

CENTRAL STATE HOSPITAL  
PLAN

SUBJECT: HAZARDOUS MATERIALS AND WASTES MANAGEMENT

---

ANNUAL REVIEW MONTH: January

RESPONSIBLE FOR REVIEW: Safety/Environmental Health Mgr

LAST REVISION DATE: August 2010

---

---

**PURPOSE**

The purpose of this plan is to provide guidelines for the safe handling and disposal of hazardous materials and wastes in compliance with the U.S. Environmental Protection Agency (USEPA), Centers for Disease Control, the Georgia Environmental Protection Division (EPD), the Occupational Safety and Health Administration (OSHA), the Georgia Department of Labor, the Joint Commission on Accreditation of Healthcare Organizations (TJC) and other agencies addressing hazardous chemicals and wastes.

**DEFINITION OF HAZARDOUS MATERIALS AND WASTES**

The term "hazardous materials and wastes," as used in this plan, means any chemical/substance capable of producing adverse effects on the health or safety of humans and shall include infectious or biomedical waste materials. It includes chemicals/substances which are toxic, corrosive, explosive, flammable, reactive with other substances, irritating to the skin/eyes etc., or pose other potential harm or danger. If the manufacturer's label on the container of a chemical/substance contains hazardous warnings, then the substance/material should be considered potentially hazardous.

**HAZARD COMMUNICATION COORDINATOR**

The Georgia Department of Labor has requested that a Hazard Communication Coordinator be appointed for the purpose of coordinating and monitoring compliance with the requirements of OSHA, EPA, TJC, Georgia Department of Labor and other regulatory agencies regarding hazardous chemicals and wastes.

The Hazard Communication Coordinator, for Central State Hospital (CSH) is the CSH Safety Director, who can be reached at 445-4291.

**Responsibilities of the Hazard Communication Coordinator**

1. Develop, implement, promote, and monitor the hospital's hazardous materials and wastes management program to ensure the program meets all requirements of Georgia's Department of Labor Chapter 300-3-20 entitled Public Employees Hazardous Chemical Protection and Right to Know Rules.
2. Forward monitoring results to the Environment of Care Team (EOC).
3. Forward to the CSH Safety Director, copies of all incident reports of spills and exposures related to hazardous chemicals and wastes.
4. Develop policies and procedures to enhance safety management of hazardous chemicals and wastes at the hospital.
5. Coordinate the development and implementation of a written Hazard Communication Program which shall include training and education for all employees, volunteers, contractors, inmates and others working on the hospital campus.
6. Manage the automated MSDS tracking system to include quarterly verification of the master inventory testing of the system and staff training. The automated tracking system shall provide web based training/retrieval capabilities with a fax On-Demand backup.
7. The MSDS tracking/retrieval system shall be available to all employees during all shifts. Staff shall be trained and evaluated for competence in the use of the system.
8. Maintain a master file of Material Safety Data Sheets (MSDS) for all chemicals/substances used at the hospital and assure that copies of these are distributed to appropriate hospital service areas, departments, and offices.
9. Compile and maintain an up-to-date inventory list and location of all hazardous chemicals at the hospital.
10. Remain knowledgeable of hospital policies and procedures and the applicable requirements of OSHA, EPA, TJC, Georgia Department of Labor, and other agencies regarding hazardous chemicals and wastes.
11. Make recommendations to reduce exposure to hazardous chemicals and wastes by such methods as elimination, substitution of less hazardous materials, maintenance and inspection of ventilation and exhaust systems, changes in processes, isolation or physical enclosure of the hazard, and use of personal protective equipment or other safety equipment.
12. Provide technical assistance to the hospital services, departments, and offices on the applicable requirements of OSHA, EPA, TJC, Georgia Department of Labor, and other agencies regarding hazardous materials and wastes.
13. Resolve, or make recommendations to resolve, identified

- problems related to hazardous materials and wastes.
14. Develop a reference library of documents and publications on hazardous materials and wastes and applicable standards, laws, regulations, etc. which will be maintained in the EOC Chairperson's office.
  15. Develop an auditing/monitoring program, and review and evaluate annually the effectiveness of the Hazardous Materials and Wastes Management Plan.
  16. Review and evaluate the effectiveness of the training programs at least annually.

