HMIS) will serve as the Buckley AFB master MSDS database.

- 4.2. The work area MSDS file or database must be readily available to all workers during all shifts.
- 4.3. BES will provide guidance in interpreting information contained in a MSDS and provide assistance in procuring a MSDS for hazardous materials.

## 5. Labels and Other Forms of Warning.

5.1. All hazardous material containers brought onto or used within the confines of Buckley AFB will be labeled, tagged, or marked with the following information:

- 5.1.1. Identity of the hazardous materials (i.e. material name, stock number and or part number).
- 5.1.2. Appropriate hazard warnings (i.e. health, fire or reactivity hazards and severity as listed on the MSDS and areas of the body to protect such as eyes, skin or respiratory tract).
- 5.1.3. Name, address, and phone number of the manufacturer, importer, or other responsible party.

5.2. DD Form 2521, **Hazardous Chemical Warning Label (8"x11")** or DD Form 2522, **Hazardous Chemical Warning Label (4"x6")** when available, will be used as a uniform labeling system to meet the labeling requirements for:

- 5.2.1. Existing stocks of unlabeled materials.
- 5.2.2. Hazardous materials manufactured within the Air Force.
- 5.2.3. Transferring, repackaging or distributing of bulk quantities of hazardous materials into other containers (breakdown quantities). The exception for this rule is when a material is placed in an unmarked container and used or returned to the original container after task completion or within one work shift, whichever is sooner.
- 5.2.4. Relabeling hazardous material containers in accordance with paragraph 6.1. above when labels have been accidentally defaced or lost.

5.3. The sources for this labeling information are:

- 5.3.1. HMIS labeling field.
- 5.3.2. Label on bulk or packaged containers.
- 5.3.3. Hard copy of the manufacturer's MSDS.
- 5.3.4. Manufacturer, importer, or other responsible party.

5.4. Label all tanks with the name of the material it contains. This will ensure noncompatible materials are not accidentally added to the tank or vat.

## 6. Employee Information and Training.

6.1. All workers will be trained on the AFOSH STD 161-21.1W, "*Federal Hazard Communication Training Program (FHCTP), Student's Workbook,*" and video program, containing the elements of the FHCTP. This training must be accomplished before the workers handle or are occupationally exposed to hazardous materials. This training may be provided by trained supervisors or other formal organization training structures.

6.2. Supervisors or other designated trainers must be trained and certified by Public Health before they are authorized to provide training to workers.

6.3. Prior to starting work, each newly assigned person will receive a health and safety briefing and orientation that includes the following information and training. Example training plan is provided at [Attachment 3](#).

- 6.3.1. An overview of the requirements contained in the Hazard Communication Standard.
- 6.3.2. Location of the HAZCOM Binder and MSDS file or database.
- 6.3.3. Hazardous materials present in the work area.
- 6.3.4. How to read labels and review MSDSs to obtain hazard information.
- 6.3.5. Physical and health risks of each hazardous chemical.
- 6.3.6. The symptoms of overexposure.
- 6.3.7. How to determine the presence and/or release of hazardous chemicals in the work area.
- 6.3.8. How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices and personal protective equipment (PPE).
- 6.3.9. Steps taken to reduce or prevent exposure to hazardous chemicals.
- 6.3.10. Spill response procedures and emergency procedures to follow if employees are exposed to hazardous chemicals.

**7. Hazardous Chemical Inventory.** AF-EMIS User Authorization Listing will be used for the work center chemical inventory. This listing must be kept current and must reflect a complete and accurate inventory of all hazardous materials used in the work area.

## **8. Contractor Operations.**

8.1. Contractors working in areas storing or using hazardous materials will be provided the following information:

- 8.1.1. Hazardous chemicals to which they may be exposed while on the job site.
- 8.1.2. Measures the contractor can take to lessen the risk of exposure.
- 8.1.3. Steps the Air Force has taken to reduce the risks.
- 8.1.4. The location of MSDS for the chemicals which are stored or used in the area.
- 8.1.5. Information on how the materials are labeled.

8.2. The Contracting Officer evaluator will advise work area supervisors and Air Force employees monitoring the performance of contractors of hazardous chemicals introduced by the contractor.

- 8.2.1. The contractor is required to submit information on the use of hazardous materials according to FAR 23.303 clause 52.223-3.
- 8.2.2. Contracting is required to ensure that all contract requirements comply with Title 29, CFR, 1910.1200.
- 8.2.3. The Contracting Office will ensure contractors provide a list of hazardous materials to be used during the contract performance to BES before beginning work on Buckley AFB. This task will prevent accidental exposure to AF personnel working adjacent to contract personnel.

