PHOENIX FIRE DEPARTMENT

VOLUME 1 – Operations Manual

HAZARD COMMUNICATION PROGRAM

MP110.07 11/08 – R

PURPOSE

The purpose of this MP is to provide for the safety of members who may be exposed to chemicals in the workplace and to ensure compliance with the applicable OSHA and City Regulations.

The purpose of this written program is to ensure the hazards of all chemicals used in the Fire Department are evaluated and information concerning the chemical hazards is provided to the employees. The transmittal of information to the employees is to be accomplished by this Hazard Communication Program. This includes container labeling and other forms of warnings, Material Safety Data Sheets (MSDS) and employee training.

Under this program, Fire Department employees will be informed of the contents of the Hazard Communication Standard, the hazardous properties of the chemicals with which they work, safe handling procedures and measures to take to protect themselves from these chemicals.

SCOPE

This program applies to all Fire Stations and work sites in the Fire Department where employees may be exposed to hazardous substances under normal working conditions or during an emergency situation.

POLICY

The City of Phoenix Fire Department will maintain an effective "Hazard Communication Program" in accordance with the current Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200) and the City of Phoenix Administration Regulation (AR 2.314).

DEFINITIONS

Acute Effect – An adverse effect on a human or animal body caused by exposure to a chemical or physical agent, with symptoms developing rapidly. Also see *chronic*.

ACGIH – American Conference of Governmental Industrial Hygienists.

Asphyxiant – A gas whose primary or most acute health affect is asphyxiation. There are two classes of asphyxiant: simple asphyxiants, such as nitrogen or methane, which act by replacing

oxygen; and chemical asphyxiants, such as carbon monoxide, which cause asphyxiation by preventing oxygen uptake at the cellular level.

Carcinogen – a SUBSTANCE OR AGENT CAPABLE OF PRODUCING CANCER.

Ceiling Limit – An airborne concentration of a toxic substance in the work environment that should never be exceeded.

Chemical – Any element, chemical compound or mixture of elements and/or compounds.

Chronic effect – An adverse effect on a human or animal body, with symptoms, which develop slowly over a long period of time of exposure to a chemical or physical agent. Also see *acute*.

Combustible liquid – Any liquid having a flashpoint at or above 100^{o}F (37.8^{o}C), but below 200^{o}F (93.3^{o}C), except any mixture having components with flashpoints of 200^{o}F (93.3^{o}C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Compressed gas – A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70^{o}F (21.1^{o}C); or a gas or mixture of gases having, in a container an absolute pressure exceeding 104 psi at 130^{o}F (54.4^{o}C) regardless of the pressure at 70^{o}F (21.1^{o}C); or a liquid vapor pressure exceeding 40 psi at 100^{o}F (37.8^{o}C) as determined by ASTM D-323-72.

Container – Any bag, barrel, bottle, box, can cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. Pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Corrosive – A substance that causes visible destruction or permanent changes in human skin tissue at the site of contact.

Decomposition – The breakdown of a chemical or substance into different parts or simpler compounds. Decomposition can occur because of heat, chemical reaction, decay, etc.

Evaporation rate – The ration of the time required to evaporate a measured volume of liquid to the time required to evaporate t he same volume of a reference liquid (ethyl ether) under ideal test conditions. The higher the ratio, the slower the evaporation rate.

Flammable liquid - Any liquid having a flash point below 100^{o}F (37.8^{o}C).

Flash point - The lowest temperature at which a liquid gives off enough vapor to form an ignitable mixture with air and produce a flame when a source of ignition is present. Two tests are used: open cup and closed cup.

Gas – A state of matter in which the material has a low density and viscosity, can expand and contract greatly in response to changes in temperature and pressure, easily diffuses into other gases, and readily and uniformly distributes itself throughout any container. A gas can be changed into a liquid or solid state only by the combined effect of increased pressure and decreased temperature (below the critical temperature).

Hazardous material – Any substance or compound that has the capability of producing adverse effects on the health and safety of humans.

IDLH – Immediately dangerous to life or health.

Material safety data sheet (MSDS) – As part of hazard communication standards, federal OSHA requires manufacturers and importers of chemicals to prepare compendia of information on their products. Categories of information that must be provided on MSDSs include physical properties, recommended exposure limits, personal protective equipment, spill-handling procedures, first aid, health effects and toxicological data.

Melting point – The transition point between the solid and liquid states, expressed as the temperature at which this change occurs.

Oxidizer – A chemical other than a blasting agent or explosive that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Pyrophoric – Chemical that will ignite spontaneously in air at a temperature of 130^{o}F (54.4^{o}C) or below.

MATERIAL SAFETY DATA SHEETS (MSDS)

Resource Management will obtain an MSDS for each hazardous chemical that is purchased and stocked. Food, drugs and cosmetics brought into the workplace for employee consumption are exempt. Employees in the purchasing section of the Fire Department are responsible for updating the Environmental Data management System (EDMS) with the new information found on a revised MSDS or an MSDS for a new product.