**RESPONSIBILITIES OF SERVICE CHIEFS, DEPARTMENT HEADS, AND OFFICE DIRECTORS**

- A. Maintain an accurate list and inventory of chemicals used or generated, and their locations in the service area/department/office. Update the list as use of chemicals/substances are discontinued and new chemicals/substances are acquired.
- B. Notify the Hazard Communication Coordinator when the use of a chemical/substance is discontinued and when a new chemical/substance is acquired, and provide a copy of any new Material Safety Data Sheets (MSDS) to the EOC Team chairperson. If, for some reason, a chemical product must be purchased directly without going through the hospital Materials Management Department, the purchaser must provide a copy of the MSDS to Materials Management prior to using the substance. Failure to do so could slow the treatment process and in the case of adverse exposures to an employee or client, could result in disciplinary action.
- C. For any chemical received via CSH Receiving Department, contact the CSH Materials Management to obtain an MSDS when it is found to be missing for any chemical/substance, if it is found to be incomplete, or if the MSDS contains any blanks. Provide the MSDS to Materials Management if the chemical is purchased directly.
- D. Assure that employees receive appropriate training and instructions regarding hazardous chemicals and wastes in their workplace, including training in emergency response.
- E. Develop, through the Service Areas/Department EOC Team, internal policies and procedures for the safe management of hazardous chemicals, wastes, gases and vapors. Furnish a copy of this plan to the Hazard Communication Coordinator.
- F. Assure that hazardous chemicals, wastes, gases and vapors within the organization are handled and disposed of in accordance with applicable policies, procedures, laws, and

- regulations.
- G. Work to reduce exposure to hazardous chemicals and wastes in the organization by utilizing such methods as elimination, substitution of a less hazardous material for the material being used, ventilation and exhaust systems, changes in processes, isolation or physical enclosure of the hazard, and personal protective equipment (chemical resistant gloves, chemical safety glasses, etc.).
  - H. Assure that appropriate personal protective clothing/equipment (chemical resistant gloves, chemical safety glasses, etc.) are available for employees to use as called for by the MSDS and that they are being used by the employees as outlined in section XII of this plan.
  - I. Assure that all containers of hazardous chemicals are properly labeled; this applies to both the original manufacturers'/suppliers' containers and secondary containers into which materials are placed.
  - J. Have work areas periodically inspected for compliance with the applicable requirements related to hazardous materials and wastes (e.g, proper container labeling, availability of MSDS, availability and use of personal protective equipment, correct handling and storage, adequate ventilation/exhaust systems, safe work practices, etc.). This should be included as part of the internal EOC Team's inspection that will be provided to the CSH Safety Director.
  - K. Take necessary steps to resolve identified problems related to hazardous chemicals and wastes; consult with the hospital's Hazard Communication Coordinator for assistance and advice as needed.
  - L. Report to the Fire Department immediately all inside spills/leaks that are of such size that they cannot be properly cleaned up by service area/department/office personnel. Clean up operations must be done according to the applicable MSDS.
  - M. Report all spills/leaks, chemical accidents, chemical over exposures, or exposure to hazardous waste to the Hazard Communication Coordinator at 4291, and complete the Critical Incident Report (CIR) form. All accidental contact with chemical or hazardous waste will be documented.
  - N. Know how to access adequate quantities of spill clean up material. The amounts and type of clean up material must be based on the work site chemical inventory.
  - O. Maintain all documentation required for activities performed, including permits, licenses and manifests.
  - P. Assure that adequate and appropriate space and equipment are provided for the safe handling and storage of hazardous materials and wastes.

- Q. Assure that hazardous waste storage and processing areas are effectively separated from client care, food preparation and food serving areas.

**RESPONSIBILITIES OF DIRECTOR OF MATERIALS MANAGEMENT**

- A. Have Receiving personnel assure that containers of chemicals/substances delivered to the hospital are properly labeled with the name of the chemical/substance, appropriate hazard warnings, and the name and address of the manufacturer/supplier.
- B. Obtain MSDS's on all chemicals/substances used by the hospital and have access to the web-based MSDS inventory.
- C. Submit copies of each MSDS received to the hospital organizations which use the particular chemical/substance, and the Hazard Communication Coordinator.
- D. Coordinate with the Hazard Communications Coordinator to obtain copies of MSDS's determined not to be available at the hospital.
- E. Assure that Receiving and Warehouse personnel have ready access to the MSDS Tracking and retrieval system and that they follow safe handling and storage procedures and use personal protective clothing/equipment when appropriate.