**9. Non-routine Tasks Involving Hazardous Materials.**

9.1. The work area supervisor will list non-routine tasks performed in the work area which involve hazardous materials. The supervisor will ensure work area OIs thoroughly describe non-routine tasks, associated hazards, and controls. OIs do not need to be prepared if technical orders or other documents adequately describe these tasks. Supervisors will ensure workers review these procedures before performing a non-routine task.

9.2. When workers temporarily perform duties outside their normal job, the supervisor of the activity will ensure these workers receive the following training prior to beginning the activity:

9.2.1. Supplemental training, as necessary, on specific chemical hazards which will be used or will be at the jobsite.

9.2.2. Measures the worker must take to reduce the risk of exposure at the jobsite and steps already instituted to reduce the risk (e.g., ventilation system).

9.2.3. Location of the MSDSs for chemicals present.

9.2.4. Information contained on the labels.

JAMES A. SANDS, Colonel, USAF  
Commander

## Attachment 1

### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### *References*

OSHA Title 29, Code of Federal Regulations, 1910.1200, *Hazard Communication*

Air Force Instruction (AFI) 32-7086, *Hazardous Materials Management*.

AFOOSH Standard 161-21, *Hazard Communication*.

#### *Abbreviations and Acronyms*

**AF-EMIS**—Air Force Environmental Information System

**BES**—Bioenvironmental Engineering Services

**HAZCOM**—Hazard Communication

**MSDS**—Material Safety Data Sheet

#### *Terms*

**Bypass Material**—Material going directly to the user rather than to the supply receiving function.

**Chemical**—Any element, chemical compound or mixture of elements, or compounds in a solid, liquid, or gaseous form.

**Consumer Commodity**—Product is used in the work center in the same manner as it would be used for household use, with similar duration and frequency of exposure.

**Consumer Use Product**—A product used by a worker in a frequency equal to or less than what a reasonable person would concede to be “normal consumer use” in a home or household environment. Products in this category are exempt from the requirements of the Hazard Communication Program. The work center supervisor, with the help of Bioenvironmental Engineering, is responsible for determining if a product is used in the same manner as normal consumer use. Examples of typical consumer use items are provided at [Attachment 4](#), Hazardous Material Authorization/Tracking Exemption List.

**Container**—Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this instruction, pipes or piping systems and engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers.

**Employee**—An individual who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or contract custodian personnel who encounter hazardous chemicals in non-routine, isolated instances are not covered by this instruction.

**Exposure or Exposed**—An employee who is subjected to a hazardous chemical through any means (inhalation, ingestion, skin contact or absorption) in the course of employment.

**Hazardous Chemical or Hazardous Material**—Any material, which is a physical or health hazard and requires an MSDS as defined in Federal Standard 313, unless excluded. The following items are not considered hazardous materials and are exempt: 1) Hazardous wastes; 2) Tobacco; 3) Wood products; 4) Materials packaged for retail sale; 5) Personal food, drugs, or cosmetics brought into the work area; 6) Consumer products used in small quantities for non-occupational uses; 7) Chemicals used for laboratory

analytical processes; 8) Pharmaceuticals and biological materials, including serums and vaccines in their final form.

**Label**—Any written, printed, or graphic material, displayed on or affixed to containers of hazardous materials.

**Material**—Same definition as chemical.

**Material Safety Data Sheet (MSDS)**—Information provided by U.S. manufacturers or importers of hazardous materials. Information includes physical and chemical data, health risks, fire and reactivity data, spill provisions, and disposal requirements.

**Non-routine Tasks**—Those tasks included within a work area's normal activity but performed infrequently. For example, tasks performed less than three times per year should be considered non-routine. Temporary duties outside an individual's normal Air Force Specialty Code (AFSC) or job series may be considered non-routine.

**Standard Use**—Normally purchased to service specific equipment.

**Use**—To package, handle, react, or transfer.

**Work Area**—A room or defined space in a work center where hazardous materials are produced or used, and where employees are present.

