

**BY ORDER OF THE COMMANDER  
19TH AIRLIFT WING**

**LITTLE ROCK AIR FORCE BASE  
INSTRUCTION 90-821**

**6 AUGUST 2013**

**Special Management**

**WORKPLACE WRITTEN HAZARD  
COMMUNICATION PROGRAM**



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(Colonel Ray S. Jeter)

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This written program provides information specific to the implementation of Air Force Instruction (AFI) 90-821, *Hazard Communication*, at Little Rock AFB. This instruction applies to all US military and civilian personnel on, or assigned to, Little Rock AFB, all tenant units located on Little Rock AFB, all guard personnel working at Little Rock AFB, and contractor employees employed at Little Rock AFB as specified in individual contracts. A copy of this instruction, AFI 90-821, the workplace hazardous chemical inventory (authorized use listing), material safety data sheet (MSDS) for all chemicals used, and a list of the non-routine tasks involving hazardous materials will be maintained at each work area. This instruction is applicable to all organizations on Little Rock AFB with personnel using or handling hazardous chemicals in accordance with (IAW) AFI 90-821, paragraph 1.2.2. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional's chain of command.

**SUMMARY OF CHANGES**

This document has been substantially revised and must be completely reviewed. Major changes include applicable regulations have change and attachment 2 has been revised.

## Chapter 1

### INTRODUCTION

#### *Section 1A—Overview*

**1.1. Purpose.** The purpose of the HAZCOM program is to minimize the incidence of chemically induced occupational illness and injuries in the workplace. It establishes guidance for training employees on the health and physical hazards associated with, and proper preventive measures to be taken when, using or handling hazardous chemicals in workplace/shop(s).

**1.2. Scope.** This instruction provides the requirements for an effective AF HAZCOM Program for those work area/shop(s) that have workers that handle or use hazardous chemicals.

1.2.1. All employees that work in an environment where any chemical is known to be present in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency, will be provided information about the hazardous chemicals to which they are exposed.

1.2.2. This information shall be provided by means of a HAZCOM program, that includes but is not limited to material safety data sheets (MSDS), labels, and other forms of warning, as well as shop specific training and chemical hazard information [e.g. AF Form 3952, **Chemical/Hazardous Material Request/Authorization** and bioenvironmental engineering (BE) shop survey letters].

1.2.3. This instruction does not apply to products, personnel, and work areas specifically exempted in AFI 90-821, paragraph 2.2.

#### *Section 1B—Responsibilities*

#### **1.3. Installation Commander.**

1.3.1. The 19 AW/CC is ultimately responsible for all aspects of the Little Rock AFB HAZCOM Program including:

1.3.1.1. Ensuring the Little Rock AFB Hazardous Materials Management Program (HMMP) and HAZMARTS (hazardous material supply points) outside of logistics supply operate according to AF HAZCOM requirements.

1.3.1.2. Development of the workplace specific written program.

1.3.1.3. Supervisor and individual training.

**1.4. 19 AW Ground Safety (SEG) will review and approve workplace HAZCOM training programs/lesson plans for technical accuracy as requested by workplace supervisors.**

#### **1.5. 19 Medical Group Commander will ensure:**

1.5.1. 19 AMDS Bioenvironmental Engineering Flight (BEF) will:

1.5.1.1. Provide technical expertise to work area/shops on potential health hazards, training requirements, and regulatory requirements [Occupational, Safety and Health Administration (OSHA) expanded standards] associated with hazardous chemicals. For

applicable workplaces, this information is provided to supervisors in the routine occupational health assessment.

1.5.1.2. Develop, publish, and maintain installation written HAZCOM guidance in accordance with AFI 90-821, paragraph. 2.3. This installation guidance will serve as a basic component for all work area/shop HAZCOM programs where workers may be potentially exposed to hazardous chemicals.

1.5.1.3. Assist commanders and work area/shop supervisors by providing specific implementation, compliance, and technical guidance on the AF HAZCOM Program.