**RESPONSIBILITIES OF ALL EMPLOYEES**

- A. Participate in required education and training programs, to include emergency response. Employees shall be able to describe and/or demonstrate the use of the MSDS tracking system and the safe use, storage and disposal of hazardous chemicals.
- B. Before using a chemical product, make sure that it contains a label that identifies it and includes hazard warnings, if any. Don't remove or deface the label. If the label is missing or unreadable, report this to your supervisor so he/she can have the container properly labeled. Follow the instructions and warnings on the labels, the MSDS, and those of your supervisor. If you have questions about a chemical or how to use it, ask your supervisor.
- C. Always read the MSDS before using a chemical product. Use personal protective clothing/equipment (chemical resistant gloves, chemical safety glasses, etc.) when recommended by the MSDS or your supervisor.
- D. Make sure there is adequate ventilation in the work area.
- E. Never mix a chemical with another substance, even water, unless instructed to do so by the product label or the manufacturer's instructions.

- F. If chemical is transferred into a secondary container, label the secondary container according to Section VIII of this plan.
- G. Keep flammable and explosive materials away from heat sources.
- H. Ensure separate storage for chemicals which may react to one another.
- I. Keep containers closed when not in use.
- J. Wash hands thoroughly before eating or drinking.
- K. Report leaks/spills and damaged containers to your supervisor immediately. Follow the CSH guidelines for handling Major and Minor Spills.
- L. Promptly report any chemical accident or chemical exposure, or exposure to hazardous waste material, and any indication of developing symptoms from such exposure to your supervisor.
- M. Store and dispose of each chemical/substance properly.

#### **CHEMICALS AND SUBSTANCES**

- A. By law, chemical manufacturers or importers must supply a copy of the MSDS with the initial shipment of a substance or chemical, and with the first shipment after any change in or update of the MSDS.
- B. The MSDS is an important source of information on a hazardous chemical/substance. There is no mandatory form or format for an MSDS, but all should include the following:
  - (1) Product or chemical identity used on the manufacturer's container label.
  - (2) Name, address, and phone number for hazard and emergency information.
  - (3) Date the MSDS was prepared.
  - (4) Chemical and common names of the hazardous ingredients found in the product.
  - (5) OSHA permissible exposure limits (PEL), ACGIH (American Conference of Governmental Industrial Hygienists) threshold limit values (TLV), or other applicable limits.
  - (6) Physical and chemical characteristics of the product, such as flash point, vapor pressure, appearance, and odor.
  - (7) Physical hazards, including the potential for fire, explosion, and reactivity, and the proper extinguishing media.
  - (8) Primary routes of entry into the body, such as ingestion, inhalation, and skin absorption.
  - (9) Acute and chronic health hazards, including signs and symptoms of exposure and medical conditions aggravated by exposure.
  - (10) Carcinogenic hazard information.

- (11) Emergency and first aid procedures.
- (12) Safe handling procedures, including work practices, spill or leak clean up, storage and transport precautions, and protective measures for maintenance.
- (13) Appropriate waste disposal methods.
- (14) Exposure control methods, including engineering controls, work practices, and proper personal protective equipment.

### **LABELING**

- A. MANUFACTURERS' LABELS: Chemical manufacturers, importers, and distributors are required to assure that each container of hazardous chemicals/substances they sell is labeled with:
  1. The name of the chemical/substance.
  2. Appropriate hazard warnings.
  3. Name and address of manufacturer/supplier.
- B. SECONDARY CONTAINERS (both portable and stationary): These may be soap dispensers, storage tanks, spray bottles, temporary containers, or any container used by CSH employees for repackaging the product from the original container.
  1. Containers used by more than one person and/or used over several work shifts shall be labeled with the following:
    - a. Trade name - as it appears on the original container.
    - b. MSDS number - a number will be assigned to all chemicals used at the hospital; refer to the MSDS manual in the area for this number or call the Hazard Communication Coordinator at 4291.
    - c. Appropriate hazard warnings - as they are listed on the original container.
  2. Secondary portable containers used when a chemical is transferred from the original container to one used by only one person, with the contents being used before the end of the shift, do not require a label.

