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CHECKLIST OF EPA TRANSMITTALS

TITLE
OCCUPATIONAL HEALTH AND SAFETY MANUAL -- 1986 EDITION

When kept current, this checklist permits the user to see at a glance which transmittals have been filed.

SERIES			SERIES			SERIES		
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CHAPTER 1 - POLICY AND RESPONSIBILITIES

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CHAPTER 1 - POLICY AND RESPONSIBILITIES

1. PURPOSE. This Manual establishes policy, responsibilities, and procedures for the conduct of the Agency's Occupational Health and Safety programs.

2. POLICY. It is the policy of the Environmental Protection Agency to administer its programs in a manner that will assure its employees places and conditions of employment free from recognized hazards which are likely to cause death or serious harm.

3. REFERENCES.

a. Section 7902(c), Title 5, United States Code.

b. Occupational Safety and Health Act of 1970, Sections 6, 19, and 24.

c. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees.

d. 29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs.

e. OMB Circular A-11 (Sections 13.2(f) and 13.5(f)).

f. EPA Conduct and Discipline Order.

g. EPA Training and Development Manual.

4. DEFINITIONS.

a. Designated Agency Occupational Health and Safety Official. The term Designated Agency Occupational Health and Safety Official means the senior management official who, as required by E.O. 12196, is designated as responsible for the management of the occupational health and safety programs within the EPA. This Official is the Assistant Administrator for Administration and Resources Management.

b. Agency Occupational Health and Safety Officer. The term Agency Occupational Health and Safety Officer means the person who manages the occupational health and safety programs at an organizational level below the Assistant Administrator for Administration and Resources Management. This Officer is the Director, Occupational Health and Safety Staff, under the supervision of the Director, Office of Administration.

c. Occupational Health and Safety Designee. The term Occupational Health and Safety Designee means a person who has been officially appointed by the Officer-in-Charge of a Reporting Unit, Establishment, or

Workplace to be responsible to him or her for managing the occupational health and safety programs at that location.

d. Officer-in-Charge of a Reporting Unit, an Establishment, or a Workplace. The terms Officer-in-Charge of a Reporting Unit, an Establishment, or a Workplace means the senior official at each Agency location designated as a Reporting Unit, Establishment, or Workplace in Chapter 3 of this Manual.

e. Occupational Health and Safety Manager/Specialist. The term Occupational Health and Safety Manager/Specialist means a person who meets the Office of Personnel Management standards, which include but are not limited to these occupations:

Safety Manager/Specialist, GS-018
Safety Engineer, GS-803
Fire Protection Engineer, GS 804
Industrial Hygienist, GS-690
Fire Protection Specialist/Marshal, GS-081
Health Physicist, GS-1306
Occupational Medicine Physician, GS-602
Occupational Health Nurse, GS-610
Air Safety Investigation Officer, GS-1815
Aviation Safety Specialist, GS-1825
Chemist, GS-1320
Highway Safety Manager, GS-2125

or equally qualified military, agency, or non-government personnel as determined by the Director, Occupational Health and Safety Staff.

f. Laboratory Health Officers. Laboratory Health Officers are laboratory-based personnel who have expertise in health effects and chemical hazards related to laboratory operations. Laboratory Health Officers are officially appointed by the Officer-in-Charge and support and functionally report to the Occupational Health and Safety Designee for that Reporting Unit, Establishment or Workplace.

g. Occupational Health and Safety Inspector. The term Occupational Health and Safety Inspector means an Occupational Health and/or Safety Manager/Specialist (as defined in 4.e. above) with additional experience and/or training in health and safety hazard recognition and evaluation.

h. Representatives of Management. The term representatives of management means a supervisor or management official as defined in the applicable labor-management regulations program covering the affected employees.

i. Reporting Unit. The term Reporting Unit means a facility where Agency business is conducted and may include laboratories and field offices and other subordinate facilities that report to the primary

facility. A Reporting Unit as used in this Manual refers to the Headquarters complex, all Regions, the Environmental Research Centers and Laboratories, and other field units designated by the Director, Occupational Health and Safety Staff, in Chapter 3 of this Manual.

j. Establishment. The term Establishment means a single physical location where EPA programs are conducted and which receives occupational health and safety management support from a higher level of management, which may be located at a different facility. Establishment as used in this Manual refers to regional laboratories and field offices, national programs at the Assistant Administrator level and other entities as designated by the Director, Occupational Health and Safety Staff, in Chapter 3 of this Manual.

k. Workplace. The term Workplace means a physical location where the agency's work or operations are performed. A Workplace as used in this Manual refers to a satellite field unit or a distinctly separate activity located within an Establishment but which shares in the occupational health and safety programs at the Establishment.

l. Imminent Danger. The term imminent danger means any conditions or practices in any EPA Reporting Unit, Establishment, Workplace or at any EPA field site that could reasonably be expected to cause death or serious physical harm either immediately or before the danger could be eliminated through normal administrative procedures.

m. Serious. The word "serious" when used in this Manual with "hazard," "violation" or "condition" means a hazard, violation or condition which has a substantial probability of causing death or significant physical harm.

n. Occupational Health and Safety Committee. The term occupational health and safety committee means a committee that meets the requirements of Chapter 5 of this Manual.

o. Recordable Occupational Injuries or Illnesses. The term recordable occupational injuries or illnesses means any occupational injuries or illnesses which result in:

1) Occupationally caused deaths regardless of the time between injury and death, or the length of illness;

2) Nonfatal occupational illnesses; or

3) Nonfatal occupational injuries which involve one or more of the following: days away from work or medical treatment.

p. EPA Reportable Occupational Accidents and Illnesses. The term EPA reportable accidents and illnesses means any and all job-connected incidents involving Agency personnel, property, or operations which result in personal injury, illness, fire, potential claims against the Government, or property damage of $100.00 or more, or to any incident having the potential to cause death or serious injury.

q. Recognized Hazard. A source of danger which could cause physical harm or toxic effects in humans which has been identified by printed or written data and for which control measures have been recommended or established.

5. APPLICABILITY.

a. Executive Order 12196, 29 CFR 1960, and the provisions of this Manual apply to all EPA employees at all operational levels.

b. EPA employees who work in facilities of private employers are covered by the Agency's occupational health and safety programs. EPA employees may be withdrawn from private sector facilities if safe and healthful working conditions cannot be assured by the use of administrative controls and personal protective equipment.

c. Executive Order 12196, 29 CFR 1960, and the provisions of this Manual do not apply to employees or to the working conditions of employees of EPA contractors, regardless of whether the contractor employees perform their duties in EPA owned or leased facilities, with EPA equipment, or together with EPA personnel. Protection of employees of EPA contractors is assured under the other provisions of the Occupational Safety and Health Act of 1970.

6. BACKGROUND. Section 1-201 of Executive Order 12196 requires the EPA Administrator to establish and operate an occupational health and safety program in accordance with Section 19 of the Occupational Safety and Health Act of 1970 and with the basic program elements issued by the Secretary of Labor in 29 CFR 1960. The Administrator, after consultation with Agency employees or their representatives, may request that the Secretary of Labor approve alternate occupational health and safety program elements which are consistent with the Agency's mission, size, and organization.

To comply with Section 19 of the Occupational Safety and Health Act of 1970, Executive Order 12196, and 29 CFR 1960, the Administrator shall:

a. Designate an Agency Occupational Health and Safety Official at the Assistant Administrator level to manage and administer the Agency's occupational health and safety programs and to represent his or her interest and support.

b. Comply with all standards issued under Section 6 of the Act, except when the Secretary of Labor has approved alternate Agency standards.

c. Assure prompt abatement of unsafe or unhealthful working conditions or develop abatement plans and interim steps to protect employees when these conditions cannot be promptly corrected.

d. Establish procedures to assure that employees who file reports of unsafe or unhealthful working conditions or who participate in other occupational health and safety program activities are not subject to restraint, interference, coercion, discrimination or reprisal.

e. Assure that periodic inspections are performed at all Agency facilities by personnel having the equipment and competence to recognize hazards, and that employee representatives accompany inspectors during the inspections.

f. Assure response to employee reports of hazardous conditions and require inspections within 24 hours for imminent dangers, 3 working days for potential serious conditions, and 20 working days for other conditions. Assure the right to anonymity of those making the reports.

g. Operate an occupational health and safety management information system to provide sufficient data to identify unsafe and unhealthful working conditions, and to establish program priorities.

h. Provide occupational health and safety training for top management officials, supervisors, occupational health and safety specialists, occupational health and safety inspectors, collateral duty health and safety personnel, occupational health and safety committee members, employee representatives, and other employees.

i. Submit an annual report to the Secretary of Labor on the Agency's occupational health and safety programs. This report will include information on the Agency's self evaluation programs of the previous Calendar Year and objectives for the current year.

j. Authorize safety and health program personnel to utilize such expertise from whatever source available, including but not limited to other agencies, professional groups, consultants, universities, labor organizations, and safety and health committees.

6. RESPONSIBILITIES.

a. Program Management.

1) Administrator. The Administrator is responsible for the development, implementation, and evaluation of the Agency's occupational health

and safety programs in accordance with the requirements of Section 19 of the Act, Executive Order 12196, and the basic program elements in 29 CFR 1960, or approved alternate program elements.

2) Assistant Administrator for Administration and Resources Management. The Assistant Administrator for Administration and Resources Management as the Designated Agency Occupational Health and Safety Official, through the Director, Office of Administration, is responsible for establishing Agency occupational health and safety policies, programs, standards, goals, objectives, and priorities, and for establishing an organization, including the designation of safety and health officials at appropriate levels, with adequate budget and staff to implement the occupational health and safety programs at all EPA operational levels.

3) Director, Occupational Health and Safety Staff. The Director, Occupational Health and Safety Staff, under the supervision of the Director, Office of Administration, is responsible for developing Agency occupational health and safety policies, programs, standards, goals and objectives, for evaluating the effectiveness of the Agency's occupational health and safety programs at all operational levels, and for providing technical support to the Agency's Occupational Health and Safety programs.

b. Programs Implementation.

1) Assistant Administrators, Regional Administrators and Laboratory Directors. The Assistant Administrators and Regional Administrators and Laboratory Directors and others designated as Officers-In-Charge of Reporting Units are responsible for implementing the Agency's Occupational Health and Safety Programs at the Reporting Unit and at all Establishments and Workplaces within their area of jurisdiction.

2) Occupational Health and Safety Designees. The Occupational Health and Safety Designees at all operational levels are responsible for assisting the Officers-in-Charge of their Reporting Units, Establishments, or Workplaces in managing, developing, organizing, directing, and evaluating the occupational health and safety programs, and for coordinating illness and injury reporting and recordkeeping requirements; analyzing accidents and injuries for prevention and control; and providing technical advice to management officials in the implementation of program policy and standards.

3) Laboratory Health Officers. Laboratory Health Officers are responsible for providing advice and guidance on occupational health-related matters affecting the Reporting Unit, Establishment or Workplace; and for otherwise providing assistance to the Occupational Health and Safety Designee in developing, organizing, directing, and evaluating the occupational health elements of the occupational health and safety programs on the local level.

c. General.

1) Supervisors. Supervisors are responsible, to the extent of their authority, for the health and safety of their employees and for furnishing them employment and a place of employment which are free from recognized hazards that are likely to cause death or serious harm. They shall comply with the Agency's occupational health and safety standards and with all rules, regulations, and orders issued by the Agency with respect to the occupational health and safety programs and shall enforce correct work practices.

2) Employees. Employees shall comply with the Agency's occupational health and safety standards, rules, regulations, and orders which are applicable to their own actions and conduct. Employees shall also use the safety equipment, personal protective equipment, and other health and safety devices, and shall follow the procedures, provided or as directed, that the Agency deems necessary for their protection.

CHAPTER 2 - OCCUPATIONAL HEALTH AND SAFETY PROGRAM ADMINISTRATION

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APPENDIX 2A - PROCEDURES FOR REPORTING ALLEGED RESTRAINT, INTERFERENCE, COERCION, DISCRIMINATION OR REPRISAL FOR PARTICIPATING IN THE AGENCY'S OCCUPATIONAL HEALTH AND SAFETY ACTIVITIES

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CHAPTER 2 - OCCUPATIONAL HEALTH AND SAFETY PROGRAM ADMINISTRATION

1. GENERAL. The Agency Designated Occupational Health and Safety Official shall assure that occupational health and safety officials are established at each appropriate Agency level with sufficient authority and responsibility to assure:

a. That qualified, competent personnel are available to manage the Agency's Occupational Health and Safety program.

b. That funds for necessary health and safety equipment, materials, training, and medical monitoring are available.

c. That employees are made aware of the Agency's occupational health and safety programs through dissemination of information on Agency standards, programs, employee rights and responsibilities, and the Agency's procedures for responding to reports by employees of unsafe or unhealthful working conditions.

d. That a person at each Agency Reporting Unit is appointed to represent EPA management in the resolution of conflicts that may exist between EPA and GSA and other Federal agencies regarding Federal buildings, leased space, products purchased or supplied, and other requirements affecting Agency employees' health and safety.

e. That procedures are established to assure that no EPA employee is subject to restraint, interference, coercion, discrimination or reprisal for filing a report of unsafe and unhealthful working conditions or for other participation in the Agency's occupational health and safety activities.

f. That the program is evaluated to determine the effectiveness of the occupational health and safety programs.

g. That active participation in Field Federal Safety and Health Councils is supported to facilitate the exchange of ideas and information about occupational health and safety with other Federal agencies.

h. That the performance evaluations of supervisory employees, or other appropriate management officials, measure their performance in meeting the requirements of the Agency's occupational health and safety programs, consistent with their assigned responsibilities and authority.

2. PROGRAM RESOURCES. The Officers-in-Charge of Reporting Units shall ensure that their budget submissions include appropriate funds and other resources to implement and administer effectively the Agency's occupational health and safety programs at their Reporting Units, and at all Establishments and Workplaces under their jurisdictional authority.

Appropriate funds and other resources for administering the occupational health and safety program shall provide for, but not be limited to:

a. Sufficient personnel to implement and administer the program at all levels, and necessary administrative costs such as training, travel, and personal protective equipment;

b. Abatement of unsafe or unhealthful working conditions related to Agency operations or facilities;

c. Safety and health sampling, testing, and diagnostic and analytical tools, and equipment, including laboratory analyses;

d. Any necessary contracts to identify, analyze, or evaluate unsafe or unhealthful working conditions and operations;

e. Program motivation and promotion material such as publications posters, or films;

f. Technical information, documents, books, standards, codes, periodicals, and publications; and

g. Occupational medical monitoring for employees.

3. DISSEMINATION OF OCCUPATIONAL HEALTH AND SAFETY PROGRAM INFORMATION.

a. Officers-in-Charge of Reporting Units shall promote employee awareness of the Agency's occupational health and safety programs through:

1. Providing copies of Executive Order 12196, 29 CFR 1960, and the Agency's occupational health and safety program to all employees upon request. Also, copies of Agency standards and other applicable occupational health and safety standards shall be available to all employees for review upon request.

2. Posting in a conspicuous place at each Agency location information regarding provisions of the Act, Executive Order 12196, 29 CFR 1960, and the Agency's occupational health and safety programs.

3. Posting a copy of the Agency's policy poster in a conspicuous place at each Agency location.

4. Bringing occupational health and safety matters to the attention of employees through existing inhouse publications and memoranda, e.g., newsletters, bulletins, or handbooks.

b. Officers-in-Charge are encouraged to purchase health and safety promotional items such as posters, booklets, pamphlets, and audiovisual

materials from commercial and Governmental sources which produce these items. The following list of potential sources is furnished for information only. It does not include all commercial sources marketing occupational health and safety promotional materials and must not be considered as mandatory sources of supply.