An MSDS will be provided for all applicable chemicals and materials used within the department. The Fire Department provides the MSDS in two formats: hardcopy at the work location and electronic on the Intranet. The MSDS search file may be accessed from the FIRE WIRE homepage.

LABELS AND OTHER FORMS OR WARNING

All work site containers of hazardous chemicals must be labeled. Labels must list in English the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer. Information may be added in other languages as long as the information is available in English as well.

Labels frequently contain other information, such as precautionary measures (i.e., “do not use near open flame”), but this information is provided voluntarily by the company and is not required by the rule. Labels need to be legible and prominently displayed, though the size and color can vary.

EMPLOYEE INFORMATION AND TRAINING

Employees will be provided information and training on hazardous chemicals in their work area at the time of t heir initial assignment and before they come into contact with or are exposed to chemical products in the workplace. Additional HAZCOM training will also be provided whenever a new chemical-related hazard is introduced into the work area, which has not previously been included in training.

HAZCOM Training will include information on the following:

- The requirements of 29 CFR 1910.1200
- Operations that involve the use of hazardous chemicals
- How to access this written program, the work area inventory lists and the MSDSs for hazardous chemicals used in the work area
- Appendix A and B of the HAZCOM standard (29 CFR 1910.1200)
- Emergency procedures to follow in the event of an accidental spill or release of hazardous material
- How to detect potential exposures or exposures to hazardous chemicals in the workplace
- The physical and health hazards of the different categories of products used within the Fire Department
- Details of the Fire Department Written HAZCOM program, including an explanation of MSDSs and product labeling
- How to access MSDSs on FIREWIRE
- Use of proper personal protective equipment (PPE)

Employees will be advised upon initial assignment of any operations in their work area where hazardous chemicals are present and the location and availability of the written Hazard Communication Program, including the inventory of hazardous chemicals and associated Material Safety Data Sheets.

A. Firefighter Recruits

The Fire Department Industrial Hygienist provides Hazard Communication Training to new Firefighter Recruits while they are in the academy.

B. New Civilian Employees

New civilian employees shall receive Hazard Communication Training during the Fire Department New Employee Orientation Training.

C. Current Employees

Additional HAZCOM training will be provided to all employees when new hazardous products are introduced into their work area.

RESPONSIBILITIES

A. Safety Chief's Responsibility

1. Ensure on an annual basis that staff performs a chemical inventory with every chemical and maximum volumes and update the Environmental Database management System (EDMS).
2. Ensure employees receive Hazard Communication – Right to Know training
3. Ensure employees receive training on the chemicals used upon initial assignment and when new chemicals are added.
4. Ensure employees are advised of the location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals and Material Safety Data Sheets required by this section.

B. Fire Purchasing Responsibility
1. Ensure labels and Material Safety Data Sheets are supplied by the manufacturer when the chemical is delivered.
2. Ensure that the most CURRENT updated hardcopies of MSDSs are obtained and maintained at each work site.
3. Ensure Material Safety Data Sheets (MSDS) are provided and delivered to the Fire Stations for new products that enter the system.

C. Employee's Responsibility
1. Attend all hazard communication training as directed.
2. Become familiar with the safe handling procedures and emergency situation procedures (as provided on the various labels, instructions and/or Material Safety Data Sheets) for chemicals prior to using the chemical.
3. Ensure all work site containers of hazardous chemicals are labeled, tagged or marked with the identity of the material and appropriate hazard warnings.
4. Utilize personal protective equipment (PPE) recommended and/or required by the manufacturer of the chemical.
5. Employees shall not perform non-routine tasks involving hazardous chemicals or material without first receiving training. No employee shall place himself or herself at risk in the performance of any chemical-related or other task.

D. Industrial Hygienist Responsibility
1. The Industrial Hygienist is the program administrator and will be responsible for maintaining, updating and performing an annual review of the Hazardous Communication Written Program, as necessary.
2. Coordinate the annual chemical inventory as required by the City of Phoenix.
3. Conduct an audit of Material Safety Data Sheets. Notify management of deficiencies in MSDS availability in the workplace.
4. Provide technical assistance to assist in obtaining an MSDS for a chemical.
5. Conduct Hazard Communication training as required for new employees.
6. Provide Hazard Communication refresher training on an as-needed basis or when new products are introduced into the work environment.

E. Outside Contractors Responsibility
1. Contractors must inform the division of what hazardous chemicals are being used in the performance of their work and have Material Safety Data Sheets (MSDSs).

PURCHASING

Whenever possible, hazardous chemical will be procured by Resource Management in ready-to-use labeled containers. When products must be purchased in bulk, Resource Management personnel will transfer chemicals into pre-labeled, point-of-use containers to be supplied to end-users.