### **INFORMATION AND TRAINING ON HAZARDOUS CHEMICALS AND SUBSTANCES**

1. All employees shall receive training on hazardous chemicals/substances; new employees will receive the training as part of the formal orientation program for new employees. The "Employees' Right-To-Know" training program will include at least the following:
  - (a) An overview of the federal and state hazard communication laws (employees' right-to-know, etc.) and the hospital's Hazard Communication Program.
  - (b) The use of the web-based MSDS tracking/retrieval system.

- (c) The location of hazardous chemicals/substances at the hospital.
  - (d) The location and availability of lists of hazardous chemicals/substances in the various areas of the hospital, MSDS, and the hospital's written Hazard Communication Program.
  - (e) Methods and observations that may be used to detect the presence or release of a hazardous chemical/substance in the work area (odor, visual appearance, etc.).
  - (f) The physical and health hazards of chemicals/substances in the work area.
  - (g) The measures employees can take to protect themselves from these hazards (appropriate work practices, personal protective equipment, etc.).
  - (h) An explanation of the labeling system, the MSDS, and how employees can obtain appropriate hazard information.
2. Appropriate refresher/update training on hazardous chemicals/substances shall be provided when necessary but at least annually.
  3. Employees who use hazardous substances as a part of their job assignments shall receive training in the proper use of these chemicals/substances. Thereafter, any new chemicals introduced into the workplace or new hazards associated with any chemicals/substances currently in use shall be presented to employees working with these chemicals/substances prior to working with these chemicals or as soon as possible after the information is made available to CSH.
  4. Service chiefs, department heads, and office directors will assure that supervisors review with their employees the hazards of the chemicals/substances in the work area, appropriate work procedures and precautions, and the proper use of personal protective equipment. (This is particularly important when new chemicals/ substances are acquired, when new employees are hired or assigned to a job, and when there are changes in a job.)

#### **DISPOSAL OF HAZARDOUS CHEMICAL WASTES**

The service chief, department head and office director shall assure that hazardous chemical wastes and bio-medical wastes generated in their respective organizations are disposed of in a manner which complies with all federal and state regulations. The service area/department EOC Team will develop a chemical waste disposal plan for review by the Safety Director and the CSH EOC Team. The Radiology Department shall manage/dispose of radioactive waste in compliance with their internal procedure for the Handling and

## **Disposal of Radioactive Waste Materials**

Service chiefs, department heads and office directors will notify the Safety Director when hazardous chemicals or wastes require disposal by an outside company or agency. The Safety Director shall complete EPA Form 8700-22 (Rev. 4/85), Uniform Hazardous Waste Manifest, and have a representative of the disposal company sign the form.

### **BROKEN GLASS**

All broken glass will be treated as a SHARP. **All broken glass clean up should start as soon as possible.**

- a) Contain the broken glass to a small area by using mechanical means (pans, tongs, brush, etc).
- b) During off hours of Housekeeping Dept., the Nurse or Building Supervisor will assign staff to remove the broken glass.
- c) Always put on protective gloves before removing broken glass.
- d) Glass will **ONLY** be picked up by mechanical means (brush, pan, tongs, forceps).
- e) Contaminated glass with moisture will have absorbent cloth placed on the spill and glass.
- f) Housekeeping and/or Maintenance will respond to any glass breakage.
- g) Maintenance personnel will be responsible for cleaning up of any light bulbs or glass products that are broken while performing their duties. They will also be responsible for disposal of any broken material to the proper disposal.
- h) During off-hours of Housekeeping Department, employees will clean up broken glass. Small pieces of glass will be placed in sharps container. Large pieces of glass shall be placed in puncture resistant container and held until housekeeping arrives the next morning.

**NOTE: MAKE SURE TO NOTIFY HOUSEKEEPING FOR THE DISPOSAL OF BROKEN GLASS.**

### **EXEMPTIONS**

1. Laboratory Workplace Programs:
  - A) The Clinical and Pathological Laboratories at CSH are exempt from the training requirements of this program for

specific chemicals. However, all laboratory employees will receive the general training program and the annual update training as required.