1. National Safety Council, 444 North Michigan Avenue, Chicago, Illinois 60611;

2. National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269;

3. Dray Publications, Inc., Deerfield Massachusetts 01342;

4. Channing L. Bete, Co., Inc., 200 State Street, South Deerfield, Massachusetts 01373;

5. U.S. Department of Labor, Office of Information, OSHA, 200 Constitution Avenue, N.W., Washington, D.C. 20210;

6. General Services Administration, National Archives and Records Service, National Audiovisual Center, Washington, D,C, 20210;

7. American Medical Association, Department of Occupational Health, Division of Scientific Activities, 535 Dearborn Street, Chicago, Illinois 60610;

8. Local Fire Departments;

9. Local Municipal Offices of Public Safety;

10. Local Law Enforcement Agencies;

11. Local Safety Councils;

12. State, County, and Local Health and Safety Officials; and

13. Local chapters of The American Red Cross, and The American Heart Association.

4. LIAISON WITH GENERAL SERVICES ADMINISTRATION AND OTHER FEDERAL AGENCIES. The Officers-in-Charge of Reporting Units shall appoint a representative to coordinate with GSA and other Federal agencies to assure that Agency standards are met for buildings and facilities, product safety and other safety and health services. This coordination will include but not be limited to:

a. Building and Facility Health and Safety.

(1) Assuring that GSA furnishes a pre-occupancy inspection of any Federally owned or leased space offered for EPA occupancy;

(2) Providing space that meets any EPA special health and safety requirements;

(3) Assuring that any repair, renovation, or alteration of owned or leased space be planned and controlled to reduce or eliminate any hazardous exposure to EPA employees; and

(4) Requesting an investigation of employee reports of unsafe or unhealthful conditions within GSA's scope of responsibility, and monitoring the abatement of any conditions found.

b. Product Safety.

(1) Ensuring that items procured for use by the Agency's employees are designed and manufactured to meet applicable health and safety standards.

(2) Ensuring that all hazardous materials procured for use by the Agency's employees are labeled, packaged, and shipped so as to alert users to their flammability, toxicity, compatability, first aid procedures and normal and emergency handling and disposal procedures.

(3) Assuring that the safety rescue and personal protective equipment available for purchase meets the Agency's occupational health and safety specifications and standards and are approved by NIOSH.

(4) Requesting Material Safety Data Sheets on all hazardous materials purchased for use by EPA employees either from Federal supply sources or private suppliers.

c. Safety and Health Services.

(1) Keeping abreast of the health and safety services and equipment available for use by EPA from other Federal sources.

(2) Assuring that an "Occupant Emergency Plan" is prepared for all EPA facilities in accordance with GSA guidelines contained in 41 CFR 101.

(3) Coordinating with GSA on a maintenance program for GSA motorpool vehicles assigned to the Agency to assure the health and safety of EPA employees utilizing the vehicles.

(4) Maintaining contact with NIOSH to obtain hazard alerts, and to keep current on the technical services, training materials, and training programs available that can be utilized by Agency employees.

5. ALLEGATIONS OF REPRISAL.

a. Employee Rights. Employees are afforded certain rights under Section 19 of the Occupational Safety and Health Act, Executive Order 12196, and 29 CFR 1960. These rights are:

(1) To report and request inspections of unsafe or unhealthful working conditions to appropriate officials (See special procedures in Chapter 4 of this Manual);

(2) Official time and reimbursement of travel and other costs incurred to participate in the Agency's occupational health and safety programs and in Field Federal Safety and Health Council activities;

(3) Access to copies of Agency standards, injury and illness statistics, and procedures;

(4) To review and comment on Agency standards, policies, and guidelines;

(5) To appeal to the Office of Federal Agency Program, OSHA on disagreements over the final disposition of reports of unsafe or unhealthful working conditions;

(6) To request anonymity when reporting unsafe or unhealthful working conditions or requesting an inspection for these conditions; and

(7) To decline to perform assigned tasks because of a reasonable belief that the task poses imminent risk of death or serious bodily harm along with a reasonable belief that there is not time to go through the normal hazard reporting and abatement procedures outlined in Chapter 4 of this Manual.

b. Agency Responsibilities. EPA must assure that no employee is subject to restraint, interference, coercion, discrimination or reprisal for filing a report of an unsafe or unhealthful working condition, or other occupational health and safety activities identified in Executive

Order 12196 and 29 CFR 1960. To assure EPA employees of their rights, the procedures outlined in Appendix 2-1 will be followed when a report of alleged restraint, interference, coercion, discrimination or reprisal is received from an employee.

6. EVALUATION OF THE AGENCY'S OCCUPATIONAL HEALTH AND SAFETY PROGRAMS.

a. General. Executive Order 12196 and 29 CFR 1960.78 requires each Agency to establish a program for evaluating the effectiveness of its own occupational health and safety programs, and to submit an annual summary of this self-evaluation activity to the Secretary of Labor. This self-evaluation program must include a qualitative assessment of the extent to which the Agency's Reporting Units have developed and implemented their occupational health and safety programs in accordance with Executive Order 12196, 29 CFR 1960, and the requirements of this Manual.

b. EPA's Evaluation Program.

(1) The Occupational Health and Safety Staff shall evaluate the occupational health and safety programs at each Agency Reporting Unit. These evaluations shall be conducted in accordance with the criteria and guidelines contained in the EPA Occupational Health and Safety Program Management Evaluation Guidelines. The evaluations shall include:

(a) A complete and extensive biennial evaluation of all elements of the Agency's occupational health and safety programs at Reporting Units where no hazardous work is performed, e.g., office occupancies.

(b) A complete and extensive annual evaluation of all elements of the Agency's occupational health and safety programs where hazardous tasks are performed, e.g., laboratories.

(2) The Occupational Health and Safety Staff shall conduct special studies and evaluations of limited areas as deemed necessary by the Director, e.g., laboratories handling toxic and/or carcinogenic substances, and hazardous waste site and spill operations.

7. FIELD FEDERAL SAFETY AND HEALTH COUNCILS (FFSHC).

a. General. Executive Order 12196 requires that the Secretary of Labor facilitate the exchange of occupational health and safety ideas and information throughout the Government. Consistent with this requirement, the Secretary of Labor sponsors existing FFSHC's and will establish new Councils as necessary.

b. Objectives of FFSHC's. The basic objectives of the FFSHC are the exchange of occupational health and safety ideas and information to reduce the incidence, severity and cost of occupational accidents, injuries, and illnesses in the Federal community. FFSHC's will act on

behalf of the Secretary of Labor in carrying out these functions in their respective geographic areas:

(1) To act as a clearinghouse for information and data on occupational accidents, injuries, and illnesses and their prevention.

(2) To plan, organize, and conduct field council meetings or programs which will give technical advice and information on occupational health and safety to participating agency representatives and employee organizations.

(3) To promote improvement of occupational health and safety programs and organizations in each Federal agency represented or participating in council activities.

(4) To promote coordination, cooperation, and sharing of resources and expertise to aid agencies with inadequate or limited resources, e.g., field councils may organize and conduct training programs for occupational health and safety program personnel, and employee representatives; coordinate and promote programs for inspections; or, on request, conduct inspections and evaluations of the agencies' health and safety programs.

(5) To provide Federal Executive Boards, Federal Executive Associations, labor union organizations and other employee representatives with information on the administrative and technical aspects of health and safety programs.

(6) To evaluate the health and safety problems peculiar to local conditions and facilitate solutions through council activities.

(7) To develop a cooperative relationship with local community leaders by informing them of the functions and objectives of the council and by asking them for support and participation in council meetings and activities.

c. Agency Participation in FFSHC.

(1) The EPA supports and encourages its employees to participate in the FFSHC meetings and programs.

(2) The Officers-in-Charge of Reporting Units, and Establishments, shall ensure that EPA is officially represented at appropriate FFSHC's in their geographical areas where they exist and are reasonably accessible.

(3) The Officers-in-Charge of Reporting Units, and Establishments, shall appoint a minimum of one management employee and one non-management employee, and alternates dependent on the size and needs of each unit, as representatives to FFSHC. These representatives shall be selected from the following employee categories:

(a) Management

1) Occupational health and safety program personnel
2) Line management officials

(b) Non-Management

1) Representatives of exclusive bargaining units
2) Other recognized employee organizations
3) Employees recommended by the occupational health and safety committee

(4) Appointments may be made to FFSHC's through a memorandum by the Officers-in-Charge of the Reporting Unit to the Chairperson of the Council. A copy of this memorandum should be sent to the Director, Occupational Health and Safety Staff (PM-273), Washington, D.C. 20460.

(5) EPA will allow participation in FFSHC during official duty hours, and the Reporting Unit, Establishment or Workplace will reimburse travel and other costs incurred to participate in these council programs and activities.

(6) The Director, Occupational Health and Safety Staff, will furnish current lists of FFSHC's to Occupational Health and Safety Designees as these lists are issued by the Department of Labor.

(7) The Occupational Health and Safety Staff will assess the adequacy of FFSHC participation during scheduled program evaluations, through field visits, and through annual narrative reports and health and safety committee minutes. The Occupational Health and Safety Staff will provide assistance and advice upon request.

8. EVALUATION OF OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE.

a. General. 29 CFR 1960.11 requires the Agency head to ensure that the performance evaluation of management officials in charge of Agency Reporting Units, supervisory employees, or other appropriate management officials, measures that employee's performance in meeting the requirements of the Agency's occupational health and safety programs, consistent with their assigned responsibilities and authority. This requirement shall take into consideraton any applicable regulations of the Office of Personnel Management or other appropriate authority.

b. EPA's Program for Evaluation of Management and Supervisory Personnel. Management and supervisory personnel will be evaluated annually on their occupational health and safety performance as a part of their annual performance evaluation. The performance standards of managers and supervisors should have performance criteria defining expected performance in providing a safe and healthful workplace for the employees under their supervision. Appendix 2-2 contains examples of occupational health and safety job performance criteria for managers and supervisors.

APPENDIX 2-A -- PROCEDURES FOR REPORTING ALLEGED RESTRAINT, INTERFERENCE, COERCION, DISCRIMINATION OR REPRISAL FOR PARTICIPATING IN THE AGENCY's OCCUPATIONAL HEALTH AND SAFETY PROGRAMS.

Any Agency employee who believes they are being subjected to restraint, interference, coercion, discrimination, or reprisal for exercising their rights under the Occupational Safety and Health Act of 1970, Executive Order 12196, 29 CFR 1960 or any of the Agency's published occupational health and safety policies and procedures should follow the outlined procedures to seek relief and a resolution of the matter.

Employee Rights. Employees are afforded these rights under Section 19, Occupational Safety and Health Act of 1970, Executive Order 12196, and 29 CFR 1960:

- To report and request inspections of unsafe or unhealthful working conditions to appropriate officials.
- Official time and reimbursement of travel and other costs incurred to participate in the Agency's occupational health and safety programs and in Field Federal Safety and Health Council activities.
- Access to copies of Agency standards, injury and illness statistics, and procedures.
- To review and comment on Agency standards, policies, and guidelines.
- To appeal to the Office of Federal Agency Programs, Occupational Safety and Health Administation, U.S. Department of Labor, on disagreements over the final disposition of reports of unsafe or unhealthful working conditions.
- To request anonymity when reporting unsafe or unhealthful working conditions or requesting an inspection for these conditions.
- To decline to perform assigned tasks because of a reasonable belief that the task poses imminent risk of death or serious bodily harm along with a reasonable belief that there is not time to go through the normal hazard reporting and abatement procedures of the Agency.

Procedures. Employees may file a report either orally or in writing using these avenues:

- A grievance through the Agency's Grievance Procedures contained in EPA Order 3110.8.

- Report any alleged violation to the Director, Occupational Health and Safety Staff. The Director shall:

  - Assure the employee anonymity if requested.

  - Investigate the allegation if within the Staff's capabilities, or

  - Refer the complaint to the Inspector General's Office for investigation.

- File a complaint with the Office of Personnel Management, Merit Systems Protection Board, under PL 95-454, Section 202, Civil Service Reform Act of 1978.

- File a complaint with the Inspector General's Office direct by calling (FTS) 382-4977 or toll free 800/424-4000, under the Inspector General Act of 1978.

The Director, Occupational Health and Safety Staff shall:

- Keep the appropriate occupational health and safety committees advised of Agency activity and determinations regarding these allegations.

- Provide appropriate occupational health and safety committees with copies of reprisal investigation findings.

- Provide the Secretary of Labor with copies of any reprisal investigation findings.

- Provide the exclusive bargaining representative with a copy of the investigation findings.

- Provide the employee with a copy of the investigation findings.

APPENDIX 2-B -- EXAMPLES OF JOB PERFORMANCE STANDARDS

Applicability: Assistant Administrators, Regional Administrators, Office of General Counsel, Inspector General, Associate Administrators, Heads of Offices (Headquarters)

These officials must assure:

1. That funds are available for necessary health and safety equipment, materials, training, and medical monitoring.

2. That qualified, competent personnel are appointed to manage the occupational health and safety program in their area of jursidiction.

3. That a person is appointed to represent them in the resolution of conflicts that may exist between EPA and GSA and other Federal agencies regarding Federal buildings, leased space, products purchased or supplied.

4. That no EPA employee under their area of jurisdiction is subject to restraint, interference, coercion, discrimination or reprisal for filing a report of unsafe and unhealthful working conditions or for other participation in the Agency's occupational health and safety activities.

5. That employees are aware of the Agency's occupational health and safety programs through dissemination of information on Agency standards, programs, employee rights and responsibilities, and the Agency's procedures for responding to reports of unsafe or unhealthful working conditions.

6. That active participation in Field Federal Safety and Health Councils is supported to facilitate the exchange of ideas and information about occupational health and safety with other Federal agencies.

7. That the program in their area of jurisdiction is evaluated to determine its effectiveness.

8. That the performance evaluations of supervisors and managers under their area of jurisdiction measures their performance in meeting the requirements of the Agency's occupational health and safety programs, consistent with their assigned responsibilities and authority.

Critical Job Element

(The criteria for health and safety performance may be placed under the Critical job element which covers the use and development of personnel

Objective:

Effectively manage the personnel and financial resources of the program/region.

Performance Criteria:

Outstanding: Evaluation of the occupational health and safety program management strongly supports the firm and clear written and oral implementation of the Agency's occupational health and safety programs to protect employees and that this expectation is included in all successive performance standards of managers and supervisors under their direction.

Satisfactory: Evaluation of the occupational health and safety program management has clearly established, through successive performance standards and by written and oral examples, the support and implementation of the Agency's occupational health and safety programs and the awareness that supervisors are responsible for the health and safety of employees under their direction.

Unsatisfactory: Evaluation of the occupational health and safety program management establishes that the first level supervisors are unsure as to the relative importance of employee health and safety in conducting program/regional operations or do not feel responsible for the employees under their jurisdiction.

Applicability: Supervisors

Supervisors must assure:

1. That employees under their supervision are provided the necessary health and safety equipment, materials, training, and medical monitoring applicable to the jobs they perform.

2. That employees under their supervision are aware of their rights and that they are not subject to restraint, interference, coercion, discrimination or reprisal for filing a report of unsafe or unhealthful working conditions or of other participation in the Agency's occupational health and safety programs.

3. That employees under their supervision are aware of the Agency's occupational health and safety programs, standards, guidelines, and procedures how to report unsafe or unhealthful conditions and that they fully understand their occupational health and safety responsibilities and that failure to assume these responsibilities may be cause for disciplinary action.

Critical Job Element

(The criteria for health and safety performance may be placed under the critical job element which covers the use and development of personnel and other resources or any other compatible critical job element.)

Objective:

To assure that all employees under their supervision comply with all occupational health and safety standards, rules, regulations, and orders issued by the Agency.