1.5.1.4. Assess effectiveness of worker HAZCOM Program training, including work area/shop level training, according to AFI 90-821, paragraph. 2.7.5.

1.5.1.5. Assess work area/shop compliance with the AF HAZCOM Program prescribed in this instruction.

1.5.1.6. Request from manufacturers, as needed, portions of an MSDS designated by the manufacturer as a trade secret, and provide proprietary MSDS information to USAF School of Aerospace Medicine (USAFSAM), contact number DSN 798-3764, for incorporation into the Hazardous Material Information and Resource System (HMIRS) limited rights (LR) version. A sample request letter is provided in AFI 90-821, Attachment 2.

1.5.1.7. Provide occupational health review and authorization for usage of hazardous materials (HAZMAT) on Little Rock AFB and for AFB personnel.

1.5.1.8. Provide hazard communication advice to the 19 AW Contracting Office (19 CONS) upon request to assist in ensuring all contracts include hazardous material identification and data requirements.

#### 1.5.2. 19 AMDS Public Health (PH) Flight.

1.5.2.1. PH is the point of contact for occupational health education, and provides consultation on training and technical matters to work area/shop supervisors on the AF HAZCOM Program.

1.5.2.2. While primary responsibility for performing HAZCOM training rests with the work area/shop supervisor, PH will make the appropriate training available to work area/shop supervisors.

1.5.2.3. Review and approve workplace HAZCOM training programs/lesson plans for technical accuracy as requested by workplace supervisors.

#### 1.5.3. 19 MDSS Medical Laboratory and 19 AMDS Dental Flight will:

1.5.3.1. Comply with AFOSH Standard 48-22, *Occupational Exposure to Hazardous Chemicals in Laboratories*.

1.5.3.2. Maintain MSDSs for hazardous material received.

1.5.3.3. Train workers IAW Chapter 3 of this instruction.

1.5.3.4. Provide chemical hygiene plan, that includes a list of hazardous material, for periodic review by BEF.

**1.6. Mission Support Group Commander will ensure:**

## 1.6.1. 19th Civil Engineering Squadron (CES):

## 1.6.1.1. The 19 CES Hazardous Material Management Office (HAZMO) will:

1.6.1.1.1. Maintain the centralized file of all authorized stock numbers and respective MSDSs.

1.6.1.1.2. Coordinate the approval process for hazardous material requests and issues.

## 1.6.1.2. 19 CES Fire Department will:

1.6.1.2.1. Provide technical expertise to work area/shop supervisors on potential fire hazards, make recommendations to work area/shop supervisors regarding fire-prevention controls, storage, and handling to minimize or eliminate potential fire and explosion hazards.

1.6.1.2.2. Review and approve workplace HAZCOM training programs/lesson plans for technical accuracy as requested by workplace supervisors.

## 1.6.2. 19 CONS Officer will:

1.6.2.1. Monitor contractor operations and advise contractors and base personnel as specified in chapter 4 of this regulation.

**1.7. Unit Commanders will:**

1.7.1. Provide a healthy and safe work environment for assigned personnel.

1.7.2. Ensure supervisors and employees who handle, use, or are potentially exposed to hazardous materials in the course of official AF duties are familiar with the specific hazards in their workplace.

1.7.3. Ensure the HAZCOM program is prepared, implemented and effective, and that all supervisors and employees who work with or have the potential to work with hazardous chemicals are properly trained.

## 1.7.4. Ensure workcenters using HAZMAT:

1.7.4.1. Develop and maintain a workplace written HAZCOM program as described in Chapter 2 of this instruction.

1.7.4.2. Receive and document training as defined in Chapter 3 of this instruction.

**1.8. Workplace Supervisors (Where HAZMAT Is Used):**

1.8.1. The work area/shop supervisor is responsible for ensuring all workers are properly trained on the chemical hazards in their work area/shop prior to the use of hazardous chemicals.

1.8.2. The effectiveness of this program rests squarely on the front-line supervisor and their ability to identify and address workplace specific hazards and to communicate this information to their workers.