- B) Laboratories shall not be required to prepare Material Safety Data Sheets (MSDS) for compounds created as a result of any test.
- C) The Clinical and Pathological Laboratories at CSH are exempt from all CSH labeling requirements listed in Section VIII, but will follow all requirements of State Licensure, JCAHO and Clinical Laboratory Policy and Procedure #32.

### **RESPIRATORY PROTECTION PROGRAM**

#### A. PURPOSE/SCOPE

- 1. To establish a respiratory protection program for all of the employees working in an atmosphere with excessive airborne contaminants (i.e., dust, mist or vapors) within the areas owned and operated by Central State Hospital.

#### B. TYPES OF RESPIRATORS

- 1. Dust, fume, and mist masks - These air purifying respirators are the most common respirators used for protection against particulates under normal operating conditions. Four styles of facepieces are available: quarter masks, half masks, full facepiece and disposable models.

- a. The Infection Control Committee has determined that a type N-95 mask will be used for TB protection. Additional information is included in the Infection Control Policy.

- 2. Chemical cartridge respirators - These air purifying respirators may be used for protection against low concentrations of ammonia, acid gases, alkaline gases, mercury vapors, organic vapors, and pesticides. Protection against more than one contaminant or a combination of gases and particulates may be attained through the use of an appropriate solvent cartridge and/or filter combinations. Facepiece styles are limited to half masks and full facepieces. There are also some disposable half masks available. It is important that

maximum use concentration limitations on the sorbent cartridges are followed. As an example, organic vapor cartridges cannot be used in concentrations greater than 1000 ppm.

3. Self contained breathing apparatus (SCBA)

- a. Demand devices - Supply air to the facepiece; only upon inhalation. They are not acceptable for use in conditions Immediately Dangerous to Life and Health (IDLH) and may have limited protection factor, depending on the facepiece being used.
- b. Pressure-demand devices - In addition to providing air for respiration, these devices provide a continuous flow of air into the facepiece to maintain a positive pressure. They are acceptable for use in IDLH as well as oxygen deficient environments.

C. SELECTION OF RESPIRATORS

1. Selection of the proper respirator shall be based upon:
  - a. Chemical properties of the contaminant
  - b. Physical state of the contaminant
  - c. Contaminant concentration
  - d. The TLV for the contaminant
  - e. Respirator limitations
  - f. Individual fit
  - g. Comfort
  - h. Nature of the operation or process
  - i. Time period of respirator use
  - j. Worker activity

D. RESPIRATOR USE

1. Use of respirators is acceptable under the following conditions:
  - a. When engineering and work practices are not feasible.
  - b. When engineering and work practices are not adequate.
  - c. During implementation of engineering and work practice controls.
  - d. For specific operations involving short intermittent exposures.
  - e. Emergencies
2. The buddy system shall be utilized whenever a respirator

is worn. No person shall be left alone in a contaminated atmosphere without another person monitoring the activity to ensure their well being.

3. Contact lenses shall not be worn with a respirator. If eye protection is necessary, it shall not interfere with the face piece of the respirator.
4. Any person assigned a respirator shall be clean shaven before using the respirator. Respirator fit shall only be considered acceptable when a good face seal exists for the wearer. No respirator shall be issued to an employee without a fit check of the seal between the facemask and the face.
5. The respirator shall be permanently assigned to an individual when issued for worktasks not involving emergency conditions.
6. Only full face airline respirators or self contained breathing apparatus shall be used to protect against gaseous material highly irritating to the eyes and/or skin.

E. RESPIRATOR MAINTENANCE AND CARE

1. With the exception of the Self Contained Breathing Apparatus (SCBA) or air-line respirators which are used in emergency situations, respirators are to be assigned to employees on an individual basis and not exchanged.
2. Respirators are to be cleaned daily or after each use by the individual wearer. Chemical canisters are to be disposed of after each use.
3. The Self Contained Breathing Apparatus (SCBA) or air-line respirator is to be inspected and tested monthly by the Supervisor. All test results must be retained on the SCBA Testing Log.
4. Safe and effective use of compressed air cylinders used on Self Contained Breathing Apparatus (SCBA) requires the user to adhere to the following guidelines:
  - a. **DO NOT** over pressurize the cylinder. The rated cylinder service pressure is identified on the cylinder. The rated service pressure is either stamped into the shoulder of the cylinder or marked on the cylinder label.
  - b. When refilling the cylinder, use only Type 1, Grade D or better breathing air as identified in the Compressed Gas Association (CGA) Commodity Specification for Air. Additionally, the water vapor content of the breathing air should be less

than 50mg/m<sup>3</sup> for cylinders with a service pressure up to 3,000 psig and less than 35mg/m for cylinders with a service pressure of 4,500 psig.