Performance Criteria:

Outstanding: Occupational health and safety program evaluation shows clearly that the supervisor understands his/her responsibility for the health and safety of employees under his/her supervision by surveying the needs of employees for training, medical monitoring, materials, and personal protection equipment and provides the necessary items to the employees applicable to the jobs they perform. Supervisor strongly supports and enforces safe work practices and initiates disciplinary actions if needed.

Satisfactory: Occupational health and safety program evaluation shows that the supervisor understands responsibility for the health and safety of employees under his/her supervision and has provided the minimum training, medical monitoring, materials, and personal protective equipment applicable to the jobs they perform and enforces these requirements through initiating disciplinary actions if needed.

Unsatisfactory: The supervisor is unsure of his/her occupational health and safety responsibility and that he/he is responsible for the health and safety of the employees he/she supervises. The minimum health and safety training, medical monitoring, materials, and protective equipment are not provided nor is safe work practices enforced.

NOTE: These examples are not intended as mandatory wording. They are only examples. Each Reporting Unit, Establishment and Workplace may develop occupational health and safety performance standards consistent with their needs.

CHAPTER 3 - ACCIDENT AND ILLNESS INVESTIGATION, REPORTING AND RECORDKEEPING REQUIREMENTS

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CHAPTER 3 - ACCIDENT AND ILLNESS INVESTIGATION AND REPORTING AND RECORDKEEPING REQUIREMENTS

1. GENERAL. Section 24 of the Occupational Safety and Health Act of 1970, and Section 1-201(j) of Executive Order 12196 require EPA to establish and maintain an effective occupational health and safety management information system. Regulations for the program are contained in 29 CFR 1960, Subpart I. The purpose of this Chapter is to establish uniform requirements for collecting and compiling occupational health and safety accident and illness data for the Agency's Management Information System. This information will be used by the Agency to (a) identify unsafe and unhealthful working conditions, and (b) to establish occupational health and safety program priorities. Additionally, since comprehensive accident and illness investigations and analyses are necessary to an effective management information system, procedures and policies for their implementation are also included.

2. IDENTIFICATION OF REPORTING UNITS. EPA is required to provide to the Department of Labor the names and addresses of each of the Reporting Units covered by its occupational health and safety records program. Appendix 3-A lists EPA's Reporting Units and their sub-units.

3. ACCIDENT AND ILLNESS INVESTIGATION. The investigation of an accident or illness is necessary to prevent similar occurrences. Investigation should not attempt to prove guilt or innocence. Rather its purpose should be to ascertain the existence of hazards by identifying the elements and sources which caused the accident or illness. Additionally, proper investigation should result in the identification of any corrective measures which may be required.

All information or evidence uncovered during an accident or illness investigation that would be of benefit to EPA in developing a new occupational health and safety standard or in modifying an existing standard must be reported promptlyu to the Headquarters Occupational Health and Safety Staff. While all accidents and illnesses are to be investigated, including accidents involving only property damage, the scope of the investigation depends on the seriousness of the accident.

a. Objectives of an Accident or Illness Investigation. The objectives of an accident or illness investigation are to:

(1) Determine the existence of any hazards or contributing factors involved, and make recommendations for eliminating the hazards.

(2) Determine if any unsafe or unhealthful behavior or condition was involved, and make recommendations for eliminating the unsafe or unhealthful condition or behavior involved.

b. Determination of Accident or Illness Causes. The cause of an accident or illness is any behavior, condition, act, or negligence without which the accident or illness would not have happened. One of the primary reasons for accident or illness investigation is to determine the causal factors involved so corrective actions can be initiated.

The cause of an accident or illness is normally a combination of simultaneous or sequential circumstances without any of which the accident or illness could not have happened.

The investigator should look for and identify correctly all accident and illness causes to ensure better analysis and provide the basis for realistic corrective action.

c. Responsibilities for an Accident or Illness Investigation. Accident or illness investigations require a search for all factors involved in the accident or illness. Every factor must be found, evaluated and considered in order to determine what actually occurred and why. Failure to gather and consider all factors could allow recurrent accidents or illnesses from the same cause.

(1) Supervisor. When the supervisor is advised that an accident or illness has occurred, he/she should:

(a) Investigate promptly.

(b) Determine what happened and how it happened.

(c) Determine the results.

(d) Determine what immediate corrective action to take.

(e) Notify the Occupational Health and Safety Designee and request assistance from the Designee and others if needed.

(2) Occupational Health and Safety Designee. When the Designee is advised that an accident or illness has occurred, he/she should:

(a) Conduct an investigation promptly.

(b) Collect and weigh all facts, and justify the conclusions reached by the evidence.

(c) Determine familiarity by the employee with equipment and procedures involved.

(d) Determine the conditions or situations relative to the cause of the accident or illness.

(e) Determine if the accident or illness was caused by a physical hazard or by an unsafe act.

(f) Assign one or more persons to investigate major lost time accidents or illnesses.

(g) Be objective and independent from the individuals or programs involved in the accident or illness.

d. Procedures for Conducting an Investigation. The Occupational Health and Safety Designee should follow these procedures in all accident and, in most cases, illness investigations:

(1) Arrive at the scene promptly and obtain facts quickly and accurately.

(2) Promptly assess existing hazards to others at the scene and, as appropriate, evacuate the area and/or seek professional assistance to secure the premises from further such occurrences.

(3) Evidence at the scene of an accident must be preserved until the investigation is completed, except to the extent necessary to protect employees and the public.

(4) Get statements from all witnesses.

(5) Interview the injured person(s) as soon as possible.

(6) Obtain physical evidence. Get measurements and photograph the scene.

(7) Record all evidence relating to the accident or illness.

(8) Recommend hazard elimination, change in standard operating procedures, or training revision.

Appendix 3-B is a detailed outline of accident or illness investigation procedures.

e. Distribution of Investigation Reports. Copies of accident or illness investigation reports shall be distributed as follows:

(1) The supervisor shall:

(a) Provide a copy of his/her investigation to the local Occupational Health and Safety Designee.

(b) Provide a copy to the employee(s) involved.

(c) Keep a copy for his/her file.

(2) The Occupational Health and Safety Designee shall:

(a) Provide a copy to the Officer-in-Charge of the Reporting Unit.

(b) Provide a copy to the Headquarters Occupational Health and Safety Staff.

(c) Provide a copy to the local occupational health and safety committee.

(d) Provide a copy to the exclusive employee representative, if appropriate and requested.

(e) Keep a copy for his/her file.

Investigation reports shall be made available to the Secretary of Labor or his/her authorized representative on request.

4. ACCIDENT AND ILLNESS RECORDING AND REPORTING. The accurate and complete recording and reporting of accidents and illnesses are essential to effective investigations.

The reasons for recording and reporting accidents and illnesses are to notify management that a mishap has occurred; to record essential information that will help identify causes, point to corrective action, indicate trends, and provide a basis for future occupational health and safety program planning; and to permit an evaluation of the progress being made in the prevention of accidents and illnesses.

a. Reporting Forms. The following forms are used by EPA for maintaining occupational health and safety accident and illness records and for preparing Agency reports and reports required by the Department of Labor.

(1) EPA Form 1440-9, "Supervisor's Report of Accident/Illness" (See Appendix 3-C). This is the basic document for reporting all job-related accidents and illnesses.

(2) OSHA Form 100-F, "Log of Federal Occupational Injuries and Illnesses" (See Appendix 3-D). This is the basic document used for compiling data under the Occupational Health and Safety Act.

(3) OSHA Form 102-F, "Annual Summary of Federal Occupational Injuries and Illnesses" (See Appendix 3-F). This form is to be used for annual report submissions by EPA Reporting Units to Headquarters. (The Headquarters Occupational Health and Safety Staff will prepare and submit

an annual summary for the Agency to the Department of Labor.) A copy of each Reporting unit's report should be posted at its headquarters and all sub-units covered by the report for 30 days no later than 45 days after the beginning of the Calendar Year.

b. Reporting Requirements. EPA requires that employees report all job-connected accidents and illnesses to their supervisor. A job-connected accident or illness is any incident involving Agency personnel, property, or operations which results in personal injury or illness, vehicle collision, fire, a potential claim against the Government, or property damage of $100.00 or more, or any incident having the potential to cause death, serious injury or illness.

(1) Reporting Procedures. Procedures for the reporting and distribution of information on accident or illness incidents by the employee, the supervisor, the Personnel Office and the Reporting Unit Occupational Health and Safety Designee follow:

(a) The employee shall:

1 Report immediately any job-connected incidents to his/her supervisor.

2 Furnish accurate and sufficient information regarding the circumstances of the incident to enable the supervisor to complete EPA Form 1440-9.

3 Complete CA-1, if an occupational injury is involved.

4 Complete CA-2, if an occupational illness is involved.

(b) The supervisor shall:

1 Investigate all job-connected incidents within two working days and complete EPA Form 1440-9, Supervisor's Report of Accident/Illness.

2 Distribute copies of EPA Form 1440-9 as follows:

a Original (white) to EPA, Occupational Health and Safety Staff (PM-273), Washington, D. C. 20460.

b Furnish the employee a copy (goldenrod).

c Retain a copy (pink) for his/her file.

d Furnish the Personnel Office or Employee Compensation Coordinator with a copy (green) along with the original CA-1 or CA-2 if an occupational injury or illness is involved.

e Furnish a copy (canary) to the local Occupational Health and Safety Designee along with a copy of the CA-1 or CA-2 if an occupational injury or illness is involved.

(c) The Personnel Office or Workers' Compensation Coordinator shall:

1 Review the EPA Form 1440-9 and CA-1 or CA-2 if an occupational injury or illness is involved.

2 Contact the employee and explain his/her rights and benefits under the Federal Employees Compensation Act.

3 If an OSHA recordable injury or illness is involved, forward the original CA-1 or CA-2 to the Office of Workers' Compensation, U.S. Department of Labor, and file a copy in the employee's official personnel file, or

4 If no OSHA recordable injury or illness is involved, file the original CA-1 or CA-2 in the employee's official personnel file.

(d) The Occupational Health and Safety Designee shall:

1 Assign a control number for the case.

2 Prepare a file.

3 Enter information regarding the indicent on the Reporting Unit log (a separate OSHA Form 100-F may be used). See Appendix 3-E.

4 If the incident is recordable under OSHA cirteria enter the information on the OSHA Form 100-F log. See Appendix 3-D.

5 Proceed with the investigation of the incident within five working days of receipt of EPA Form 1440-9 for routine incidents and on receipt of verbal, telephone, or written information pertaining to the reporting of a serious incident as defined in the following section.

6 Document the findings and distribute copies as follows:

a Original to the EPA, Occupational Health and Safety Staff, (PM-273), Washington, D. C. 20460.

b Copy to the Officer-in-Charge of the Reporting Unit, and Establishment or Workplace if these sub-units are involved.

c Copy to the Chairperson, Occupational Health and Safety Committee.

d Copy to the exclusive representative, if appropriate and requested.

e Retain a copy for his/her official file.

(2) Reporting of Serious Incidents. The supervisor and/or local Occupational Health and Safety Designee must report serious incidents to the Headquarters Occupational Health and Safety Staff by telephone or facsimile copy within 48 hours of occurrence. A serious incident involves:

(a) An accident or illness resulting in death.

(b) A disabling injury involving the loss of use of a principal part of the body or total disability.

(c) A single incident which requires the hospitalization of five or more employees, regardless of cause or severity;

(d) An incident stemming from EPA operations involving non-EPA personnel which requires hospitalization of five or more persons or results in a fatality;

(e) Damage which exceeds $10,000.00 to EPA leased or owned roperty or to non-EPA property arising from EPA operations.

(f) Reports of incidents which require immediate reporting must contain:

1 Name(s) of person(s) involved.

2 Date and time of incident.

3 Apparent cause of the incident.

4 Location and brief circumstances.

5 Name(s) and address(es) of the next of kin if a fatality is involved.

6 Type and extent of property damage.

7 Present status (what has been and what remains to be done).

8 Personal contacts and telephone numbers for additional information.

c. Record or Log of Federal Occupational Injuries and Illnesses. A requires that a record or log of OSHA recordable occupational injuries

and illnesses must be maintained at each Reporting Unit identified by the Agency in Appendix 3-A. An OSHA recordable occupational injury or illness involves:

(1) All work-related injuries and illnesses that result in death regardless of the time between injury and death or the length of the illness.

(2) An injury or illness which results in one or more of the following:

(a) Loss of consciousness,

(b) Restriction of work or motion,

(c) Transfer to another job,

(d) Days away from work,

(e) Restricted work activity, or

(f) Medical treatment beyond First Aid.

Appendix 3-G is a Flow Chart Depecting OSHA accident/illness recording criteria.

d. Related Reports. In addition to the submission of EPA Form 1440-9, the supervisor is responsible for other reports required under regulations. These include:

(1) State and local police reports regarding motor vehicle accidents;

(2) SF-91, Report of Motor Vehicle Accident;

(3) SF-91, Investigation Report of Motor Vehicle Accident;

(4) Coast Guard Form CG-3865, Boating Accident Report; and

(5) NTSB Form 6120.1, Pilot-Operator Aircraft Accident Report.

5. AGENCY ANNUAL REPORTS. EPA requires two annual reports on a Calendar Year basis. These reports are:

a. Annual Summary of Federal Occupational Injuries and Illnesses.

(1) Each EPA Reporting Unit shall compile an annual summary of the occupational injuries and illnesses that have occurred at its headquarters and all of its sub-units during the past Calendar Year.

(2) The summary shall be based on the OSHA recordable record or log of occupational injuries and illnesses. The Headquarters Occupational Health and Safety Staff will provide Reporting Units with copies of OSHA Form 102-F for this purpose.

(3) Each Reporting Unit shall post a copy of their annual summary report for 30 days not later than 45 calendar days after the close of the Calendar Year at its headquarters and at each of its sub-units.

(4) The Headquarters Occupational Health and Safety Staff shall consolidate annual summaries from EPA Reporting Units and furnish the Department of Labor with a consolidated report to meet its reporting deadline after the close of the Calendar Year. Copies of this consolidated report will be furnished to all Reporting Units.

b. Annual Narrative Report.

(1) Each EPA Reporting Unit shall be required to submit a narrative report describing its occupational health and safety program for the previous Calendar Year by February 15 of each year.

(2) The Headquarters Occupational Health and Safety Staff shall furnish guidelines for this report to each Reporting Unit based on Department of Labor requirements.

(3) The Headquarters Occupational Health and Safety Staff will providse a consolidated Agency annual narrative report to the Department of Labor by April 1st of each year. The consolidated report shall include a summary of the Agency's evaluation of its occupational health and safety programs. Each Reporting Unit will be furnished a copy of this report.

6. ACCESS TO RECORDS BY THE SECRETARY OF LABOR. The records generated by the requirements of this Chapter shall be available and accessible to the Secretary of Labor or his/her authorized representative(s).

7. UTILIZATION AND LOCATION OF RECORDS AND REPORTS. Occupational injury and illness information must be made available to employees and their representatives with the basic information necessary to assure they can actively participate in EPA's safety and health programs. Occupational health and safety inspectors also must have access to accident and illness records to better carry out their duties.

The official records may be maintained at the Reporting Unit headquarters. Copies of the reports generated by these records must be provided to the Establishment(s) and Workplace(s) under administrative control of the Reporting Unit.

8. RETENTION OF RECORDS. The records and reports required to be maintained under the provisions of this Chapter shall be retained by each Reporting Unit for five years following the end of the Calendar Year to which they relate. These records may be stored at a Federal Records Retention Center which has reasonable access. Records required by Agency and OSHA standards shall be retained in accordance with those standards.

9. INCIDENCE AND SEVERITY RATES, AND COST OF ACCIDENTS AND ILLNESSES. The determination of the incidence rate, number of lost work days, and the cost of accidents and illnesses should be periodically made. These data should be provided to Agency managers and supervisors to keep them informed of the progress or problems of the program. The Director, Occupational Health and Safety Staff, will provide an annual report to each Reporting Unit on their incidence and severity rates.

a. Incidence and Severity Rates. The incidence rate is the number of injuries and illnesses or lost work days per 100 full-time employees.