**Work Center**—An establishment, jobsite, or project, at one geographical location containing one or more work areas.

**Worker**—Same definition as employee.

Attachment 2

SAMPLE HAZARD COMMUNICATION PROGRAM EVALUATION

ALL PURPOSE CHECKLIST		PAGE 1	OF 1	PAGES
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR	DATE	
HAZARD COMMUNICATION PROGRAM EVALUATION		460 MDS/ SGPB		
NO.	ITEM <i>(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)</i>	YES	NO	N/A
	SQUADRON: _____ SHOP: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BLDG/ROOM: _____ WIC: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1. Do your duties require occupational use of hazardous material as defined by 460th Air Base Wing Instruction (460 ABWI) 48-121, Workcenter Written/Hazard Communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If "No", no further action is necessary. If you have any questions, contact Bioenvironmental Engineering at 677-6384.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2. Are the following documents readily available to all workers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. 460 ABWI 48-121, Workcenter Written/Hazard Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. AFOSH Standard 16-121, Hazard Communication Program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. An inventory of the hazardous materials used in the work area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Material Safety Data Sheets (MSDS) for each hazardous material used occupationally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. List of non-routine, but duty-related tasks involving hazardous materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. Operating instructions for each non-routine, but duty-related task involving hazardous materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. Copy of workplace's most recent Bioenvironmental Engineering baseline survey and annual updates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h. Shop specific hazard communication OI.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3. Can workers access documents without prior approval of their supervisors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4. Has the supervisor received training in hazard communication from Public Health?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5. Have all workers received hazard communication training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6. Is hazard communication training documented on the worker's AF Form 55?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7. Are all the hazardous materials properly labeled to include:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. Identity of the hazardous material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Appropriate hazard warnings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Name, address, and phone number of the manufacturer, importer, or other responsible party.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8. Is there a shop specific hazard communication training program in place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Attachment 3

#### SAMPLE EMPLOYEE INFORMATION AND TRAINING PLAN

**A3.1.** This document provides supervisory personnel with the training requirements for the Hazard Communication (HAZCOM) program for all personnel assigned to this work area. Upon completion of this training, personnel must have their AF Form 55, **Employee Safety and Health Record** updated to reflect such training.

#### **A3.2. Overview:**

A3.2.1. The Occupational Safety and Health Administration (OSHA) issued the Hazard Communication Standard, which eventually became Title 29 CFR 1910.1200, *Hazard Communication*. It states that every individual has the right to know what hazards are present on the job, and how to be protected against them. AFOSH Standard 161-21, *Hazard Communication*, outlines the Air Force program.

A3.2.2. In 1983, OSHA issued the Hazard Communication Standard for manufacturing operations to help protect you. In 1987, OSHA revised this standard and expanded it to include all work centers where personnel are exposed to hazardous chemicals.

A3.2.3. The goal of the Hazard Communication Program is to reduce the incidence of occupational illness and injury caused by hazardous chemicals in the work center.

**A3.3.** MSDSs are located with the HAZCOM Program. All documents (including the chemical inventory, non-routine task listing, and written plan) are contained in the HAZCOM binder, located \_\_\_\_\_ . Work area personnel are trained on how to read material labels and MSDSs during their technical training and during initial work area orientation.

A3.3.1. A Material Safety Data Sheet (MSDS) contains nine major sections. The sections are divided as follows: Material Identification, Ingredients and Hazards, Physical Data, Fire and Explosion Data, Reactivity Data, Health Hazard Data, Spill and Disposal Methods, Special Protection Information, and Comments Section. All companies follow this standard format.

A3.3.1.1. Section I contains the material identification and general information like company name, address, material name with synonyms, and an emergency phone number.

A3.3.1.2. Section II lists all hazardous ingredients in the chemical mixture. Many chemical materials are mixtures. Not only does this section list the ingredients, but also states the percentages of each ingredient found in the total mixture. For example, acetic acid may contain two ingredients, water and acetic acid, where water makes up 72% of the mixture and 28% is acetic acid. This accounts for 100% of the mixture (72 + 28).

A3.3.1.3. Section III contains physical data. Physical data is characterized by appearance, odor, a boiling point, freezing point, vapor pressure, solubility, and specific gravity. The important data in this section are vapor pressure, and boiling point. For instance, methylene chloride has a boiling point of 39°C (102°F) and has a high vapor pressure. Because of these physical properties, an employee should be aware that this material must be stored in a cool, vented, and flame free environment.

A3.3.1.4. Section IV provides data on fire and explosion information such as what type of fire extinguishing media to use and whether or not any toxic vapors are released during a fire. If so, it states the personal protective measures fire fighters should use. It is important that this section be reviewed prior to using the chemical.

A3.3.1.5. Section V provides reactivity data. This section simply describes “what can be stored with what”. An example is storing acids with bases. You would not want to store sodium hydroxide (lye) in the same cabinet with sulfuric acid (battery acid). If one of those containers broke, it would react vigorously, neutralize your chemicals, and produce hydrogen gas. It could produce a dangerous situation.

