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1.0 POLICY/PURPOSE

Santa Barbara Applied Research (SBAR), Inc. personnel are fully informed of the hazardous chemicals and substances they encounter in the workplace through a program of both classroom and job site training. This Work Instruction (WI) establishes the Hazard Communication Program to include procedures for training SBAR employees on the physical and health hazards associated with the various chemicals found in the work place, as well as the necessary steps to protect employees.

2.0 SCOPE

This WI applies to all SBAR, Inc. operations where hazardous chemicals are used. Where applicable, SBAR subcontractors also comply with the provisions of this WI.

3.0 REFERENCES AND DEFINITIONS

3.1 References

ISO 9001: Quality Management Systems-Requirements, Third Edition (2000-12-15)

- ISO 9001, 4.2.1(d): Documents
- ISO 9001, 7.5.1: Control of Production and Service Provision
- 29 CFR 1910.1200: Hazard Communication
- T8 CCR 5194: Hazard Communication
- AFI 32-7086: Hazardous Materials Management
- SBAR Hazard Communication Training Syllabus WI (CP-00-7000-01-A)

3.2 Definitions

AF Form 3952 (Chemical/Hazardous Material Request/Authorization:) A form used by the Air Force to track all hazardous materials/chemicals brought onto an Air Force installation. SBAR and/or its subcontractors are required to complete this form and obtain Air Force approval, prior to introducing any hazardous material/chemical onto an Air Force installation.

AFI 32-7086: Hazardous Materials Management: The Air Force instruction (AFI) that explains the management of the procurement and use of hazardous materials, to support Air Force missions, ensure the safety and health of personnel and surrounding communities, and minimize Air Force dependence on hazardous materials. The AFI includes the activities and infrastructure required for ongoing identification, management, tracking, and minimization of hazardous materials.

<u>Hazard Communication (HAZCOM) Program:</u> All actions taken to identify, control, process, store, transport, report, train, etc. hazardous materials.

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<u>Hazardous Material (HAZMAT):</u> A substance exhibiting one or more of the following characteristics:

- Corrosive: pH of ≤ 2 or ≥ 12.5 .
- Reactive: Chemical reaction resulting in an explosion.
- Ignitability/Flammability: Flashpoint < 100 F.
- Toxic: Causes harm to a biological mechanism such as the human liver.

(**NOTE:** Above commonly referred to as "CRIT").

(**NOTE:** As a general rule of thumb, any material, whether within specifications or a waste, and exhibiting any or all of the above criteria, will be treated by SBAR and its subcontractors as a hazardous material.)

<u>Hazardous Substances List:</u> Substances found in the workplace that the State of California believes are potentially hazardous to human health. Often referred to as the "Director's List of Hazardous Substances," or simply the "Director's List."

<u>HAZMART:</u> The base level Air Force agency that manages the HAZMAT program for a particular Air Force installation. Also known as the HAZMAT Pharmacy.

Material Safety Data Sheet (MSDS): A document prepared by the manufacturer of the HAZMAT that lists the substance's chemical name, formula, chemical/physical properties, health hazards, chemical/substance name, formula, uses, etc.; physical data (e.g., boiling point, vapor density); worker exposure limit; fire/explosion data; reactivity (e.g., chemical incompatibilities); health hazards (e.g., carcinogen/target organs); emergency procedures (e.g., spill/leak response); Personal Protective Equipment; and additional information such as regulatory requirements.

<u>Proposition 65 (Prop. 65):</u> Chemicals known to the State of California to cause cancer or reproductive toxicity.

<u>Environmental Health and Safety (EH&S):</u> The SBAR agency, normally at the contract level, who manages the safety and environmental programs, to include the HAZCOM program.

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4.0 RESPONSIBILITIES

4.1 SBAR Quality Manager

The SBAR Quality Manager is responsible for this WI and revises SBAR *Hazard Communication Training Syllabus WI (MCA-00-7000-01-A)*, as necessary.

4.2 Program Managers

Program Managers ensure HAZCOM requirements are fulfilled on their contracts and when necessary, ensure contract specific WIs are written to supplement this WI.

4.3 Contract/Subcontract Managers

When hazardous materials are used on a contract, Contract/Subcontract Managers ensure subcontractors comply with the applicable requirements of this WI as well as 29 CFR 1910.1200 and T8 CCR 5194.

4.4 EH&S Personnel

EH&S personnel (where assigned) are responsible for implementing the HAZCOM program for their respective contracts and, as necessary, publish a contract specific WI to supplement this WI.