Incidence rates are calculated as follows:

$$\frac{\text{Number of recordable injuries/illnesses} \times 200{,}000}{\text{Total employee hours worked (during a month, a quarter or a Calendar Year)}}$$

The lost work day rates or severity rates are calculated as follows:

$$\frac{\text{Number of lost work days} \times 200{,}000}{\text{Total employee hours worked}}$$

b. Accident/Illness Cost Data. The indirect cost of injuries and illnesses is a matter of concern and is a strong argument for maintaining safe and healthful conditions and work practices. A conservative estimate of indirect costs over direct costs is 4 to 1.

(1) The factors involved in direct costs are:

(a) Reimbursement of medical benefits to the Department of Labor.

(b) Reimbursement of compensation benefits to the Department of Labor.

(c) Payment of costs to the Department of Labor for the administrative costs of the program.

(2) The factors involved in indirect costs are:

(a) Continuation of pay for the injured employee.

(b) Time lost from work by the injured employee.

(c) Time lost by fellow workers:

1 Time lost by the supervisor during the investigation and reporting.

2 Time lost by other employees providing statements to investigators and observing the incidents.

3 Time lost by management and clerical personnel while providing assistance in the investigating and reporting period.

(d) Cost of repairing damage to equipment and/or facilities.

(e) Cost of training a substitute or new employee.

(f) Economic loss to employee's family.

(g) Cost of damage to non-government property.

Although these indirect costs are real, they are difficult to demonstrate to management as being a part of the overall costs of an accident or illness. However, management should be apprised of these factors that affect the overall costs of accidents and illnesses.

APPENDIX 3-A - ORTING UNITS

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
I. REGIONAL ORGANIZATION			
o Regional Office Region 1 JFK Federal Bldg. Boston, MA 02203	o Regional Administrator Region 1	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
oo Regional Laboratory Region 1 60 Westview St. Lexington, MA 02173	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
o Regional Office Region 2 26 Federal Plaza New York, NY 10007	o Regional Administrator Region 2	"	Occupational Health & Safety Designee - Reporting Unit
oo Regional Laboratory Region 2 Woodbridge Ave. Edison, NJ 08837	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
ooo Environmental Response Team Woodbridge Ave. Edison, NJ 08837	ooo Chief, Environmental Response Section	"	Occupational Health & Safety Designee - Workplace
ooo Oil & Haz. Materials Spill Branch Woodbridge Ave. Edison, NJ 08837	ooo Chief, Oil & Haz. Materials Spill Branch	"	"
ooo Storm/Combined Sewer Section Woodbridge Ave. Edison, NJ 08837	ooo Chief, Storm & Combined Sewer Section	"	"

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
oo San Juan Field Office	oo Director, San Juan	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Establishment
o Regional Office Region 3 Curtis Bldg., 6th & Walnut Philadelphia, PA 19106	o Regional Administrator Region 3	"	Occupational Health & Safety Designee - Reporting Unit
oo Annapolis Field Office 839 Bestgate Rd. Annapolis, MD 21401	oo Director, Annapolis Field Office	"	Occupational Health & Safety Designee - Establishment
oo Wheeling Field Office 303 Methodist Bldg. Wheeling, WV 26003	oo Director, Wheeling Field Office	"	Occupational Health & Safety Designee - Establishment
o Regional Office Region 4 345 Courtland St., NE Atlanta, GA 30308	o Regional Administrator Region 4	"	Occupational Health & Safety Designee - Reporting Unit
o Regional Office Region 5 230 S. Dearborn St. Chicago, IL 60604	o Regional Administrator Region 5	"	Occupational Health & Safety Designee - Reporting Unit
oo Regional Laboratory Region 5 536 S. Clark St. Chicago, IL 60609	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
o Eastern District Office 25089 Center Ridge Rd. West Lake, OH 44145	oo Director, Eastern District Office	"	Occupational Health & Safety Designee - Establishment

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
o Regional Office Region 6 1201 Elm St. Dallas, TX 75270	o Regional Administrator Region 6	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
oo Houston Branch Environmental Services Div. 6608 Hornwood Dr. Houston, TX 77074	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
o Regional Office Region 7 726 Minnesota Ave. Kansas City, KS 66101	o Regional Administrator Region 7	"	Occupational Health & Safety Designee - Reporting Unit
oo Regional Laboratory Region 7 25 Funston Rd. Kansas City, KS 66115	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
o Regional Office Region 8 One Denver Place 999 18th St. Denver, CO 80202-2413	o Regional Administrator Region 8	"	Occupational Health & Safety Designee - Reporting Unit
oo Technical Investigations Br. Bldg. 53, DFC Denver, CO 80225	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
oo Montana Operations Office Helena, MT	oo Chief, Montana Operations Office	"	"
o Regional Office Region 9 215 Fremont St. San Francisco, CA 94105	o Regional Administrator Region 9	"	Occupational Health & Safety Designee - Reporting Unit

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
o Regional Office Region 10 1200 6th Ave. Seattle, WA 98101	o Regional Administrator Region 10	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
oo Regional Laboratory Region 10 P. O. Box 549 Manchester, WA 98353	oo Director, Environmental Services Division	"	Occupational Health & Safety Designee - Establishment
oo Oregon Operations Office 533 S. W. Fifth Ave. Yeon Bldg., 2nd Floor Portland, OR 97204	oo Director, Oregon Operations Office	"	"
oo Idaho Operations Office 422 West Washington St. Boise, ID 83702	oo Director, Idaho Operations Office	"	"
oo Washington Operations Office 13400 Northrup Way, Suite 3 Bellevue, WA 98004	oo Director, Washington Operations Office	"	"
oo Alaska Operations Office Room #535, Federal Bldg. 701 C St. Anchorage, AL 99513	oo Director, Alaska Operations Office	"	"

II. HEADQUARTERS ORGANIZATION

o Headquarters Complex (Includes Waterside and Crystal Malls and the Marfair Bldg.) 401 M St., SW Washington, DC 20460		Occupational Health & Safety Manager - Reporting Unit	

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
oo Office of the Administrator 401 M Street, SW Washington, D.C. 20460		Occupational Health & Safety Manager-Reporting Unit	Occupational Health & Safety Designee-Establishment
ooo Associate Administrator for International Activities 401 M Street, SW Washington, D.C. 20460	ooo Associate Administrator for International Activities	"	Occupational Health & Safety Designee-Workplace
ooo Associate Administrator for Regional Operations 401 M Street, SW Washington, D.C. 20460	ooo Associate Administrator for Regional Operations	"	"
oo Assistant Administrator for Administration & Resources Mgmt. 401 M Street, SW Washington, D.C. 20460	oo Assistant Administrator for Administration & Resources Management	Occupational Health & Safety Manager-Reporting Unit	Occupational Health & Safety Designee-Establishment
ooo Office of Administration 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Administration	"	Occupational Health & Safety Designee-Workplace
ooo Office of Comptroller 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Comptroller	"	"
ooo Office of Information Resources Management 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Information Resources Mgmt.	"	"
ooo Office of Human Resources Mgmt. 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Human Resources Mgmt.	"	"

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
oo Office of Asst. Administrator for Enforcement & Compliance Monitoring 401 M Street, SW Washington, D.C. 20460	oo Assistant Administrator for Enforcement and Compliance Monitoring	Occupational Health and Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Establishment
oo Office of General Counsel 401 M St., SW Washington, DC 20460	oo Director, Office of General Counsel	"	"
oo Office of Asst Administrator for Policy, Planning, & Evaluation 401 M St., SW Washington, DC 20460	oo Assistant Administrator for Policy, Planning, & Evaluation	"	"
ooo Office of Policy Analysis 401 M St., SW Washington, DC 20460	ooo Director, Office of Policy Analysis	"	Occupational Health & Safety Designee - Workplace
ooo Office of Standards and Regulations 401 M St., SW Washington, DC 20460	ooo Director, Office of Standards and Regulations	"	"
ooo Office of Management Systems and Evaluation 401 M St., SW Washington, DC 20460	ooo Director, Office of Management Systems & Evaluation	"	"
oo Office of Asst Administrator for External Affairs 401 M St., SW Washington, DC 20460	oo Assistant Administrator for External Affairs	"	Occupational Health & Safety Designee - Establishment

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
ooo Office of Private and Public Sector Liaison 401 M St., SW Washington, DC 20460	ooo Director, Office of Private and Public Sector Liaison	"	Occupational Health & Safety Designee - Workplace
ooo Office of Congressional Liaison 401 M St., SW Washington, DC 20460	ooo Director, Office of Congressional Liaison	"	"
ooo Office of Federal Activities 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Federal Activities	Occupational Health & Safety Manager-Reporting Unit	Occupational Health & Safety Designee - Workplace
oo Office of Inspector General 401 M Street, SW Washington, D.C. 20460	oo Director, Office of Inspector General	"	Occupational Health & Safety Designee - Establishment
ooo Office of Audit 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Audit	"	Occupational Health & Safety Designee - Workplace
ooo Office of Investigations 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Investigations	"	"
ooo Office of Management and Technical Assessment 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Management and Technical Assessment	"	"
oo Office of Asst Administrator for Water 401 M Street, SW Washington, D.C. 20460	oo Director, Office of Assistant Adminstrator	"	Occupational Health & Safety Designee - Establishment

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
ooo Office of Water Enforcement & Permits 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Water Enforcement & Permits	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Workplace
ooo Office of Water Regulations and Standards 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Water Regulations & Standards	"	"
ooo Office of Marine and Estuarine Protection 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Marine and Estuarine Protection	"	"
ooo Office of Marine and Estuarine Protection 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Marine and Estuarine Protection	"	"
ooo Office of Municipal Pollution Control 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Municipal Pollution Control	"	"
ooo Office of Groundwater Pollution 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Groundwater Pollution	"	"
ooo Office of Drinking Water 401 M Street, SW Washington, D.C. 20460	ooo Director, Office of Drinking Water	"	"

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
oo Office of Asst Administrator for Solid Waste and Emergency Response 401 M St., SW Washington, DC 20460	oo Asst Administrator for OSWER	Occupational Health & Safety Manager - Reporting Unit	Occupational Health and Safety Designee - Workplace
ooo Office of Waste Programs Enforcement 401 M St., SW Washington, DC 20460	ooo Director, Office of Waste Programs Enforcement	"	Occupational Health and Safety Designee - Establishment
ooo Office of Solid Waste 401 M St., SW Washington, DC 20460	ooo Director, Office of Solid Waste	"	Occupational Health and Safety Designee - Workplace
ooo Office of Emergency and Remedial Response 401 M St., SW Washington, DC 20460	ooo Director, Office of Emergency and Remedial Response	"	"
ooo Office of Underground Storage Tanks 401 M St., SW Washington, DC 20460	ooo Director, Office of Underground Storage Tanks	"	"
oo Office of Asst Administrator for Air and Radiation 401 M St., SW Washington, DC 20460	oo Asst Administrator for Air and Radiation	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Establishment
ooo Office of Air Quality Planning and Standards 401 M St., SW Washington, DC 20460	ooo Director, Office of Air Quality Planning and Standards	"	Occupational Health & Safety Designee - Workplace

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
ooo Office of Mobile Sources 401 M St., SW Washington, DC 20460	ooo Director, Office of Mobile Sources	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Workplace
ooo Office of Radiation Programs 401 M St., SW Washington, DC 20460	ooo Director, Office of Radiation Programs	"	"
oo Office of Asst Administrator for Pesticides & Toxic Substances 401 M St., SW Washington, DC 20460	oo Assistant Administrator for OPTS	"	Occupational Health & Safety Designee - Establishment
ooo Office of Pesticide Programs 401 M St., SW Washington, DC 20460	ooo Director, Office of Pesticide Programs	"	Occupational Health & Safety Designee - Workplace
ooo Office of Toxic Substances 401 M St., SW Washington, DC 20460	ooo Director, Office of Toxic Substances	"	"
ooo Office of Compliance Monitoring 401 M St., SW Washington, DC 20460	ooo Director, Office of Compliance Monitoring	"	"
oo Office of Asst Administrator for Research and Development 401 M St., SW Washington, DC 20460	oo Assistant Administrator for Research and Development	"	Occupational Health & Safety Designee - Establishment
ooo Office of Acid Deposition, Environmental Monitoring & Quality Assurance 401 M St., SW Washington, DC 20460	ooo Director, Office of Acid Deposition, Environmental Monitoring & Quality Assurance	"	Occupational Health & Safety Designee - Workplace

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
ooo Office of Environmental Engineering and Technology 401 M St., SW Washington, DC 20460	ooo Director, Office of Env. Engineering & Technology	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Workplace
ooo Office of Environmental Processes & Effects Research 401 M St., SW Washington, DC 20460	ooo Director, Office of Env. Processes & Effects Research	"	"
ooo Office of Health Research 401 M St., SW Washington, DC 20460	ooo Director, Office of Health Research	"	"
o Chemical & Biological Investigations Branch Bldg. 402, ARC East Beltsville, MD 20705	o Chief, Chemical & Biological Investigations Branch	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
oo Northwest Biological Investigations Station 3320 Orchard Ave. Corvallis, OR 97330	oo Chief, Northwest Biological Investigations Station	"	Occupational Health & Safety Designee - Establishment
o Toxicant Analysis Center NSTL, Bldg. 1105 Bay St. Louis, MS 39529	o Chief, Toxicant Analysis Center	"	Occupational Health & Safety Designee - Reporting Unit
o Environmental Research Center 26 W. St. Clair St. Cincinnati, OH 45268	o Senior Official Research and Development	Occupational Health & Safety Manager - Reporting Unit	"
oo Office of Administration 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, Office of Administration	"	Occupational Health & Safety Designee - Establishment

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
oo Environmental Monitoring & Support Lab-Cinn. 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, EMSL-Cinn.	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Establishment
oo Center for Environmental Research Information 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, CERI-Cinn.	"	"
oo Environmental Criteria & Assessment Office 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, ECAO-Cinn.	"	"
oo Industrial Environmental Research Lab-Cinn. 5555 Ridge Ave. Cincinnati, OH 45268	oo Director, IERL-Cinn.	"	"
oo Municipal Environmental Research Lab-Cinn. 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, MERL-Cinn.	"	"
oo Health Effects Research Laboratory-Cinn. 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, HERL-Cinn.	"	"
oo National Training & Operational Technology Center 26 W. St. Clair St. Cincinnati, OH 45268	oo Director, NTOTC	"	"

o Reporting unit oo Establishment ooo Workplace	*Officer-in-Charge of:* o Reporting Unit oo Establishment ooo Workplace	*Occupational* Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
oo Technical Support Division 5555 Ridge Ave. Cincinnati, OH 45268	oo Director, Technical Support Division	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Designee - Establishment
o Environmental Research Lab Research Triangle Park, NC 27711	o Senior Official Research and Development	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Establishment
oo Office of Administration and Resources Management Research Triangle Park, NC 27711	oo Director, Office of Administration and Resources Management	"	"
oo Environmental Monitoring and Systems Lab-RTP Research Triangle Park, NC 27711	oo Director, EMSL-RTP	"	"
oo Health Effects Research Laboratory-RTP Research Triangle Park, NC 27711	oo Director, HERL-RTP	"	"
oo Atmospheric Sciences Research Laboratory-RTP Research Triangle Park, NC 27711	oo Director, ASRL-RTP	"	"
oo Air and Energy Research Lab Research Triangle Park, NC 27711	oo Director, AERL-RTP	"	"
oo Deputy Assistant Administrator for Air Quality Planning & Standards-RTP Durham, NC 27711	oo Deputy Assistant Administrator for Air Quality Planning & Standards-RTP Durham, NC 27711	"	"