A3.3.1.6. Section VI contains health hazard information, emergency and first aid procedures. The data found in this section describes the route of entry (e.g., skin, eyes, respiratory) and the target organs or systems (e.g., liver, lungs, central nervous system) and first aid procedures.

A3.3.1.7. Section VII provides information on the proper disposal of the material. This section tells you how to neutralize a chemical spill, how to dispose of the material, and who to contact if a spill occurs.

A3.3.1.8. Section VIII provides important information on specific PPE such as respiratory protection, rubber boots, or eye goggles. It also provides information on the necessity for engineering controls such as a ventilation system.

A3.3.1.9. Section IX is used for any additional comments the manufacturer deems necessary for the user. The key is educating the user on the product to prevent injury or illness.

**A3.4.** A listing of all hazardous chemicals is provided as part of the HAZCOM Program. The actual chemicals are stored in \_\_\_\_\_.

A3.4.1. The HAZCOM program requires the use of warning labels that contain the name and identity of the chemical, and appropriate hazard warnings.

A3.4.2. Labels on containers that leave the work area must contain the name and address of the responsible party. The warning label is often your first source of information about chemical hazards. The name and identity on the label can be used to find the right MSDS, where you will find additional information.

**A3.5.** Work center HAZCOM Binder MSDSs provide the physical and health risks of each hazardous chemical along with the signs and symptoms of overexposure and the method of determining the presence or release of a hazardous material in the work area.

**A3.6.** Work area personnel reduce or prevent exposure to hazardous chemicals by using appropriate PPE and by being familiar with the signs and symptoms of exposure to the materials they are working with. Three basic methods for controlling chemical hazards are engineering controls, PPE, and administrative controls.

A3.6.1. Engineering controls include substitution, isolation, general ventilation, and local exhaust ventilation. Substitution applies when a chemical, process, or piece of equipment with fewer hazards can replace an existing one. Isolation refers to using an enclosure, barrier, or a safe distance to separate workers from the exposure hazard. Common examples of this are machine enclosures, enclosed control rooms, and splash guards. General ventilation is mixing an airborne hazard with fresh air to

reduce exposure levels. This only applies when hazards have low toxicity and mix readily with air. Some examples of general ventilation are fans and vents. Local exhaust ventilation captures an airborne hazard as it is released and takes it out of the work area to eliminate the exposure.

A3.6.2. Prioritizing how we control exposures is accomplished by looking at the source, path and receiver. Controlling the receiver is least desirable, but most often used. Personal protective equipment (PPE) is the most common means of protecting an individual against exposures (physical and health hazards). Some examples of PPE include gloves, aprons, eye and face protection, and respirators. To protect you, the PPE must be matched to the specific hazard. For example, cloth gloves are useless for protection against a corrosive liquid. Personal protective equipment is useless unless you wear it. Proper fit, correct use, and routine inspection are essential.

A3.6.3. Administrative controls include documentation, information, and training in safe work practices, good housekeeping, and most of all, monitoring. This applies to personnel and equipment. The Hazard Communication Program is an effective administrative control to ensure workers are informed on the work area hazards.

**A3.7.** Steps taken to reduce exposure. Steps are described in the BES survey reports, located in Tab F of the HAZCOM binder. The reports address PPE and administrative controls to reduce the risk of exposure to all workers. Additionally, all personnel are provided HAZCOM training and are always discussing potential situations as well as how to best deal with such situations.

**A3.8.** Work area personnel do/do not (circle appropriate word) use large quantities of hazardous materials. Most spills are cleaned up on the spot by following the Hazardous Material Spill Cleanup Procedures, which are reviewed prior to working with any chemical. An emergency eyewash is available in \_\_\_\_\_ for accidental contact and a shower is available in \_\_\_\_\_. Immediately after flushing the exposed area for 15 minutes, personnel involved will be taken to the Emergency Room for further evaluation. Additionally, work area personnel receive in-service training on responding to hazardous material spills. If, at any time, there is a spill, which is beyond our capabilities, work area personnel will evacuate the building and call the Fire Department for assistance.

**Table A3.1. Emergency Point of Contact.**

Ambulance (Through Fire Department)	911
Bioenvironmental Engineering (460 MDS/SGPB)	877-6351
Civil Engineering Environmental (460 CES/CEV)	877-9218
Fire Department (460 CES/CEF)	911
Public Health (460 MDS/SGPM)	877-6455
Safety (460 ABW/SE)	877-9335
Safety (140 WG/SE)	877-9738
Security Police (460 SFS/SFO)	877-9930

**A3.9.** The following review questions may be used by supervisors to test workers' knowledge of the Hazard Communication Program.