4.5 Managers/Supervisors

Managers and supervisors ensure their operations comply with HAZCOM requirements. Additionally, managers and supervisors ensure their personnel understand how to identify, control, process, store, transport, report, train, etc. hazardous materials. Further, managers and supervisors ensure their employees have the proper equipment (e.g., Personal Protective Equipment) when controlling, processing, storing, transporting, etc. hazardous materials.

4.6 Employees

Prior to handling, processing, storing, transporting, etc. any hazardous material, employees ensure they understand the risks associated with the individual chemical/material.

5.0 REQUIREMENTS/PROCEDURES

5.1 General

Compliance with federal (29 CFR 1910.1200) and state (e.g., T8 CCR 5194) OSHA HAZCOM regulations is mandatory. Additionally, Air Force contracts where HAZMAT is used, will require compliance with AFI 32-7086.

5.2 AFI 32-7086: *Hazardous Materials Management* Requirements

When ordering and processing of hazardous material are required by an Air Force SOW, the following general provisions apply:

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5.2.1 HAZMAT requisitions of materials that have not been authorized for use on a specific base, e.g., Vandenberg AFB, are first reviewed by the EH&S Office (or equivalent), the base bioenvironmental engineering office, the base safety office, and the base environmental office. This approval process is via a web-based AF Form 3952, *Chemical/Hazardous Material Request/Authorization*, which requires the chemical/material MSDS to be routed through the agencies listed above. The HAZMAT cannot be brought onto the base until this form is approved by the Air Force.

5.2.2 Upon receipt, each container of a hazardous material is assigned a unique bar code by the HAZMART that is used by EH&S (or equivalent) to track the container from "cradle to grave." After a container is 100% consumed, the applicable supervisor/technician notifies the EH&S Office who in-turn informs the HAZMART that the contents of the container have been consumed. However, if a container is not 100% consumed and the container cannot be returned to the HAZMART, the container is disposed of In Accordance With (IAW) current hazardous waste regulations. Hazardous materials become hazardous waste either through a process or from expired shelf life. The chemical constituents mentioned on the MSDS in many cases do not change when a material is used in a process. However, in some cases a material can become more hazardous than in its original state.

5.3 Labels And Other Forms Of Warning

HAZMAT containers all come from the various manufacturers with the appropriate labels attached. These labels are not deliberately defaced; however, if over a period of time the label is unreadable, the container is relabeled in the following manner:

- Hazardous Material Identification Guide (HMIG) labels or,
- Attaching duct tape to the container then writing the name of the chemical/substance on the tape in indelible ink or,
- Attaching the appropriate hazard symbol label (e.g., flammable), etc. or,
- Any combination of the above.

When transferring material to another container, the second container is labeled with exactly what is in the first container along with the appropriate warning label(s), e.g., FLAMMABLE. Again, use one or a combination of the above methods to properly label the container.

When the contents of a container are in question, EH&S (or equivalent) disposes the container and the contents as hazardous waste IAW local rules and regulations. EH&S makes the arrangements with the base Collection/Accumulation Point or CAP to properly dispose of the substance.

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Flammables/combustibles are stored in flammable lockers. Gasoline, paint thinners, and other flammable materials are transported and stored in safety cans, as appropriate. Corrosives are also stored in the appropriate container/locker. EH&S (or equivalent) ensures the appropriate lockers/safety cans are available for use , e.g., order these items through the USAF supply system.

5.4 Material Safety Data Sheets (MSDS)

EH&S (or equivalent), normally the Environmental Engineer/Specialist, is responsible for a contract's MSDS program. EH&S maintains a master file of contract specific MSDSs. Additionally, MSDSs must be readily available (e.g., job sites, maintenance vehicles) at the various work sites.

Prior to new HAZMAT arriving at the work site, EH&S (or equivalent) briefs affected employees on the MSDS contents prior to the substance being issued. Additionally, if a new MSDS is published for an existing substance, EH&S distributes it to the affected employees within 30 days of receipt. Periodically, EH&S reminds all employees of their right to review MSDSs at any time and will encourage workers to do so. These reminders are normally given during periodic safety meetings (e.g., Tailgate Safety Meetings).

The EH&S Office (or equivalent) develops and publishes a notice to all employees concerning MSDS availability as well as a list of HAZMAT that are listed under Proposition 65 and/or the Director's List of Hazardous Substances. (**NOTE:** California requirement.) See Attachments 1 and 2 for sample notices. These notices are displayed/maintained at various locations throughout the specific contract.