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
o Environmental Monitoring Systems Laboratory-Las Vegas P. O. Box 15027 Las Vegas, NV 89114	o Director, EMSL-Las Vegas	Occupational Health & Safety Director - Reporting Unit	Occupational Health & Safety Designee - Establishment
oo Vint Hill Farms Station EPIC P. O. box 1587 Warrenton, VA 22186	oo Chief, Vint Hill Farms Station-EPIC	"	"
ooo Office of Radiation Programs P. O. Box 18416 Las Vegas, NV 89114	ooo Director, ORP	"	Occupational Health & Safety Designee - Workplace
ooo EPA Financial Management Division-Las Vegas Accounting Operations Office P. O. Box 18418 Las Vegas, NV 89114	ooo Financial Management Officer	"	"
ooo Office of Civil Rights Area Office of Civil Rights P. O. Box 15037 Las Vegas, NV 89114	ooo Area Director	"	"
ooo Personnel Management Office-Las Vegas P. O. Box 18417 Las Vegas, NV 89114	ooo Director of Personnel Management	"	"
ooo Region 9 Laboratory P. O. Box 15027 Las Vegas, NV 89114	ooo Senior Chemist	"	"

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
o Environmental Research Lab Sabine Island Gulf Breeze, FL 32561	o Director, Environmental Research Laboratory	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
o Robert S. Kerr Environmental Research Laboratory P. O. Box 1198 Ada, OK 74820	o Director, RSKERL	"	"
oo Ada Branch, ES Division Region 6, P. O. Box 1198 Ada, OK 74820	oo Chief, Ada Branch, ES Division	"	Occupational Health & Safety Designee - Establishment
o Environmental Research Lab College Station Rd. Athens, GA 30613	o Director, ERL	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Manager - Reporting Unit
oo Region 4, ES Division College Station Rd. Athens, GA 30613	o Director, ESD	"	"
o Environmental Research Lab 6201 Congdon Blvd. Duluth, MN 30605	o Director, ERL	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
oo Large Lakes Research Station P. O. Box 500 Grosse Ile, MI 48138	oo Director, Large Lakes Research Station	"	"
oo Ecological Research Station P. O. 500 Monticello, MN 55362	oo Director, Ecological Research Station	"	"
oo Newton Fish Toxicology Station 3411 Church St. Cincinnati, OH 45268	oo Director, Newton Fish Toxicology Station	"	"

o Reporting Unit oo Establishment ooo Workplace	Officer-in-Charge of: o Reporting Unit oo Establishment ooo Workplace	Occupational Health & Safety Program Management Responsibility	Facility Occupational Health & Safety Responsibility
o Environmental Research Lab South Ferry Rd. Narragansett, RI 02882	o Director, Environmental Research Lab	Occupational Health & Safety Designee - Reporting Unit	Occupational Health & Safety Designee - Reporting Unit
oo CERL Marine Division Marine Sciences Center Newport, OR 97365	oo Director, CERL Marine Division	"	"
o Environmental Research Lab 200 S.W. 35th St. Corvallis, OR 97330	o Director, Environmental Research Lab	"	"
oo Western Fish Toxicology Lab 1350 S.E. Goodnight Ave. Corvallis, OR 97330	oo Chief, CERL Freshwater Tox. Br.	"	Occupational Health & Safety Designee - Establishment
o National Enforcement Investigation Center Bldg. 53, Box 25227 Denver, CO 80225	o Director, NEIC	NEIC Occupational Health & Safety Designee - Reporting Unit	NEIC Occupational Health & Safety Designee - Reporting Unit
o Motor Vehicle Emissions Laboratory Facility 2565 Plymouth Rd. Ann Arbor, MI 48105	o Chief, Administrative Section	Occupational Health & Safety Manager - Reporting Unit	Occupational Health & Safety Manager - Reporting Unit
o Eastern Environmental Radiation Facility 1890 Federal Dr. Montgomery, AL 26109	o Director, Eastern Environ. Radiation Facility	"	"

APPENDIX 3-B - ACCIDENT/ILLNESS INVESTIGATION PROCEDURES

1. Prepare log for all EPA Reportable accident, injuries, and illnesses.

2. Enter all accidents, injuries, and illnesses reports; number these consecutively. This becomes the Control Number.

3. Prepare a log for OSHA recordable accidents/illnesses.

4. Transfer OSHA recordable accident/illness from the EPA Reportable log to the OSHA recordable log using Control Number.

5. Prepare a separate file for each OSHA recordable accident/illness.

6. Report immediately to OHSS

   a. A fatality.

   b. A disabling injury

      (1) Involving loss of use of principal part of the body,

      (2) Total disability, or

      (3) Five or more employees injured in a single accident requiring hospitalization.

   c. Property damage exceeding $10,000.00.

   d. An injury requiring medical attention or a fatality to non-EPA personnel or $10,000.00 damage to non-EPA property.

7. Priority of Accident Investigation

   a. OSHA recordable.

   b. EPA reportable.

   c. all other incident, i.e. property, near misses, etc.

8. Accident Investigation - Within five working days after receipt of EPA Form 1440-9, Supervisor's Report of Accident/Illness.

   a. Interview the employee who had the accident;

      (1) Put the employee at ease.

      (2) Conduct the interview at the scene of the incident if possible.

(3) Ask for the employee's version of the incident.

(4) Ask any necessary questions (what, when, where, but not why).

(5) Repeat the employee's story - correct any misunderstandings.

(6) Close the interview on a positive note - prevention.

b. Interview witnesses or persons familiar with the circumstances (use the same techniques as with employees).

c. Re-enact the incident only when absolutely necessary.

9. Accident Investigation Report (not accident report) should include:

a. Name of the employee.

b. Employee's occupation.

c. When and where did it happen.

d. What inflicted the injury or damage.

e. Who had the most control of what inflicted the injury or damage.

f. What happened.

g. What things caused the accident

(1) Immediate.

(2) Basic.

h. How can the incident be kept from happening again.

10. Review accident/illness reports with the Occupational Health and Safety Committee.

APPENDIX 3-C - SUPERVISOR'S REPORT OF ACCIDENT/ILLNESS

SUPERVISOR'S REPORT OF ACCIDENT/ILLNESS
(1146-DOL-XX)

MAIL TO:

EPA Headquarters
Occupational Health and Safety Staff
Management Information Systems (PM 273,
Washington, DC 20460

RETURN MAILING ADDRESS

TELEPHONE (FTS)

AGENCY ORG CODE

INSTRUCTIONS:

Retain this copy for your office operating files.
You may be contacted by your Safety Designee for additional information.

NAME OF INJURED OR ILL EMPLOYEE

JOB TITLE/SERIES/GRADE

DATE OF ACCIDENT

TIME OF ACCIDENT

EXACT LOCATION OF ACCIDENT

INJURY OR ILLNESS AND PART(S) OF BODY INVOLVED *(e.g., fractured left leg, crushed right hand)*

ESTIMATED LENGTH OF MEDICAL TREATMENT *(if injury or illness)*

☐ FIRST AID ONLY ☐ ____ DAYS OF RESTRICTED WORK ACTIVITY ☐ ____ DAYS AWAY FROM WORK ☐ FATAL

GOVERNMENT PROPERTY DAMAGE
☐ NO ☐ YES

ESTIMATED DAMAGE COST
$

APPROPRIATE CA FORMS COMPLETED
☐ YES ☐ NO ☐ N/A

NARRATIVE DESCRIPTION OF ACCIDENT *(Tell what happened and how it happened. Use additional sheets of paper if needed.)*

CORRECTIVE ACTION WHICH HAS BEEN TAKEN

CORRECTIVE ACTION WHICH REMAINS TO BE TAKEN *(By whom and by when)*

NAME OF SUPERVISOR *(typed or printed)*

TITLE

SIGNATURE OF SUPERVISOR

DATE

EPA Form 1440-9 (Rev. 1-82) Previous edition is obsolete.

DISTRIBUTION: White . . . . EPA HQ [illegible]
Green . . . . Personnel [illegible]
Canary . . . . Safety [illegible]
Pink . . . . Supervi[illegible]
Goldenrod . . Employee

Bureau of Labor Statistics
Log and Summary of Occupational Injuries and Illnesses

U.S. Department of Labor

For Calendar Year 19 _____ Page ___ of ___

Company Name
Establishment Name
Establishment Address

Form Approved
O.M.B. No. 1220-0029

NOTICE: This form is required by Public Law 91-596 and must be kept in the establishment for 5 years. Failure to maintain and post can result in the issuance of citations and assessment of penalties. (See posting requirements on the other side of form.)

RECORDABLE CASES: You are required to record information about every occupational death, every nonfatal occupational illness, and those nonfatal occupational injuries which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment beyond that first aid. (See definitions on the other side of form.)

Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness	Extent of and Outcome of INJURY: Fatalities	Nonfatal Injuries: Injury Related	Injuries With Lost Workdays				Injuries Without Lost Workdays	Type, Extent of, and Outcome of ILLNESS: Type of Illness	Fatalities	Nonfatal Illnesses: Illness Related	Illnesses With Lost Workdays				Illnesses Without Lost Workdays
Enter a number to identify the case. We suggest numbering the cases consecutively.	Enter the date of injury or onset of illness.	Enter first name or initial, middle initial, last name.	Enter regular job title, not activity employee was performing when injured or at onset of illness. In the absence of a formal title, enter a brief description of the employee's duties.	Enter department in which the employee is regularly employed or a description of normal workplace to which employee is assigned, even though temporarily working in another department at the time of injury or illness.	Enter a brief description of the injury or illness and indicate the part or parts of body affected. Typical entries for this column might be - Amputation of 1st joint right forefinger. Strain of lower back. Contact dermatitis on both hands. (See instruction - Body Parts.)	Enter DATE of death.	Enter a CHECK if injury involved days away from work, or days of restricted work activity, or both.	Enter a CHECK if injury involves days away from work.	Enter number of DAYS away from work.	Enter number of DAYS of restricted work activity.	Enter a CHECK if no entry was made in col. (prev) 1 or 2 but the injury is recordable as defined above.	CHECK Only One Column for Each Illness. (See other side of form for combinations for permanent impairment.) Occupational Skin Diseases or Disorders. Dust Diseases of the Lungs. Respiratory Conditions Due to Toxic Agents. Poisoning (Systemic Effects of Toxic Materials). Disorders Due to Physical Agents (Other than Toxic Materials). Disorders Associated with Repeated Trauma. All other occupational illnesses.	Enter DATE of death.	Enter a CHECK if illness involves days away from work, or days of restricted work activity, or both.	Enter a CHECK if illness involves days away from work.	Enter number of DAYS away from work.	Enter number of DAYS of restricted work activity.	Enter a CHECK if no entry was made in col. (prev) 6 or 7.
(A)	(B)	(C)	(D)	(E)	(F)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)

INJURIES

ILLNESSES

Certification of Annual Summary Totals By _____ Title _____ Date _____

OSHA No. 200

POST ONLY THIS PORTION OF THE LAST PAGE NO LATER THAN FEBRUARY 1

EPA requires that all job-related accidents be reported.

For Calendar Year 19 _____ Page ___ of ___

Company Name

Establishment Name

Establishment Address

Form Approved
O M B No 1220-0029

Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness
		Give full name or initials, middle initial, last name.	Enter regular job title, not activity employee was performing when injured or at onset of illness. In the absence of a formal title, enter a brief description of the employee's duties.	Enter department in which the employee is regularly employed or a description of normal workplace to which employee is assigned even though temporarily employed in another department or at other times of injury or illness.	Enter a brief description of the injury or illness and indicate the part or parts of body affected. Explain and use for this column might be Amputation of 1st joint right forefinger. Strain of lower back. Contact dermatitis on both hands. If no injury, leave blank.
(1)	(2)	(3)	(4)	(5)	(6)

Fatalities	Nonfatal Injuries				
Injury Related	Injuries With Lost Workdays				Injuries Without Lost Workdays
Enter DATE of death	Enter a CHECK if injury involves days away from work, or days of restricted work activity, or both	Enter a CHECK if injury involves days away from work	Enter number of DAYS away from work	Enter number of DAYS of restricted work activity	Enter a CHECK if no entry was made in col. 1 or 2 but the injury is recordable as defined above
(7)	(8)	(9)	(10)	(11)	(12)

Fatalities	Nonfatal Illnesses				
Illness Related	Illnesses With Lost Workdays				Illnesses Without Lost Workdays
Enter DATE of death	Enter a CHECK if illness involves days away from work, or days of restricted work activity, or both	Enter a CHECK if illness involves days away from work	Enter number of DAYS away from work	Enter number of DAYS of restricted work activity	Enter a CHECK if no entry was made in col. 8 or 9
(13)	(14)	(15)	(16)	(17)	(18)

Type of Illness

CHECK Only One Column for Each Illness (See other side of form for descriptions of permanent impairing.)

Occupational Skin Disease	Dust Diseases of the Lung	Respiratory Conditions due to Toxic Agents	Poisoning (Systemic effect of toxic materials)	Disorders due to Physical Agents (Radiation, heat, light, etc.)	Disorders due to Repeated Trauma	All other occupational illnesses
(a)	(b)	(c)	(d)	(e)	(f)	(g)

INJURIES

ILLNESSES

Certification of Annual Summary Totals By _____ Title _____ Date _____

OSHA No. 200

POST ONLY THIS PORTION OF THE LAST PAGE NO LATER THAN FEBRUARY 1.

APPENDIX 3-F - ANNUAL SUMMARY OF FEDERAL OCCUPATIONAL INJURIES AND ILLNESSES

Annual Summary of Federal Occupational Injuries and Illnesses

Emergency Report Control No. 1146-SOL-xx

U.S. Department of Labor

General Instructions: Complete according to the instructions on the back of this page in accordance with 29 CFR 1960.67(b). This form should be forwarded so as to be received no later than 45 calendar days after the close of the calendar year.

Establishment Code No.

Report Prepared By

Title

Date Phone

Report for the agency identified below

Comments (Please enter here or in space provided on the back. If more space is needed, extra pages may be attached.)

A. Report Identification
This is the separate summary report for:
☐ A.1 Civilian Personnel
☐ A.3 Youth Programs

B. Reporting Period Ending Date ☐☐ Month ☐☐ Day ☐☐ Year

Injury and Illness Category	Code	Total Cases (No. of checks in Column 1 of OSHA 100) Column 1	Total Deaths (No. of checks in Column 2 of OSHA 100) Column 2	Lost Workday Cases: Total Lost Workday Cases (No. of checks in Column 3 of OSHA 100) Column 3	Lost Workday Cases: Total Cases Involving Days Away From Work (No. of checks in Column 3A of OSHA 100) Column 4	Lost Workday Cases: Total Days Away From Work (Sum of entries in Column 3A of OSHA 100) Column 5	Lost Workday Cases: Total Days of Restricted Work Activity (Sum of entries in Column 3B of OSHA 100) Column 6	Total Nonfatal Cases Without Lost Workdays (No. of checks in Column 10 of OSHA 100) Column 7	Total Terminations or Permanent Transfers (No. of checks in Column 11 of OSHA 100) Column 8
Occupational Injuries	10								
Occupational Illnesses									
Occupational Skin Diseases or Disorders	21								
Dust Diseases of the Lungs	22								
Respiratory Conditions Due to Toxic Agents	23								
Poisoning (Systemic Effects of Toxic Materials	24								
Disorders Associated With Repeated Trauma	25								
Disorders Due to Physical Agents	26								
All Other Occupational Illnesses	29								
Total—Occupational Illnesses (Sum of codes 21 through 29)	30								
Total—Occupational Injuries and Illnesses (Sum of code 10 and code 30)	31								

Total employee-hours worked by all employees	49												
Average number of employees	50												
Average work week for all employees	51	☐ Check this box only when average work week for all employees is (a) less than 30 hours or (b) more than 50 hours per week.											