- c. Periodically, and prior to refilling, check to ensure the cylinder hydrostatic retest date is within the prescribed time period.
- d. Prior to refilling, inspect the cylinder for damage.
- e. Do not refill the cylinder at an excessive rate. A general industry standard is a rate less than 300 psi per minute.
- f. After filling the cylinder with breathing air to the rated service pressure, check the following areas for leakage using a solution of soap and water:
  - o cylinder to cylinder valve connection
  - o cylinder valve burst disc assembly
  - o cylinder valve handwheel
  - o cylinder valve pressure gaugeIf leakage is detected, the cylinder should be removed from service and repaired by a qualified trained technician.
- g. Check the cylinder pressure as indicated on the cylinder valve pressure gauge at regularly scheduled intervals. For stored apparatus, the check intervals should be monthly. For situations requiring frequent use, the pressure should be checked daily. If a loss in pressure is observed, removed the cylinder from service.
- h. Always check the cylinder pressure immediately prior to use.
- i. Do not modify the cylinder or any of its related components including safety related devices.
- j. Always store compressed air cylinders in a full or empty condition. Storage of partially full cylinders can result in less than expected service life.

#### **WARNING**

**COMPRESSED AIR CYLINDERS SHOWING EVIDENCE OF EXPOSURE TO FIRE OR HIGH TEMPERATURE SHOULD BE IMMEDIATELY REMOVED FROM SERVICE.**

#### **F. MEDICAL CLEARANCE**

- 1. All CSH employees who are required or may be required to wear Respiratory Protection must be medically authorized through an annual physical examination.

2. Under the Respiratory Protection Policy, the CSH Human Resources Director is responsible for the coordination of medical authorization for respiratory protection. Medical clearance coordination includes:
  - a. Schedule initial history and medical examinations for employees identified for respirator usage.
  - b. Medically determine that the employee is/is not physically capable to perform work while using respiratory protection equipment. This includes both air purifying and the Self Contained Breathing Apparatus (SCBA).
  - c. Assure completion of the Respiratory Protection Authorization Form to indicate employee medical approval/disapproval for respirator usage and forward the pink copy of the form to the Safety Officer. The white copy is kept in Employee Health in the employee's medical file in the Human Resources Director's Office.
  - d. The yellow copy of the Respiratory Protection Authorization Form is to be forwarded to and retained by the Department Manager of the tested employee.
  - e. Medical status records and clearance for each respirator user requires annual reevaluation through the Human Resources Director's Office.
3. The Safety Director, in coordination with the CSH Human Resources Director, is to maintain a log of all medically approved users of respirators.

G. RESPIRATORY PROTECTION TRAINING

1. Because of the many inherent limitations of respiratory protection devices, it is important that both the user and supervisor are properly trained in the use of all respiratory equipment including SCBA. The content of training must include:
  - a. Reasons for the need of respirators.
  - b. The nature, extent and effects of hazards to which the user will be exposed.
  - c. An explanation of the efforts to reduce contaminant concentrations.
  - d. An explanation of respirator selection.
  - e. An explanation of operation, capabilities and limitations of the respirator.
  - f. Instruction on donning and wearing the respirator.
  - g. An opportunity to handle and wear the respirator in

- a test atmosphere.
  - h. An explanation of proper maintenance and storage.
  - i. Instructions for emergency situations and special respirator use.
  - j. Instruction on regulations concerning respirator use.
2. All training participants must be provided with an opportunity to handle the respirator, fit it properly, wear it in normal air, and quantitatively or qualitatively test its facepiece for a seal.
  3. Training is to be assured annually by the individual Service Chief, Department Head, or Office Director. If instruction in the use of SCBA is included in training, the trainer must be certified.
  4. A log of persons who have received annual respiratory protection training must be maintained by the CSH Human Resources Director with the assistance of the CSH Safety Director.

**Approved:**

**This policy has been approved by the RHA and the CSH Clinical Director on September 21, 2010.**