5.5 Employee Information and Training

EH&S (or equivalent) is responsible for HAZCOM training, utilizing <u>SBAR Hazard</u> <u>Communication Training Syllabus WI (CP-00-7000-01-A)</u>. This training includes:

- Program requirements.
- Types of Hazards.
- Detection/Identification and Reporting Hazards.
- Physical and Health Affects.
- Warning Placards and Labels.
- MSDS Program.
- Hazards New to The Work Place.
- Personal Protective Equipment.

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- Emergency Response.
- First Aid.
- Mishap Reporting.
- Proposition 65 Chemicals and the Director's List of Hazardous Substances. (**NOTE:** California requirement.)
- Non-Hazardous Material Spill Cleanup
- Questions and Answers. (**NOTE:** Individual contracts supplement this training syllabus as necessary to meet local requirements.)

When HAZMAT is present in the working environment, EH&S (or equivalent) gives this training to each new employee upon initial assignment, and whenever a new physical or health hazard is about to be introduced into the work area. Further, when applicable, EH&S conducts HAZCOM training for subcontractors to inform them of the hazardous materials they are likely to encounter when performing work for MCA.

5.6 HAZCOM Program Availability

Upon request, SBAR makes the written HAZCOM Program (e.g., this WI and supplements, *Hazard Communication Training Syllabus*) available to employees, their designated representatives (i.e., union), and appropriate federal and state OSHA officials.

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Attachment 1 – Notice to all Employees (Sample)

NOTICE TO ALL EMPLOYEES

ACCESS TO MATERIAL SAFETY DATA SHEETS (MSDS)

BY CAL/OSHA REGULATION--GENERAL INDUSTRY SAFETY ORDER 5194--YOU, YOUR PHYSICIAN, AND YOUR COLLECTIVE BARGAINING AGENT HAVE THE RIGHT TO SEE AND RECEIVE COPIES OF:

MSDSs for substances used in the workplace that are on the State Department of Industrial Relations Director's List of Hazardous Substances (Section 339, Title 8, California Administrative Code)

Attached is a list of substances present in this employment, which are listed under Proposition 65, and/or the Director's List of Hazardous Substances.

MSDSs are located at Bldg 861 (Master Set for O & M, Contact the EH&S Office), Bldg 533 (Master Set for Corrosion Control, Contact the Warehouseman), Bldg 8510 (Contact the Lead Technician), Bldg 7000 (Contact the Lead Technician), Bldg 525 (Contact Plant Foreman) and Bldg 730 (Contact the Lead Technician). Additionally, Corrosion Control Foremen have MSDSs On-Site.

Copies of General Industry Safety Order 5194 and the Director's List of Hazardous Substances are available from the EH&S Office, Bldg 861.

The EH&S Office, Bldg 861 (5-3054), Has Overall Responsibility for the MSDS Program.

NOTE: NO EMPLOYEE MAY BE DISCHARGED OR DISCRIMINATED AGAINST IN ANY WAY FOR EXERCISING THE RIGHTS AFFORDED THEM UNDER THE HAZARDOUS SUBSTANCE INFORMATION AND TRAINING LAW.

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Attachment 2 – Hazardous Materials List (Sample)

HAZARDOUS MATERIALS LISTED UNDER PROPOSITION 65 AND/OR THE DIRECTOR'S LIST OF HAZARDOUS SUBSTANCES

<u>SUBSTANCE</u> <u>LOCATION</u>

1,1,1-Trichloroethane Mnx Trucks/Shops
Acetone Mnx Trucks/Shops
Aluminum (Dust) Corrosion Control

Antimony All Facilities with Batteries

(NOTE: Minor constituent of batteries)

Arsenic All Facilities with Batteries

(NOTE: Minor constituent of batteries)

Asbestos (Non Friable) All Bldgs

*Benzene Corrosion Control Ethylene Glycol All HVAC Systems

Gasoline All Vehicles
Hydrochloric Acid Power Plant

*Lead/Lead Compounds All Facilities with Batteries

Mica Corrosion Control

(NOTE: Minor constituent of Zinc Dust)

*PCBs All Facilities (Light Ballasts)
Silica Corrosion Control (Blast Grit)

Sodium Hydroxide Power Plant

Sulfuric Acid All Facilities with Batteries
Tin All Facilities with Batteries

(NOTE: Minor constituent of batteries)

*Toluene Corrosion Control

^{*} Proposition 65 Chemical

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