USDL/OSHA 100F (Revised 12-81)

Instructions

Report Identification
Insert a check-mark (✓) in the appropriate square box to identify data contained in the report: as either Civilian Personnel or Youth Programs

Reporting Period Ending Date
Self-explanatory

All entries must be summarized from the log (OSHA No. 100F) or its equivalent. Before preparing the summary, review the log to be sure that: entries are correct and each case is included in only one of the following cases: Deaths (date in column 8); Lost Workday Cases (check in column 9); or Nonfatal Cases Without Lost Workdays (check in column 10). If an employee's loss of workdays is continuing at the time the annual summary is being made, estimate the number of future workdays he will lose and add that to the workdays he has already lost and include this total in the annual summary. No further entries are to be made with respect to such cases in the next year's annual summary.

Occupational Injuries and the seven categories of Occupational Illnesses, are to be summarized separately. Identify each case by the code in column 7 of the Log of Occupational Illnesses and Injuries, OSHA 100F Log.

A. Code 10: Occupational Injuries
Record the following on the line designated by Code 10 in the OSHA 102F (identified by Code 10 in Column 7 of the OSHA No. 100F Log)

Column 1: Total Cases
Count the number of times Code 10 appears in Column 7 of the OSHA No. 100F Log.
Enter the total of this count under Column 1 of the OSHA No. 102F

Column 2: Total Deaths
Count the number of times a date appears in Column 7 of the OSHA No. 100F Log.
Enter the total of this count under Column 2 of the OSHA 102F

Column 3: Total Lost Workday Cases
Count the number of times a check-mark (✓) appears in Column 9 of the OSHA 100F Log.
Enter the total of this count under Column 3 of the OSAH 102F

Column 4: Total Cases Involving Days Away From Work
Count the number of times an entry (don't total the numbers) appears in Column 9A of the OSHA No. 100F Log.
Enter the total of this count under Column 4 of the OSHA 102F

Column 5: Total Days Away From Work
Add all the entries (total the numbers) which appear in Column 9A of the OSHA No. 100F Log.
Enter the total of this count under Column 4 of the OSHA No. 102F

Column 6: Total Days of Restricted Work Activity
Add all the entries (total the numbers) which appear in Column 9B of the OSHA No. 100F Log.
Enter the total of this action under Column 6 of the OSHA No. 102F

Column 7: Total Nonfatal Injury Cases Without Lost Workdays
Count the number of times a check-mark (✓) appears in Column 10 of the OSHA No. 102F Log.
Enter the total of this count under Column 7 of the OSHA No. 102F

Column 8: Total Injury Cases which Result in Termination of Employment or Permanent Job Transfers
Count the number of times a check-mark (✓) appears in Column 11 of the OSHA No. 100F Log.
Enter the total of this count under Column 8 of the OSHA No. 102F.

CHECK: From the totals entered according to the instructions above, an easy check can be made. Add the entries under Columns 2, 3, and 7, and this total must equal the entry for Column 1 (Columns 2+3+7 = Column 1)

B. Codes 21 through 29: Occupational Illness Codes
Follow the procedure for A above for each illness code, entering the totals on the appropriate line of the form.

C. Code 30: Total—Occupational Illnesses
Add the entries for codes 21 through 29 in each column and enter totals on the line for code 30

D. Code 31: Total—Occupational Illnesses and Injuries
Add the entries for codes 10 and 30 in each column and enter totals on the line for code 31

CHECK: If the summary has been made correctly, the entry in column 1 of the total line (code 31) of this form will equal the total number of cases on the log

E. Code 40: Total Employee-Hours Worked by all Employees
Employee-hours worked by all employees on office duty at the reporting workplace during the reporting period, excluding vacations, holidays, sick leave, and other nonwork time. Count only the actual hours of overtime worked. If any employee worked irregular hours or if any part-time workers were employed, care should be taken to include their actual hours worked.

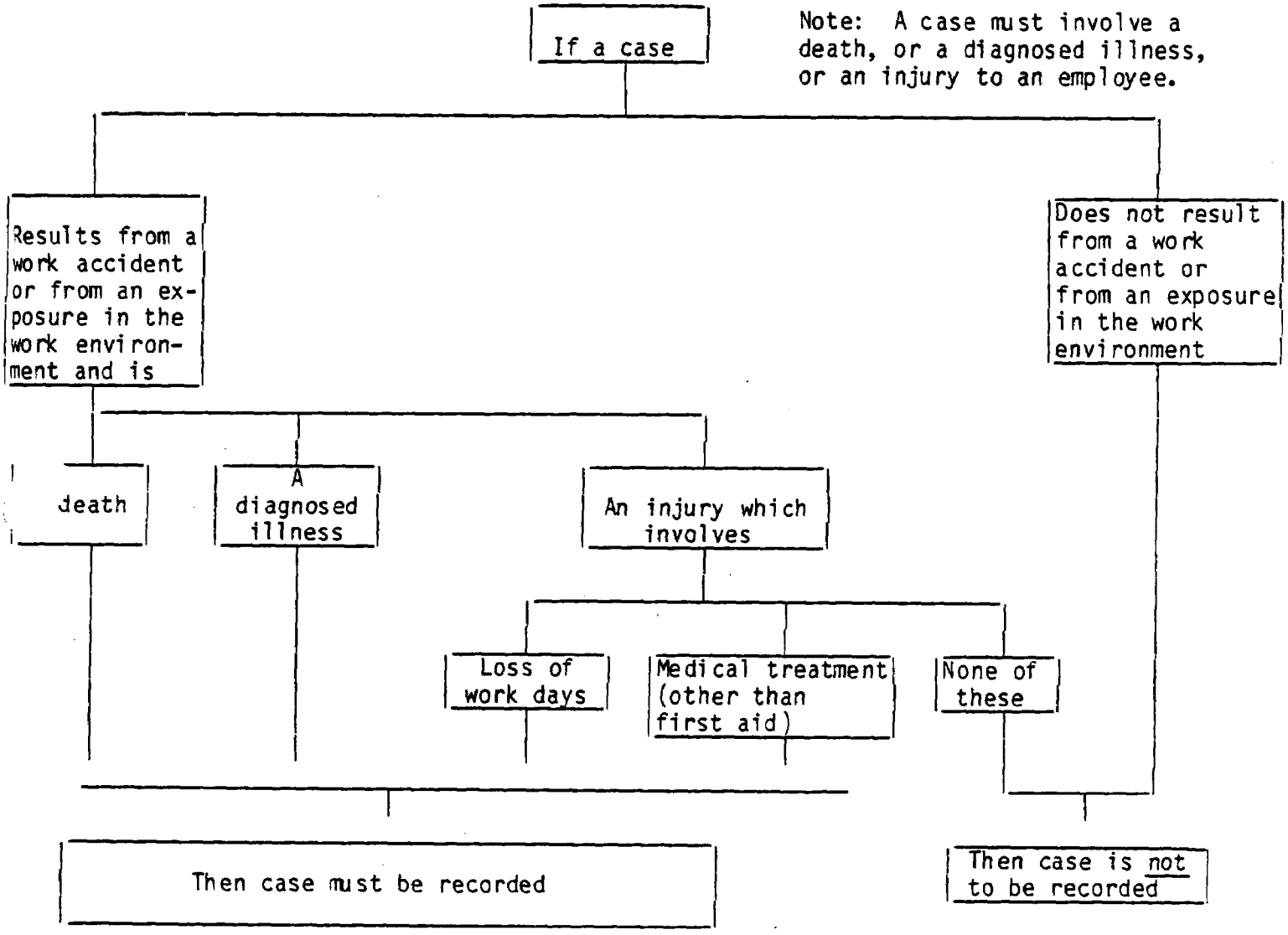
F. Code 50: Average Number of Employees
Insert the average number of full and part time employees during the reporting period. Include all classes of employees (i.e., administrative, supervisory, clerical, professional, technical, other related workers, etc.).

G. Code 51: Average Work Week for all Employees
If the average work week for the employees in your agency varies more or less than 25% of the normal work week, i.e., 40 hours, check the box for code 51, otherwise, leave it blank.

Examples: (a) employees worked so much overtime that the average work week went from 40 hours per week to over 50 hours per week. (b) there are so many part-time employees in your agency that the average work week dropped from 40 hours per week to less than 30 hours per week

Comments: (Extra page(s) may be attached if necessary.)

APPENDIX 3-G - FLOW CHART DEPICTING OSHA RECORDING CRITERIA



CHAPTER 4 - INSPECTIONS AND ABATEMENT OF UNHEALTHFUL OR UNSAFE WORKING CONDITIONS

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Inspection Documentation	8
Reports on Unhealthful or Unsafe Working Conditions	9
Correction of Unhealthful or Unsafe Working Conditions	10
Imminent Danger	11

FIGURE TITLES	FIGURE NUMBERS
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CHAPTER 4 - INSPECTIONS AND ABATEMENT OF UNHEALTHFUL OR UNSAFE WORKING CONDITIONS

1. GENERAL. Executive Order 12196 provides that the head of each agency shall give prompt attention to reports by employees or others of unhealthful or unsafe working conditions; shall assure periodic inspections of agency workplaces by personnel with sufficient technical competence to recognize unhealthful or unsafe working conditions; and shall assure prompt abatement of unhealthful or unsafe working conditions.

2. RESPONSIBILITIES.

a. The Agency Designated Occupational Health and Safety Official is responsible for assuring that formal health and safety inspections are conducted at all EPA workplaces.

b. The Director, Occupational Health and Safety Staff, is responsible for the performance of formal health and safety inspections at all EPA workplaces or for approving plans developed by locations which elect to perform their own formal inspections. The Director is also responsible for the review of all formal health and safety inspection reports and acts as the designee of the EPA Designated Occupational Health and Safety Official for the review and coordination of abatement plans. The Director is responsible for making assessments and determinations as may be required to meet the Agency's need to conduct self-evaluations of its Occupational Health and Safety programs.

c. Assistant Administrators, the General Counsel, the Inspector General, Associate Administrators, Regional Administrators, and Staff Office Directors are responsible for assuring that informal health and safety inspections are conducted at workplaces under their jurisdiction and, should they elect to make their own formal inspection, for assuring that plans for inspections are approved by the Director, Occupational Health and Safety Staff. They are also responsible for taking direct action to correct unhealthful or unsafe working conditions brought to their attention by following the procedures outlined in paragraph 10 of this Chapter.

d. Employees or employee representatives may submit reports of unhealthful and unsafe working conditions to the Director, Occupational Health and Safety Staff, or to the Designated Agency Occupational Health and Safety Official by following the procedures specified in paragraph 9 of this Chapter.

e. Regional Safety Managers, Laboratory Safety Managers, Facilities Safety Managers, and/or local Occupational Health and Safety Designees are responsible to the Officer-in-Charge for the implementation and performance of local health and safety programs.

3. GENERAL REQUIREMENTS.

a. Inspectors. Executive Order 12196 requires that each Agency utilize as inspectors personnel with sufficient technical competence to recognize unsafe or unhealthful working conditions in the workplace. The qualifications of each inspector shall be reviewed and approved in accordance with EPA Order 1440.5, Qualifications and Training Requirements for OHS Program Personnel.

(1) Health and safety inspections shall be made by a safety and health specialist approved as above.

(2) Inspectors will be granted unlimited access to areas to be inspected unless the area contains information classified in the interest of national security. Inspectors will have unlimited access to those areas but will be escorted at all times by personnel who have been cleared for access to confidential information.

(3) Under normal circumstances, advance notice of formal health and safety inspections will be given.

(4) During the course of the inspection, the inspector should consult with employees concerning matters of occupational health and safety to the extent that the inspector deems necessary for the conduct of an effective and thorough inspection. Employees must be afforded the opportunity to bring to the attention of the inspector any unhealthful or unsafe working conditions which they have reason to believe exist in the workplace.

(5) Inspectors shall comply with all health and safety rules and practices at the establishment being inspected, and wear and use appropriate protective clothing and equipment when necessary.

(6) The conduct of inspections should be such as to preclude unreasonable disruption of the operations of the establishment.

(7) At the conclusion of an inspection, the inspector shall confer with the Officer-in-Charge of the Reporting Unit or his or her representative and an appropriate representative of the employees of the establishment, and informally advise them of any unhealthful or unsafe working conditions disclosed by the inspection. During the conference, the Officer-in-Charge of the Reporting Unit and the employee representative should be afforded an opportunity to bring to the attention of the inspector pertinent information regarding conditions in the workplace which might effect his or her recommendations. (The closing conference is designed to provide a description of deficiencies and a discussion of possible corrective actions.)

(8) Inspectors shall be in charge of the inspections and the questioning of persons. A representative of the Officer-in-Charge of the Reporting Unit and a representative of the employees shall be given

n opportunity to accompany the inspector during the physical inspection of any workplace, both to aid the inspector and to provide more detailed knowledge about the existing or potential unhealthful or unsafe working condition. The members of an establishment's health and safety committee may act as representatives for the purposes of this paragraph, if the committee and the Officer-in-Charge of the Reporting Unit so agree.

(9) Inspectors are authorized to deny the right of accompaniment to any person whose participation interferes with a fair and orderly inspection.

4. FORMAL INSPECTIONS. A formal health and safety inspection is an in-depth evaluation of every aspect of program operations and facilities, aimed at assessing the effectiveness of the local health and safety program, identifying hazards and recommending corrective actions. A formal health and safety inspection shall be conducted at each workplace, including offices, at least once annually. For workplaces where there is an increased risk of accident, injury, or illness due to the nature of the work being performed, inspections should be conducted more frequently, as determined by the Director, Occupational Health and Safety Staff.

5. FORMAL EVALUATIONS. The Occupational Health and Safety Staff has developed a program of laboratory and facility evaluations to determine the effectiveness of the occupational health and safety programs and the quality of the facilities. These evaluations may be completed in onjunction with the annual formal inspections and will be conducted by ne Occupational Health and Safety Staff or designee appointed by the Director, Occupational Health and Safety Staff.

6. INFORMAL INSPECTIONS. An informal inspection shall be performed on an unscheduled, frequent basis by the Facility Safety Designee, Regional Health and Safety Designee, Laboratory Health Officer, Supervisory Management, or members of a health and safety committee. EPA Form 1440-2, Health and Safety Inspection Checklist, Figure 4-1, may be utilized to note health and safety deficiencies identified during the inspection, or a report in memo form may be used to record discrepancies. The affected supervisor should receive copies of all inspection reports.

7. WALK-THROUGH INSPECTIONS. A walk-through inspection is similar to an informal inspection except that the only documentation required is a list of identified deficiencies for which corrective action is needed. This recordkeeping is intended only for internal purposes to identify items which appear repeatedly. For example, if blocked fire exits were noted repeatedly during walk-through inspections, then a more formal approach to achieving correction is indicated.

The walk-through concept encourages a more frequent review of the facility and operational conditions without the need for documentation and formal reporting.

8. INSPECTION DOCUMENTATION.

a. Formal Inspection. The results of a formal inspection shall be documented in a comprehensive health and safety inspection report. This report shall be transmitted by the inspector to the Officer-in-Charge of the Reporting Unit, who will submit a copy to the Director, Occupational Health and Safety Staff. Correction of unhealthful or unsafe working conditions identified by means of a formal inspection shall be accomplished in accordance with paragraph 10 of this Chapter.

b. Informal Inspection. The results of an informal inspection should be documented either by a memorandum or a completed EPA Form 1440-2 transmitted by the inspector or member of a health and safety committee conducting the inspection to the Officer-in-Charge. The individual(s) making the inspection should also make a report to the Health and Safety Committee.

c. Walk-through Inspection. A log or file of identified deficiencies shall be kept in sufficient detail to show the hazard items and locations.