1.8.3. Maintain a workplace written hazard communication program binder, as described in Chapter 2, and make this binder available to workers upon request.

1.8.4. Ensure their workplace meets labeling requirements defined in paragraph 2.2.

1.8.5. Provide and document initial and supplemental HAZCOM training as specified in Chapter 3.

1.8.6. Develop training programs/lesson plans as specified in Chapter 3 and ensure they are technically accurate and complete.

1.8.7. Ensure the appropriate functionals (i.e. Bioenvironmental Engineering, Ground Safety, Public Health, and Fire department) review and approve the shop specific hazard training program for technical accuracy and completeness prior to implementation in the work area/shop.

1.8.8. Ensure MSDSs for locally purchased hazardous materials are received and provided to the HAZMO and one copy kept at shop location.

1.8.9. Periodically review the workplace specific program and chemical authorizations with a goal of reducing or eliminating hazardous chemical products where possible. This may be done in conjunction with the periodic BEF workplace evaluation.

## Chapter 2

### WORKPLACE WRITTEN HAZARD COMMUNICATION PROGRAM

**2.1. Requirements.** Every workplace not exempt from the AF HAZCOM program (see AFI 90-821, paragraph 2.2 for exempted chemicals) will include:

2.1.1. A workplace written hazard communication program binder. This program must be accessible to employees during duty hours and will consist of a binder, or series of binders containing the following:

2.1.1.1. Current copy of AFI 90-821.

2.1.1.2. Copy of this instruction.

2.1.1.3. Listing of routine and non-routine job tasks and the chemicals used in them. See AFI 90-821, paragraph 2.9. for definition of non-routine tasks.

2.1.1.4. Hazardous material inventory. This document can be the authorized use listing (AUL) available from the HAZMO or equivalent as long as it meets the requirements set forth in paragraph 2.1.2.

2.1.1.5. MSDSs may be located in an alternate location (for example closer to where material are used) as long as that location is referenced in this tab. MSDSs must be maintained for each hazardous material stored or used in the workplace. See paragraph 2.1.3 for additional MSDS information.

2.1.1.6. Listing of Personal Protective Equipment (PPE) required for HAZMAT use. This list should specify which hazardous material each item of PPE protects against. A PPE lists from a job safety analysis or the occupational health personal protective equipment certification provided by the BEF will meet this requirement.

2.1.1.7. Training materials to include:

2.1.1.7.1. Initial training lesson plan.

2.1.1.7.2. Supplemental training lesson plans and support documentation.

2.1.1.7.3. Signed training rosters (or G081 training product) including date and type of training provided.

2.1.1.7.4. Additional training material may included in this tab but is not required (i.e. ESOHCAMP checklists, BEF periodic workplace surveys, DoD training plans, etc.).

2.1.2. Hazardous material inventory, which will include:

2.1.2.1. Name of material.

2.1.2.2. Stock number or equivalent.

2.1.3. All HAZMATs, to include those locally purchased, must be approved for use by the HMMP team. The AUL provided by Enterprise Environmental Safety and Occupational Health-Management Information System (ESOH-MIS) is an approved hazardous material inventory.

2.1.3.1. Should be reviewed periodically by the workplace supervisor for:

2.1.3.1.1. Currency and accuracy. Materials no longer used should be removed from the inventory in coordination with HAZMO.

2.1.3.1.2. Potential material/process changes which will reduce the need for the hazardous material.

2.1.3.2. Is reviewed periodically by the BEF during workplace surveys to:

2.1.3.2.1. Determine workplace hazards and controls.

2.1.3.2.2. Potential material/process changes which will reduce the need for the hazardous materials.

2.1.4. MSDSs:

2.1.4.1. MSDSs for each hazardous material listed on the work area hazardous material inventory must be available to all workers, on every shift, for review.