**Table A3.2. Workers' Knowledge of HAZCOM.**

QUESTION	ANSWER
What chemicals could present a potential health hazard used by your shop?	
What is a MSDS?	
Where are the MSDSs for your shop kept?	
Where is the Hazardous Material Inventory?	
What type of PPE is used in your shop?	
Who is your HAZCOM Program Manager?	
What procedures do you follow in the event of a small spill? A large spill? What is the difference?	

## Attachment 4

Table A4.1. Hazardous Material Authorization/Tracking Exemption List.

ITEM NAME	SIZE	EXCEPTIONS
Air Freshener	Consumer Commodity	Aerosols with Class I ODS Propellant
Anti-Seize Tape (Teflon Tape)	All	N/A
Automobile Wax	Consumer Commodity	N/A
Baking Soda	Consumer Commodity	N/A
Batteries, Dry Cell/ Alkaline	AAA-D, 9V, 6V	N/A
Correction Fluid	Consumer Commodity	Containing 1,1,1 Trichloroethane
Detergents (Laundry/Dishwasher/etc.)	Consumer Commodity	Industrial Concentrations
Dish/Hand Soaps/Compounds	Consumer Commodity	N/A
Duct Board (Used to Construct Airhandling Ducts)	Standard Use	N/A
Dustmop Treatment Compound	Consumer Commodity	N/A
Eye Wash Additive	Consumer Commodity	N/A
Floor Finish	Consumer Commodity	Oil/Solvent Based
Floor Polish Remover	Consumer Commodity	N/A
Floor Sweeping Compound	Consumer Commodity	N/A
Floor Wax	Consumer Commodity	N/A
Flux	Standard Use	Acid Containing
Furniture Polish	Consumer Commodity	N/A
General Purpose Deodorant	Consumer Commodity	Aerosols with Class I ODS Propellant
Glass Cleaner (Windex/Glass Plus/etc.)	Consumer Commodity	Industrial Concentrations
Glazing Compound	Consumer Commodity	N/A
Glue Stick	Consumer Commodity	N/A
Insect Repellent (Off, etc.)	Consumer Commodity	Commercial Concentrations
Insecticide/Herbicide (Raid/Black Flag/Diazinon/etc.)	Consumer Commodity	Commercial Concentrations
Joint Compound (For Sheetrock Work)	Consumer Commodity	N/A
Leak Detector (Soapy Water)	Consumer Commodity	N/A

ITEM NAME	SIZE	EXCEPTIONS
Liquid Chlorine Bleach	Consumer Commodity	Greater Than 9% Concentration
Metal Polish	Consumer Commodity	Industrial Concentrations
Multi-Purpose Cleaner (409/Spray Nine/Simple Green etc.)	Consumer Commodity	N/A
Neatsfoot Oil	Consumer Commodity	N/A
Print Cartridges/Printer Ribbon	Consumer Commodity	N/A
Rug/Upholstery Cleaner	Consumer Commodity	Industrial Concentrations
Shredder Oil	Standard Use	N/A
Soap (Toilet/Pumice/W/WO Lanolin/W Lotion	Consumer Commodity	N/A
Stamp Pad Ink (All Colors)	Consumer Commodity	N/A
Superglue	Consumer Commodity	N/A
Talcum Powder	Consumer Commodity	Asbestos Containing
Technical Bees Wax	Consumer Commodity	N/A
Tire/Rubber Lubricant	Standard Use	N/A
Toilet/Porcelain Cleaner (Soft-Scrub/etc.)	Consumer Commodity	Acid Containing
Toner (Direct/Indirect/Kits/Print Cartridges)	Standard Use	N/A
Urinal Cakes	Consumer Commodity	N/A
White Out	Consumer Commodity	N/A

**NOTES:**

1. "Consumer Commodity" means product is used in the work center in the same manner as it would be used for household use, with similar duration and frequency of exposure; determination is made item by item by work center supervisor (Reference AFOSH Std 161-21, Page 2).
2. Consumer use items are exempt from Hazard Communication program (no MSDS required); work centers, however, must identify these items on a separate list in their HAZCOM binder.
3. List DOES NOT exempt item from separate storage, compatibility and disposal requirements.
4. Cannot stockpile consumer use items; general guidance is two containers allowed per shop.
5. Standard Use means normally purchased to service specific equipment.