9. REPORTS OF UNHEALTHFUL OR UNSAFE WORKING CONDITIONS.

a. Reports by Employee or Employee Representative. Any employee or representative of employees who believes that an unhealthful or unsafe working condition exists in any workplace shall report the condition, orally or in writing, to the supervisor within whose organizational jurisdiction the alleged unhealthful or unsafe working condition exists. EPA Form 1440-6, Figure 4-2, may be used to report an alleged unhealthful or unsafe working condition and to provide written notification to the OHS Designee. The supervisor should respond immediately to a report of an alleged unhealthful or unsafe working condition, notifying the OHS Designee regardless of whether the condition was reported orally or in writing, informing the employee or representative of employees as to what action he or she is taking or intends to take. If abatement of the alleged unhealthful or unsafe condition is beyond the capability of the supervisor, he or she should immediately contact his or her superior or the Officer-in-Charge of the Reporting Unit for resolution of the problem. Any such report should be reduced to writing, should set forth with reasonable particularity the grounds for the report, and should be signed by the employee or representative of employees. In case of imminent danger situations, employees should make reports first by telephone and then in writing as soon thereafter as practicable.

The Director, Occupational Health and Safety Staff, shall review the report. He or she will assure response to such reports of hazardous conditions and require inspections immediately or within 24 hours for imminent dangers, three working days for potential serious conditions and 20 working days for other conditions.

The employee or representative of employees can request an inspection of the workplace where the condition is alleged to exist by giving a report of the alleged condition to the Director, Occupational Health and Safety Staff.

b. Appeal to Agency Designated Occupational Health and Safety Official. If an employee or a representative of the employee is not satisfied with the review conducted, he or she may directly request the intervention of the Agency Designated Occupational Health and Safety Official and/or the Assistant Secretary of Labor, Occupational Safety and Health Administration (OSHA).

c. Right of Anonymity. All employees have the right to anonymity when making these reports. The Designated Occupational Health and Safety Official or the Director, Occupational Health and Safety Staff, may find it necessary to confer with the originator of the report if it is apparent that further assistance is needed to determine more accurately the location or type of conditions noted.

d. Employee Rights. No employee will be subjected to restraint, interference, coercion, discrimination or reprisal for filing a report of an unsafe condition or for participation in Agency Occupational Safety and Health Program activities. (See Chapter 2, Appendix 2-A.)

e. Scope. Inspections initiated pursuant to this paragraph are not limited to matters referred to in the report of an alleged unhealthful or unsafe working condition. Before or during any inspection of a workplace, any employee or representative of employees may notify the health and safety inspector of any other unhealthful or unsafe working condition believed to exist in the workplace.

f. Determinations.

(1) If the Director, Occupational Health and Safety Staff, determines that there are no reasonable grounds to believe an unhealthful or unsafe working condition exists, or if an inspection is made on the basis of a report alleging such condition but no such condition is determined to exist, the employee or representative of the employees who filed the report shall be so notified in writing. The employee or representative of employees shall be given an opportunity for a final review of such determination by the Director, Occupational Health and Safety Staff, and may appeal to the Agency Designated Occupational Health and Safety Official, pursuant to paragraph 9.c. above.

(2) The Director, Occupational Health and Safety Staff, may also utilize an appropriate health and safety committee created pursuant to Chapter 5 of this Manual to determine whether an unhealthful or unsafe working condition exists, but should ensure that the identify of the person making the report will be protected.

g. Unresolved Reports. Any employee or representative of employees who files a report alleging an unhealthful or unsafe working condition, and who is dissatisfied with the final disposition by the Agency, may contact in writing the Office of Federal Agency Safety Programs, U.S. Department of Labor (with a copy to the Designated Occupational Health and Safety Official*), describing in detail the processing of his or her report and setting forth his or her objections thereto. The Agency shall notify each such person of his or her right to contact OSHA upon final disposition of his or her report. The Office of Federal Agency Safety Programs may request the Agency to submit the report of its investigation, and may arrange for an inspection of the alleged unhealthful or unsafe working condition if necessary. Files on such reports will be maintained intact for five years following the end of the calendar year to which they relate, by the Director, Occupational Health and Safety Staff, so that the Secretary of Labor or an authorized representative will have reasonable access to them.

10. CORRECTION OF UNHEALTHFUL OR UNSAFE WORKING CONDITIONS.

a. The Officers-in-Charge of the Reporting Units are responsible for the correction of unhealthful and unsafe working conditions.

b. The Officer-in-Charge of the Reporting Unit shall immediately submit an abatement plan to the Director, Occupational Health and Safety Staff, if in his or her judgment the abatement of an unhealthful or unsafe working condition will not be possible within 30 working days. Such a plan must contain an explanation of the circumstances of the delay in abatement, a proposed timetable for the abatement, and a summary of steps being taken in the interim to protect employees from the unsafe or unhealthful working condition. Any changes in an abatement plan will require the submission of a new plan in accordance with the provisions of this paragraph.

c. The Officer-in-Charge of the Reporting Unit shall keep the Health and Safety Committee Chairperson of the establishment or reporting unit informed as to action being taken to correct unhealthful or unsafe working conditions. The committee shall include this information in the minutes of regular meetings.

d. The procedures to determine that corrective action has been taken should include reinspection. If upon reinspection, it appears that the correction was not made, or was not carried out in accordance with an abatement plan submitted pursuant to subparagraph 10b, the Director, Occupational Health and Safety Staff, will inform the Agency Designated Occupational Health and Safety Official of the failure to accomplish the abatement plan.

* This copy to the Designated Occupational Health and Safety Official is not mandatory. The employee may file a report with

OSHA, following approved OSHA procedures, and be assured of annonymity. Information on these procedures is posted in all EPA locations.

11. IMMINENT DANGER. Whenever and as soon as it is concluded, on the basis of an inspection, that a danger exists which could reasonably be expected to cause death or serious physical harm, the Inspector shall immediately inform the affected employees and Officer-in-Charge of the Reporting Unit of the danger. The Officer-in-Charge, or a representative, shall undertake immediate abatement and the withdrawal of employees who are not necessary for abatement of the dangerous condition. In the event that the Officer-in-Charge needs assistance to undertake full abatement, the Director, Occupational Health and Safety Staff, shall assist in the abatement effort.

HEALTH AND SAFETY INSPECTION CHECKLIST

INSPECTION CONDUCTED BY	TITLE	DATE

NAME/NUMBER OF BUILDING INSPECTED *(Use separate form for each building)*	REPORTING UNIT

PART I. PHYSICAL CONDITIONS *(Check each applicable item)*

ITEM	SAT	UNSAT	ITEM	SAT	UNSAT
1. HOUSEKEEPING AND SANITATION			18. ELECTRICAL AND ELECTRONIC EQUIPMENT		
2. NON-HAZARDOUS MATERIALS STORAGE			19. WATER *(anti-syphon and cross-connections)*		
3. HAZARDOUS MATERIALS STORAGE			20. ELECTRICAL *(fuses, grounding, etc.)*		
4. MATERIALS HANDLING EQUIPMENT			21. COMPRESSED GAS CYLINDERS		
5. AISLES AND WALKWAYS			22. STRUCTURAL CONDITION OF BUILDING		
6. LADDERS AND STAIRS			23. PARKING AREA		
7. FLOORS, PLATFORMS AND RAILINGS			24. MOTOR VEHICLES		
8. EGRESS			25. PORTABLE TOOLS		
9. LIGHTING			26. PROTECTIVE CLOTHING AND EQUIPMENT		
10. VENTILATION			27. HAZARDOUS WARNINGS SIGNS		
11. FLAMMABLE OR NOXIOUS DUST OR VAPORS			28. EMISSION OF POLLUTANTS *(air, fluid, solids)*		
12. HAZARDOUS BIOLOGICAL AGENTS			29. OCCUPATIONAL NOISE EXPOSURE		
13. FIRE DETECTION DEVICES			30. MEDICAL SERVICES, INCLUDING FIRST AID		
14. FIRE ALARM SYSTEM			31. PROVISIONS FOR HANDICAPPED		
15. FIRE SUPPRESSION *(Including extinguishers)*			32. OTHER		
16. MECHANICAL EQUIPMENT					
17. MACHINE GUARDS AND SAFETY DEVICES					

PART II. PROCEDURES AND INSTRUCTIONS *(Check each applicable item)*

33. MATERIALS HANDLING			45. FIELD OPERATIONS, OTHER		
34. MOTOR VEHICLE OPERATION			46. SAFETY COMMITTEE ACTIVITY		
35. BUILDING MAINTENANCE			47. FEDERAL SAFETY COUNCIL PARTICIPATION		
36. EQUIPMENT MAINTENANCE			48. EMPLOYEE REPRESENTATION IN SAFETY AND HEALTH PROGRAM		
37. USE OF PROTECTIVE CLOTHING AND EQUIPMENT			49. JOB ORIENTATION		
38. HAZARD MONITORING EQUIPMENT *(carbon monixide, radiation, etc.)*			50. JOB TRAINING, INCLUDING SAFETY AND HEALTH		
39. FACILITY SELF-PROTECTION PLAN			51. SAFETY PROMOTIONAL AND MOTIVATIONAL ACTIVITIES		
40. LABORATORY OPERATIONS					
41. BOATING OPERATIONS			52. PERIODIC PHYSICAL EXAMINATIONS		
42. DIVING OPERATIONS			53. OTHER		
43. AVIATION OPERATIONS					
44. CRAFTS AND SHOPS OPERATIONS					

REMARKS *(Continue on back if necessary)* (NOTE: *Use EPA Form 1440-6 to document in detail each unhealthful or unsafe condition)*

EPA Form 1440-2 (Rev. 5-77) PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED

Figure 4-1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

EPA

EMPLOYEE REPORT OF UNSAFE OR UNHEALTHFUL CONDITION

TO:	FROM:
	Telephone

Brief Description of Unsafe or Unhealthful Condition:

Exact Location:

Safety and Health Standard Violated *(if known)*

Recommendation To Correct the Condition

Signature	Date

Response to Employee

Signature	Date

EPA Form 1440-6 (Rev. 6-84) Previous edition is obsolete.

Distribution:
White ..... *Supervisor*
Green ..... *Reply to Employee*
Canary ..... *Employee Suspense Copy*
Goldenrod ..... *Safety Designee*

U.S. GOVERNMENT PRINTING OFFICE-1984-446-267/7384

Figure 4-2

CHAPTER 5 - OCCUPATIONAL HEALTH AND SAFETY COMMITTEES

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APPENDIX 5-A - Suggested Policy and Procedures for the Administrative Control of an Executive Occupational Health and Safety Committee

APPENDIX 5-B - Suggested Policy and Procedures for the Administrative Control of an Operational Occupational Health and Safety Committee

APPENDIX 5-C - Suggested Policy and Procedures for the Administrative Control of a Specicalized Occupational Health and Safety Committee

CHAPTER 5 - OCCUPATIONAL HEALTH AND SAFETY COMMITTEES

1. GENERAL. Under Executive Order 12196, Section 1-301, the EPA may, if it chooses, establish OSHA certified occupational health and safety committees which meet the minimum requirements of the Secretary of Labor as described in 29 CFR 1960.36. The EPA declined to establish OSHA certified committees choosing rather to retain its existing committee structure. This declination was based upon EPA's feeling that its existing committee structure adequately provides for effective representation of all Agency employees and in no way diminishes the Agency's goal of providing its employees with places and conditions of employment free from recognized hazards which are likely to cause death or serious harm. Therefore, reorganization of existing Agency occupational health and safety committees is not required.

EPA requires that an Occupational Health and Safety Committee be established at each Agency Reporting Unit and Establishment that effectively represents all employees. Each EPA Reporting Unit and Establishment may individually determine (through negotiation with the exclusive bargaining representative, if appropriate) the type and composition of its ocupational health and safety committee(s) consitent with its size and mission and the requirements of this Chapter.

2. OCCUPATIONAL HEALTH AND SAFETY COMMITTEE ORGANIZATION AND FUNCTIONS. The occupational health and safety committee is the medium for achieving the participation of employees in the Agency's occupational health and safety programs. A well-organized, balanced health and safety committee will have the diversified knowledge of all job operations and activities at its location. Committees should be advisory not policy-making groups. Committees should ascertain the facts and make recommendations so management can make intelligent policy decisions in the area of health and safety matters affecting employees. Agency health and safety committees shall be:

a. Effectively supported by management;

b. Given specific tasks to accomplish not general topics for consideration;

c. Include personnel from the program areas which committee decisions will affect;

d. Provide effective representation of all employees; and

e. Include a cross-section of experts who have intimate knowledge of pertinent work conditions and practices.

The occupational health and safety committees shall be kept as small as possible consistent with these requirements.

3. TYPES OF COMMITTEES. The requirements for an occupational health and safety committee at each Agency Reporting Unit and Establishment shall be fulfilled by establishing an operational committee alone or in combination with one or both of the types of committees listed below, depending on the need.

a. Executive Committee. An executive occupational health and safety committee includes key managers of the Reporting Unit or Establishment who have maximum knowledge of policy and procedures. The Officer-in-Charge of the Reporting Unit or Establishment or a principal deputy should be a member.

b. Operational Committee. An operational occupational health and safety committee consists of personnel from the programs or offices which the committee's recommendations will affect. Members of this committee should have access to the Executive Committee, if appropriate. This can be accomplished by appointing the chairperson of the operational committee as a member of the executive committee.

c. Specialized Committee. This committee consists of personnel from a program or programs that are involved in particularly hazardous operations that require emphasis on health and safety practices peculiar to that operation.

4. COMMITTEE MEMBERSHIP.

a. Membership of occupational health and safety committees shall be determined individually by the Officer-in-Charge of each Reporting Unit and Establishment, through negotiation with the exclusive bargaining representative, if appropriate.

EPA requires that operational occupational health and safety committees shall be managed in such a way as to assure effective representation of all employees. However, an equal membership of management and non-management employees is not mandatory. There are several ways to select and appoint occupational health and safety committee members.

(1) The Officer-in-Charge may select and appoint in writing the committee members from a list of nominees developed by the Occcupational Health and Safety Designee at the Reporting Unit or Establishment. (The Occupational Health and Safety Designee should develop the list of names from suggestions received from program supervisors and, if appropriate, the exclusive bargaining representative.)

(2) An election may be held and members elected from designated program areas or functions and officially appointed in writing by the Officer-in-Charge.

(3) A combination of 1 and 2 above is possible with official designation being made in writing by the Officer-in-Charge.

(4) Members may be appointed by the Officer-in-Charge from among employees who volunteer to serve on the occupational health and safety committee.

b. Occupational health and safety committee members shall serve overlapping terms. These terms may be of one, one and one-half, or two years duration depending on the requirements of the Reporting Unit or Establishment.

c. The committee chairperson should be nominated from among the committee's membership and elected by the committee members.

d. The Occupational Health and Safety Designee should attend committee meetings as technical advisor but should not be an official member of the occupational health and safety committee and should not chair the committee. The role of the Occupational Health and Safety Designee is to assist the committee in developing and implementing ideas and to effectively utilize the committee members' experience, knowledge, and talents in the health and safety program at the Reporting Unit or Establishment.

(NOTE: OHSS strongly recommends that the occupational health and safety committee chairperson be nominated and elected by the committee members. If management appoints a management representative as chairperson, it negates the intent of providing employees an opportunity to fully participate in the Agency's Occupational Health and Safety Programs. The Occupational Health and Safety Designee is also a representative of management. If the Designee serves as committee chairperson, any recommendations made by the committee and signed by the Designee as chairperson carries no more weight or significance than if the Designee had made the recommendation. The Designee serving as chairperson loses at least 50 percent of the effectiveness of the committee members' expertise in managing the occupational halth and safety programs at the Reporting Unit or Establishment.)