2.1.4.2. May be maintained in electronic format as long as:

2.1.4.2.1. The MSDS is available for reference during emergencies. The supervisor will make the determination if electronic copies meet this requirement. The supervisor should consider how long it takes to retrieve an MSDS in the event of an accidental release of the material.

2.1.4.2.2. They are available for review by environmental, safety, occupational health, and emergency personnel.

2.1.4.2.3. A back-up MSDS access system is in-place. A back-up system may consist of paper copies, electronic copies stored on removable media or CD, or copies available electronically through HAZMO, etc.

2.1.4.3. The method of access and back-up, if applicable, must be documented in the written HAZCOM program binder.

2.1.4.4. MSDSs will be maintained in a central location, such as a tool crib, for workplaces where personnel perform tasks involving HAZMAT in a variety of geographic locations.

2.1.4.5. MSDSs provided by the manufacturer of the chemical/material on hand. A more current MSDS should only replace the older version IF the older chemical/material is no longer on hand. If a shop has older HAZMAT and received a newer product, both old and new MSDSs should be maintained in the workplace. A copy of the most current version of the MSDS should be forwarded to HAZMO.

## 2.2. Labeling.

2.2.1. Workplace supervisors will ensure containers of hazardous materials are labeled with:

2.2.1.1. The identity of the HAZMAT in the container.

2.2.1.2. In accordance with AFI 90-821, *Hazard Communication* paragraph 2.6.4.2, "Appropriate hazard warnings that include specific physical and health hazards, including target organ effects, for the chemical in the container. Words, symbols, or pictures, or any combination thereof, can be used for this purpose."

2.2.2. Transfer and immediate use containers.

2.2.2.1. Containers used by a single employee to transfer material from a larger container for immediate use do not require labeling as long as that employee maintains personal control of that container for the duration of the task. Once the task is complete the employee will ensure the immediate use container is emptied appropriately.

2.2.2.2. Containers that do not meet the above criteria must be labeled IAW paragraph 2.2.1.

2.2.2.3. Labels can be electronically generated, handwritten, copied from manufacturer's label, or any combination thereof. HAZMO can provide label assistance upon request.

## Chapter 3 TRAINING

### 3.1. Initial Training

3.1.1. All workers who handle, use or are potentially exposed to HAZMAT during the performance of their AF duties must receive HAZCOM training PRIOR to working with any HAZMAT. This includes any worker newly assigned to the specific workplace.

3.1.2. Initial HAZCOM training will include, at a minimum:

3.1.2.1. Review of the processes, routine and non-routine, in the workplace which require HAZMAT usage.

3.1.2.2. Review of the hazardous materials inventory and hazards associated with each HAZMAT to include:

3.1.2.2.1. Relevant hazard category (flammability, carcinogenic, reactivity, mutagenesis, etc.).

3.1.2.2.2. Materials with specific regulatory requirements (OSHA expanded standard chemicals, EPA 17, etc.).

3.1.2.3. Location and description of the workplace specific HAZCOM binder.

3.1.2.4. What a proper HAZMAT label entails and the specific shop procedures on labeling.

3.1.2.5. Location of, or how to access, MSDS.

3.1.2.6. How to properly read MSDS.

3.1.2.7. Controls workers must use to minimize exposure to specific HAZMATs. Controls may include engineering controls such as ventilation systems, administrative controls such as limiting exposure time and PPE.

3.1.2.8. Emergency procedures in the event of an unauthorized release to include:

3.1.2.8.1. How to recognize when an accidental release has occurred (alarms, visual, odor, etc.).

3.1.2.8.2. Location of and how to use emergency eye wash and shower stations.

3.1.2.8.3. Escape procedures.

**3.2. Supplemental Training.** When new hazards/chemicals are introduced into the workplace ALL employees must be trained on those hazards. Supplemental training will consist of the training elements identified in paragraph 3.1.2, as a minimum.

**3.3. Annual Training.** Annual training is encouraged but not required.

**3.4. Measuring HAZCOM Training Effectiveness.**

3.4.1. HAZCOM is a performance based standard therefore effectiveness may be determined by assessing a worker's knowledge of:

- 3.4.1.1. Which processes present a chemical hazard and the nature of that hazard.
- 3.4.1.2. How to locate an MSDS for any chemical in the HAZMAT inventory.
- 3.4.1.3. How to find information on an MSDS.
- 3.4.1.4. How to read and interpret hazards identified on a HAZMAT container label.
- 3.4.1.5. What type of PPE is used in the workcenter.
- 3.4.1.6. Who the workcenter HAZCOM program manager is.
- 3.4.1.7. Knowing what procedures to follow in the event of a small spill? A large spill? What is the difference?

3.4.2. HAZCOM effectiveness can be measured by anyone at anytime; however, it will be evaluated specifically during:

- 3.4.2.1. The BEF periodic workplace surveys.

### **3.5. Training Documentation.**

3.5.1. Work area/shop supervisors will utilize one of the following methods to document both worker initial and supplemental hazard communication training: AF Form 55, **Employee Safety and Health Record**, Core Automated Maintenance System (CAMS), Enterprise Environmental Safety and Occupational Health-Management Information System (ESOH-MIS), or other locally approved training management system.

3.5.2. Training records should also include external HAZCOM training provided to AF supervisors and employees from contractor organizations where applicable.

## Chapter 4

### CONTRACTOR OPERATIONS

**4.1. 19 CONS Officer (CO).** The CO, with assistance from the BEF and work area supervisor, if requested, will advise contractors of hazardous chemicals they may encounter and protective measures needed in the normal course of their work in this work area. The CO will advise the contractor MSDS information is available through the shop supervisors, HAZMO or BEF and provide information on labeling requirements and procedures.

**4.2. In accordance with 52. 223-3, *Hazardous Material Identification and Material Safety Data*,** “The contractor is required to submit information on the use of hazardous chemicals.” All contractors on base, to include construction contracts, must provide HAZMO with MSDSs for approval prior to using them on LRAFB. Monitoring at the pre-performance conference, and subsequently during the contract performance period, the requiring activity quality assurance evaluator or contracting officer’s technical representative will advise work area supervisors and AF employees monitoring the performance of contractors of hazardous chemicals introduced by the contractor.

BRIAN S. ROBINSON, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION***references*

AFI 32-7086, *Hazardous Materials Management*, 1 November 2004

AFI 90-821, *Hazard Communication*, 30 March 2005

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection and Health Program*, 1 June 1996

AFOSH Standard 48-22, *Occupational Exposure to Hazardous Chemicals in Laboratories*, 1 March 1994

AFPD 90-8, *Environmental Safety and Occupational Health Program*, 2 February 2012

DoDI 6050.05, *Hazard Communication Program*

OSHA, 29 CFR 1910.1200, *Hazard Communication*

**Prescribed Forms**

None

**Adopted Forms**

AF Form 847, *Commendation for change of publication*

AF Form 3952, *Chemical/Hazardous Material Request/Authorization Form*

AF Form 55, *Employee Safety and Health Record*

*Abbreviations and Acronyms*

**AFI**—Air Force Instruction

**AFOSH**—Air Force Occupational Safety and Health

**BE**—Bioenvironmental Engineering

**CAMS**—Core Automated Maintenance System

**ESOH CAMP**—Environmental Safety Occupational Health Compliance Assessment and Management Program

**ESOH—MIS**—Environmental, Safety, and Occupational Health Management Information System

**HAZCOM**—Hazard Communication

**HAZMAT**—Hazardous Material

**HAZMO**—Hazardous Material Management Office

**HMIRS**—Hazardous Material Information and Resource System

**HMMP**—Hazardous Materials Management Program

**MSDS**—Material Safety Data Sheet

**NSN**—National Stock Number

**OI**—Operating Instruction

**OSHA**—Occupational Safety and Health Administration

**PH**—Public Health

**PPE**—Personal Protective Equipment

### *Terms*

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

**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, engines, fuel tanks, or other operating systems in a vehicle are not considered to be containers.

**Employee**— A worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or finance tellers who encounter hazardous chemicals only 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 route of entry (inhalation, ingestion, skin contact or absorption) in the course of employment. Also includes potential, accidental, or possible exposure.

**Hazardous Material Management Office or HAZMO**— As the customer service desk for the HHMP, it is the only entity on an installation authorized to issue government-owned HAZMAT. At a minimum, a HAZMO is a facility or location where customers can receive support for obtaining HAZMAT, and where HAZMATs are managed and tracked.

**Hazardous Chemical or HAZMAT**— Any material, which is a physical or health hazard and requires a Material Safety Data Sheet (MSDS) as defined in Federal Std 313, unless excluded. The following items are not considered HAZMAT 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)**— Written or printed material concerning HAZMAT which is prepared according to 29 CFR, 1910.1200.

**Non-routine Tasks**— Those tasks identified in a work area's normal activities but performed infrequently and/or as temporary duties outside an individual's normal Air Force Specialty Code (AFSC) or job series.

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

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

**Workplace**— An establishment, jobsite, or project, at one geographical location containing one or more work areas. For this instruction, the workplace is defined as all facilities located within the boundaries of LRAFB.

**Worker**— Same definition as employee.

## Attachment 2

## SAMPLE WORKPLACE SPECIFIC HAZARD COMMUNICATION TRAINING PLAN

**(SHOP NAME)**  
**WORKPLACE SPECIFIC HAZARD TRAINING PLAN**  
**XXXXXXXX 2013**

This written hazard communication (HAZCOM) training plan provides information specific to the implementation of Air Force Instruction (AFI) 90-821, *Hazard Communication*, in this workplace. The supervisor is responsible for ensuring all workers are properly trained on the chemical hazards in their work area/shop. Supervisors and employees who handle, use, or are potentially exposed to hazardous materials in the course of official Air Force duties must be provided training on the AF HAZCOM program, including training to address work area/shop-specific hazards prior to the use of hazardous chemicals. This plan will be provided to contract supervisors and contractors; however, they shall be trained according to their specific contract provisions.

**Hazard Communication Training:**

1. The supervisors and employees at **(shop/office symbol/building location/phone number)**, handle, use, or are potentially exposed to hazardous materials. These workers will receive comprehensive HAZCOM training from their supervisors at the time of their initial assignment at **(shop name)** at Little Rock AFB. **Upon completion of this training, personnel must have their AF Form 55, or electronic equivalent, updated to reflect such training.** This initial training, at a minimum, will include the following:

1.1. Identification of all operations or processes in the work area/shop where hazardous chemicals are present or used. **Please list your tasks that utilize hazardous chemicals below (examples are provided).**

**Table 1.1: Routine Process/Task Listing**

Process/Task Name	Frequency/Duration	Chemical(s) Used	Target Organ/Hazard	Protective Measures/Controls
<b>Lead &amp; Copper Sampling</b>	<b>Daily/2 hours</b>	<b>Nitric Acid</b>	<b>Eyes, Skin, Teeth, Respiratory System</b>	<b>Face shield, Butyl rubber gloves</b>
<b>Cleaning Aircraft Parts</b>	<b>Weekly/15 minutes</b>	<b>Paint thinner, MEK, Acetone, and Isopropyl Alcohol</b>	<b>Respiratory System/Skin</b>	<b>Nitrile or PVC gloves, Splash-proof safety goggles</b>

1.2. The work area hazardous chemical inventory.

1.2.1. The relevant hazard category (e.g., flammability, carcinogenicity, etc.) associated with each hazardous chemical used in association with each shop process performed routinely and/or the individual chemical hazards, including, but not limited to, those with specific regulatory requirements (e.g., asbestos, benzene, beryllium, cadmium, chromium, formaldehyde, and lead).

1.2.2. Hazardous chemical controls (engineering, administrative, and personal protective equipment), whether the controls are required or recommended, and the controls limitations. This may be done by

reviewing the most current Bioenvironmental Engineering (BE) assessment.

1.3. The hazardous chemicals used by **(shop name)** are stored in **(area, bldg, room #)**. All labels on containers of hazardous materials must remain affixed to their containers, and are not to be obliterated or covered (ultimately supervisor's responsibility, but all workers must know this policy). At a minimum, the following information will appear on container labels:

1.3.1. Appropriate hazard warnings that include information about the specific physical and health hazard(s) of the constituents in the container.

1.4. Chemical Hazards associated with non-routine tasks

1.4.1. The following is a list of chemical hazards associated with non-routine tasks at **(shop name)**. **Please list your tasks that utilize hazardous chemicals below (examples are provided).**

**Table 1.2: Non-routine Task Listing**

Process/Task Name	Frequency/Duration	Chemical(s) Used	Target Organ/Hazard	Protective Measures/Controls
<b>Lead &amp; Copper Sampling</b>	<b>Annual/2 hours</b>	<b>Nitric Acid</b>	<b>Eyes, Skin, Teeth, Respiratory System</b>	<b>Face shield, Butyl rubber gloves</b>
<b>Cleaning Aircraft Parts</b>	<b>Biennial/15 minutes</b>	<b>Paint thinner, MEK, Acetone, and Isopropyl Alcohol</b>	<b>Respiratory System/Skin</b>	<b>Nitrile or PVC gloves, Splash-proof safety goggles</b>

1.5. Emergency Procedures

1.5.1 All employees in **(shop name)** will follow these escape procedures in the event of a spill or accidental chemical release (e.g., visual, odor, alarm): **Type the shop specific escape procedures here to include emergency eye wash stations, showers, and monitoring equipment.**

1.5.2. 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 **(area, bldg, room #)** for accidental contact and a shower is available **(area, bldg, room #)**. Immediately after flushing the exposed area for 15 minutes, personnel involved will be taken to an 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 1.3: Emergency Points of Contact**

Fire Department	911
Bioenvironmental Engineering Flight	987-7398/425-7163
Ground Safety	987-3290
Public Health*	987-7209
HAZMO*	987-5247
Civil Engineering Environmental	987-3681/987-6553

\*These numbers are for duty hours only, for after duty hours call one of the other agencies or command post

## 1.6. Proper labeling of hazardous materials.

1.6.1. 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.

1.6.2. The identity of the hazardous chemical(s) in the container.

1.6.3. Appropriate hazard warnings that include information about the specific physical and health hazard(s) of the constituents in the container.

## 1.7. How to access and read MSDSs.

1.7.1. All workers on all shifts will know how to obtain an MSDS, and have unrestricted direct access to MSDSs. MSDSs are located in **(area, bldg, room #)**. Access to MSDSs in **(shop name)** will be provided as follows:

1.7.1.1 An MSDS contains nine major sections (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 North American companies follow this standard format.

1.7.1.1.1. Section I (Material Identification) contains the material identification and general information like company name, address, material name with synonyms, and an emergency phone number.

1.7.1.1.2. Section II (Ingredients and Hazard) 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). Knowing percentages is helpful when an air sample is accomplished to determine the airborne concentration of the hazard.

1.7.1.1.3. Section III (Physical Data) 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.

1.7.1.1.4. Section IV (Fire and Explosion Data) 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.

1.7.1.1.5. Section V (Reactivity Data) 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.

1.7.1.1.6. Section VI (Health Hazard Data) contains health hazard information, emergency and first aid procedures. The data found in this section describe 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.

1.7.1.1.7. Section VII (Spill and Disposal Methods) 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.

1.7.1.1.8. Section VIII (Special Protection Information) provides important information on specific personal protective equipment such as respiratory protection, rubber boots, or eye goggles. It also provides information on the necessity for engineering controls such as a ventilation system.

1.7.1.1.9. Section IX (Comments Section) 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.

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

1.8.1. Workplace HAZCOM Binder MSDS's 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.

1.8.2. Work area personnel reduce or prevent exposure to hazardous chemicals by using appropriate personal protective equipment (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.

1.8.2.1. 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.

1.8.2.2. 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.

1.8.2.3. 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 HAZCOM Program is an effective administrative control to ensure workers are informed on the work area hazards.

1.8.3. Steps taken to reduce exposure. Steps are described in the BEF survey reports, located in Tab G 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.

1.9. The location of the hazard communication program binder (**room # and location within that room**) that contains the following documents:

1.9.1. A copy Air Force Instruction 90-821, *Hazard Communication* and LRAFBI 90-821, *Workplace Written Hazard Communication Program*.

1.9.2. A list of both routine and non-routine tasks involving hazardous materials.

1.9.3. The work area hazardous chemical inventory.

1.9.4. MSDSs. MSDSs may be located in an alternate location (for example closer to where material are used) as long as that location is referenced in this binder.

1.9.5. Listing of PPE required for HAZMAT use.

1.9.6. This training plan.

2. Supplemental Training: Supplemental training for all potentially affected employees in shop will be performed by (**name of Shop NCOIC or designated trainer**) when either a new hazard is brought into the work shop, when a new chemical is introduced, or before a non-routine task is performed. Training will be performed before the chemical is used in the shop. The shop supervisor should use BE special survey letters as sources of information to meet this training requirement.

3. Documentation of Hazard Communication Training:

3.1. The (**shop name**) shop supervisors will document both worker initial and supplemental hazard communication training on each employee AF Form 55, or electronic equivalent.

4. Determining the Effectiveness of Hazard Communication Training:

4.1. HAZCOM is a performance-based standard. Therefore, the effectiveness of worker training in the (**shop name**) shop will be measured by assessing worker knowledge of basic hazard communication concepts to include, but not be limited to:

4.1.1. Which processes present a chemical hazard and the nature of that hazard.

4.1.2. How to locate an MSDS for any chemical in the HAZMAT inventory.

4.1.3. How to find information on an MSDS.

4.1.4. How to read and interpret hazards identified on a HAZMAT container label.

4.1.5. What type of PPE is used in the work center.

4.1.6. Who the work center HAZCOM Program Manager is.

4.1.7. What procedures do you follow in the event of a small spill? A large spill? What is the difference?

Squadron Commanders Signature Block (or Designated Rep)

Approved /disapproved:

Approved /disapproved:

\_\_\_\_\_  
Bioenvironmental Engineering Representative/Date

\_\_\_\_\_  
Public Health Representative/Date

Approved /disapproved:

Approved /disapproved:

\_\_\_\_\_  
Fire Department Representative/Date

\_\_\_\_\_  
Ground Safety Representative/Date

Attachment 3

**SAMPLE APPROVAL LETTER FOR EXISTING WORKPLACE SPECIFIC HAZARD COMMUNICATION TRAINING PLAN**

MEMORANDUM FOR 19 AMDS/SGPB, 19 AW/SEG, 19 AMDS/SGPM, 19 CES/CEF

FROM: **shop unit symbol**

SUBJECT: Review of HAZCOM Training Plan

1. I have reviewed the attached training plan to ensure it is current, workplace specific, and meets all the minimum requirements listed in LRAAFBI 90-821, *Workplace Written Hazardous Communication Program*.

2. I request the following agencies review and approve the attached training plan for technical accuracy, IAW AFI 90-821, para. 2.7.1:

**Approved /disapproved:**

**Approved /disapproved:**

\_\_\_\_\_  
**Bioenvironmental Engineering Representative/Date**

\_\_\_\_\_  
**Public Health Representative/Date**

**Approved /disapproved:**

**Approved /disapproved:**

\_\_\_\_\_  
**Fire Department Representative/Date**

\_\_\_\_\_  
**Ground Safety Representative/Date**

3. Any questions can be referred to the shop supervisor, **your name**, at 987-XXXX.

**Shop Supervisor Signature Block.**