5. RESPONSIBILITIES AND DUTIES.

a. Agency Responsibilities. The EPA shall make available to occupational health and safety committees all information relevant and necessary to effectively perform their duties. The information shall include but is not be limited to:

(1) The Agency's occupational health and safety policies and programs;

(2) The human and financial resources available to implement the program;

(3) Material Safety Data Sheets; and

(4) Data on accidents, injuries, illnesses, epidemiological, and employee exposure monitoring; and

(5) Reports on inspection, reprisal investigations, abatement plans, NIOSH hazard evaluations, and internal and external occupational health and safety program evaluations.

The Agency shall provide all occupational health and safety committee members appropriate training as required in Chapter 7 of this Manual.

b. Occupational Health and Safety Committee Duties. The occupational health and safety committees are an integral part of the Agency's effort to insure the effective implementation of its occupational health and safety programs at all its Reporting Units and Establishments. Duties of the committees should include some or all of the following:

(1) Assist the Occupational Health and Safety Designee at the Reporting Unit or Establishment under its jurisdiction and make recommendations to the Officer-in-Charge on the operation of the program;

(2) Monitor findings and reports of inspections to confirm that appropriate corrective measures are implemented;

(3) Participate in inspections when requested by the Officer-in-Charge or when the committee deems it necessary to effectively monitor the Agency's inspection procedures;

(4) Review internal and external evaluation reports of the occupational health and safety program at the Reporting Unit or Establishment and make recommendations for changes or improvement in the program;

(5) Review and recommend changes, as appropriate, to procedures for handling health and safety suggestions and recommendations of the committee and from employees;

(6) Review and comment on standards proposed by the Agency, Reporting Unit, or Establishment;

(7) Monitor and recommend changes, as required, in the level of resources allocated and spent on the health and safety program at the Reporting Unit or Establishment;

(8) Review responses to reports of hazardous conditions, safety and health program deficiencies, and allegations of reprisal;

(9) Recommend changes or additions to improve protective clothing and equipment used by employees at the Reporting Unit or Establishment; and

(10) Promote health and safety training for members of the committee and other employees.

6. OCCUPATIONAL HEALTH AND SAFETY COMMITTEE MEETING. Each occupational health and safety committee shall establish a regular schedule of meetings. Special meetings shall be called when critical health and safety problems arise.

a. Frequency of Meetings.

(1) Executive Committee - An executive occupational health and safety committee shall meet quarterly but not less than semi-annually, and at other times as necessary to assist the Officer-in-Charge with the resolution of a health and safety management or policy recommendation issue.

(2) Operational Committee - An operational occupational health and safety committee shall meet monthly but not less than quarterly. Special meetings may be called by any member, the Officer-in-Charge, or the Occupatinal Health and Safety Designee when critical health and safety problems arise.

(3) Specialized Committee - A specialized occupational health and safety committee should meet at least quarterly, and at other times as necessary to assist the program managers in carrying out their health and safety responsibilities.

b. Preparation and Procedures for Meetings. To assure the maximum utilization of committee members' time and effort, sustain their interest and commitment, minimize the time necessary to monitor the business of the committee, clarify the content and objectives of each business item, and follow through on projects to assure completion without undue delay, the following procedures are recommended:

(1) The Occupational Health and Safety Designee shall:

(a) Prepare an agenda for the approval of the committee chairperson no later than five working days prior to the scheduled meeting;

(b) Prepare a notice of the meeting and deliver to each member along with a copy of the minutes of the last meeting and the agenda for the next meeting;

(c) Develop a brief description or explanation of each proposed business item prior to the meeting, including the objective of the item;

(d) Assign a title and a control number for all items accepted as health and safety committee business; and

(e) Establish a log and enter each accepted health and safety business item, showing the target date for completion and interim dates for accomplishment of intermediate steps, if appropriate.

(2) The Chairperson of the Committee shall:

(a) Establish a good meeting program;

1 Call the meeting to order;

2 Call for approval or revision of the minutes of the previous meeting;

3 Request the members to sign the attendance sheet;

4 Call for reports on assignments;

5 Request suggestions and discussion of work that needs to be done (members should be encouraged to come forward with ideas and suggestions);

6 Formally accept or reject all items as health and safety committee business;

7 Assign responsibility for each item to a specific member or members of the committee; and

8 Limit the meeting of the committee to one hour.

7. MINUTES OF THE OCCUPATIONAL HEALTH AND SAFETY COMMITTEE. The Occupational Health and Safety Designee should assure that pertinent points of the meeting are documented. The minutes of the meeting shall be prepared in memorandum form, approved, and signed by the Committee Chairperson. The minutes should contain:

a. A clear identification of the organizational unit;

b. The name and title of each member present; and

c. The substance of discussions of health and safety items, including any specific remedial actions recommended.

A copy of the minutes of each meeting of the occupational health and safety committees shall be forwarded to the Director, Occupational Health and Safety Staff, (PM-273), Washington, D.C. 20460, within 20 working days following the meeting. A copy of the minutes shall be furnished to each committee member and the Officer-in-Charge. The minutes shall be made available to any employee upon request.

8. OCCUPATIONAL HEALTH AND SAFETY COMMITTEE POLICY AND PROCEDURES. The Occupational Health and Safety Designee, with the assistance of the committee, should develop a written policy and procedures for the administrative control of committee activities. See Appendix 5-A,5-B, and 5-C as examples. These procedures should include:

a. The scope and purpose of the committee's activities;

b. The extent of its authority;

c. Frequency of meetings;

d. The date, time and place of meetings;

e. The order of business;

f. Records to be kept; and

g. Attendance requirements.

APPENDIX 5-A - SUGGESTED POLICY AND PROCEDURES FOR THE ADMINISTRATIVE CONTROL OF AN EXECUTIVE OCCUPATIONAL HEALTH AND SAFETY COMMITTEE

Name and Objective

The name of this Committee is (Reporting Unit or Establishment), Executive Occupational Health and Safety Committee.

The objectives of the Committee are to recommend approval of proposed health and safety program policy, procedures, guidelines, and training programs to the Officer-in-Charge.

The principle means for accomplishing these objectives shall be to hold meetings to review proposed program policy, procedures, guidelines, and training programs and recommend to the Officer-in-Charge the adoption, implementation, or revision of the proposals.

Membership

The Executive Occupational Health and Safety Committee shall consist of members from the following areas, appointed by the Officer-in-Charge for a period of (one, one and one-half or two years.)

- The deputy of the Officer-in-Charge;
- The program director delegated the health and safety program responsibility;
- Program directors or their deputies (especially from areas with serious health and safety factors);
- The chairperson of the Operational Occupational Health and Safety Committee;
- Employee representative(s); and
- The Occupational Health and Safety Designee (non-voting).

Members of the committee should select and elect from the membership, a Chairperson and (other officers necessary for conducting committee business) at their first meeting each Calendar Year. (Three, fours, five, six, etc. (a majority of the members of the committee, i.e., a committee of 5 - 3 is a majority; a committee of 6 - 4; a committee of 7 - 4; a committee of 8 - 5; a committee of 9 - 5; etc.)) of the members present shall constitute a quorum for the transaction of business.

Record of Meetings

After each meeting of the committee, the minutes shall be prepared in memorandum form, containing:

o A clear identification of the organizational unit;

o The name and title of each member present; and

o The substance of discussions of health and safety recommendations including any specific actions recommended.

A copy of the minutes of each meeting of the Executive Occupational Health and Safety Committee shall be forwarded to the Director, Occupational Health and Safety Staff, (PM-273), Washington, D.C. 20460, by the Occupational Health and Safety Designee within 20 working days following the meeting. A copy of the minutes of each meeting shall be forwarded to the Officer-in-Charge and each Committee member. Copies of the minutes will be made available to employees upon request.

Vacancy

Should a vacancy occur on the committee through resignation, transfer of responsibilities to a different program, office or location, or other cause, the Officer-in-Charge shall appoint another employee to fill the vacancy. A vacancy of an officer of the committee should be filled by a majority vote of the quorum of committee members present.

Meetings

The (Reporting Unit, Establishment name), Executive Occupational Health and Safety Committee shall meet at least quarterly, (specific day and time), and at other times necessary to assist the Officer-in-Charge with resolution of management or policy recommendation issues.

Duties and Responsibilities

Chairperson - The chairperson shall:

o Direct the activities of the committee in accordance with established procedures, providing leadership and coordination of all committee activities.

o Be empowered to appoint special sub-committees as they become necessary on the recommendation of committee members.

o Furnish each member of the committee with a list of their responsibilities and duties.

o Keep the Officer-in-Charge advised of progress or lack of progress in the management of the occupational health and safety program.

Other officers elected by the committee shall:

Assist the chairperson of the committee in directing the activities of the committee, and in the absence of the chairperson fulfill his/her responsibilities and duites.

General Duties

The (Reporting Unit, Establishment name), Executive Occupational Health and Safety Committee shall:

o Provide the Officer-in-Charge to whom they report, with:

. A continuing appraisal of the health and safety program efforts;

. Recommendations on the developments and coordination of the occupational health and safety programs; and

. Recommendations of health and safety policy.

APPENDIX 5-B - SUGGESTED POLICY AND PROCEDURES FOR THE ADMINISTRATIVE CONTROL OF AN OPERATIONAL OCCUPATIONAL HEALTH AND SAFETY COMMITTEE

Name and Objective

The name of this committee is (name of Reporting Unit or Establishment), Operational Occupational Health and Safety Committee.

The objectives of the committee are to advise and assist (name of Reporting Unit or Establishment) management officials with respect to their responsibilities under the Agency's Occupational Health and Safety programs.

The principle means for accomplishing these objectives shall be to hold meetings to:

- o Discuss accident/illness incidents;
- o Review reports of unsafe or unhealthful working conditions;
- o Seek solutions to these problems; and
- o Upon request, participate in inspections.

Membership

The Operational Occupational Health and Safety Committee shall be managed to assure the effective representation of all employees. The Committee shall consist of a representative from each of the following areas, elected or appointed, for a period of (one, one and one-half or two years).

- o Officer-in-Charge and Staff Offices
- o Management or Administrative Division
- o Employee representative(s)
- o Program Offices (one representative from each area)
- o Representative(s) from any other interested or affected employees housed in the same building.

Members of the Operational Occupational Health and Safety Committee should nominate and elect from the committee membership a chairperson and (other officers necessary for effective committee business) at their first meeting each calendar year. (Three, four, five, etc.) (a majority of committee members would be a committee of 5 - 3; 6 - 4; 7 - 4; 8 - 5; 9 - 5; etc.) of the members present shall constitute a quorum for the transaction of business.

Record of Meetings

After each meeting of the committee, the minutes should be prepared in memorandum for, containing:

o A clear identification of the organizational unit;

o The name and title of each member present; and

o The substance of discussions of health and safety problems, including any specific remedial actions recommended.

A copy of the minutes of each meeting of the Operational Occupational Health and Safety Committee shall be forwarded to the Director, Occupational Health and Safety Staff, (PM-273), Washington, DC 20460, by the Occupational Health and Safety Designee within 20 working days following the meeting. A copy of the minutes of each meeting shall be furnished to the Officer-in-Charge and to each committee member. The minutes shall be made available to any employee upon request.

Vacancy

Should a vacancy occur on the committee through resignation, transfer of responsibilities to a different program or office, or other cause, the vacancy shall be filled by holding an election or appointing a new representative from the same program area represented by the vacancy. A vacancy of an officer of the committee shall be filled by a majority vote of the quorum of committee members present.

The committee may, by a two-thirds vote of a quorum of members present, declare any elective or appointive office vacant subject to the approval of the Officer-in-Charge, on the failure of its incumbent, from inability or otherwise, to attend committee meetings, or to perform the duties of the office.

Meetings

The (name of Reporting Unit or Establishment), Operational Occupational Health and Safety Committee, shall meet at least monthly, (specific day and time), and at other times necessary to assist (name of Reporting Unit or Establishment) management officials with the resolution of reports of unsafe or unhealthful working conditions or imminent danger situations.

Duties and Responsibilities

Chairperson - The chairperson shall:

o Direct the activities of the committee in accordance with established procedures, providing leadership and coordination of all activities;

o Be empowered to appoint sub-committees as they become necessary on recommendations of committee members;

o Furnish each committee member with a list of their responsibilities and duties.

o Acknowledge reports of unsafe or unhealthful working conditions from employees and others, and keep them informed of progress or lack of progress in the resolution of the matter.

Other officers elected by the committee shall assist the chairperson of the committee in directing the activities of the committee, and in the absence of the chairperson fulfill his/her responsibilities and duties.

General Duties

The (name of Reporting Unit or Establishment), Operational Occupational Health and Safety Committee, shall:

o Participate in inspections when requested by the Officer-in-Charge or when the committee deems it necessary to effectively monitor the Agency's inspection procedures;

o Monitor findings and reports of inspections to confirm that appropriate corrective measures are implemented;

o Review and comment on standards proposed by the Agency, Reporting Unit or Establishment;

o Review internal and external evaluation reports of the occupational health and safety program and make recommendations for changes or improvements in the program;

o Monitor and recommend changes, as required, in the level of resources allocated and spent on the health and safety program;

o Review responses to reports of hazardous conditions, safety and health program deficiencies, and allegations of reprisal;

o Review and recommend changes or additions to improve protective clothing and equipment used by employees; and

o Promote health and safety training for committee members and other employees.

APPENDIX 5-C - SUGGESTED POLICY AND PROCEDURES FOR THE ADMINISTRATIVE CONTROL OF A SPECIALIZED OCCUPATIONAL HEALTH AND SAFETY COMMITTEE

Name and Objective

The title of this committee is (name of Reporting Unit or Establishment), (Toxic Substances, Radiation, Pesticides, etc.), Occupational Health and Safety Committee.

The objectives of the committee are to promote safety and health awareness connected with the special hazards, disseminate information on methods of control, and stimulate discussions of common problems and seek solutions.

Membership

The (name of committee) shall be managed to assure effective representation of affected employees. The committee shall consist of representatives from each program area with like special hazards, a supervisor or supervisors and employee representative, if appropriate. Members of the committee should elect from their membership a Chairperson and (other officials necessary) at their first meeting each Calendar Year. A majority of the members present shall constitute a quorum for transaction of business.

Record of Meetings

After each meeting of the committee, the minutes shall be prepared in memorandum form, containing:

- A clear identification of the organizational unit;
- The name and title of each member present; and
- The substance of discussions of health and safety items.

A copy of the minutes of the meeting shall be forwarded to the Director, Occupational Health and Safety Staff (PM-273), by the Occupational Health and Safety Designee within 20 working days following the meeting. A copy of the minutes of each meeting shall be forwarded to the Officer-in-Charge, each member of the committee and the chairperson of other occupational health and safety committees. Copies of the minutes shall be made available to employees upon request.

Vacancy

Should a vacancy occur on the committee for any cause, the vacancy shall be filled by either appointment or election. A vacancy of an officer of the committee shall be filled by a majority vote of the quorum of committee members present.

Meetings

The (name of committee), Specialized Occupational Health and Safety Committee shall meet (monthly, semi-monthly, quarterly, etc.), (specific day and time), and at other times necessary to assist program managers in carrying out their health and safety responsibilities.

Duties

The committee shall:

o Review and advise management on the development for standard operating procedures.

o Review and recommend specialized personal protective equipment and clothing for the unique hazards of the work.

o Recommend and promote training for committee members and other employees for the unique hazards of the work.

CHAPTER 6 - OCCUPATIONAL HEALTH AND SAFETY STANDARDS

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APPENDIX B - GENERAL REQUIREMENTS OF AN OCCUPATIONAL HEALTH AND SAFETY STANDARD

CHAPTER 6 - OCCUPATIONAL HEALTH AND SAFETY STANDARDS

1. GENERAL. Executive Order 12196 and 29 CFR 1960.16 requires the Agency to comply with all occupational health and safety standards issued under Section 6 of the Occupational Safety and Health Act of 1970, or with alternate standards issued by the Agency after consultation with employees or their representatives and approved by the Secretary of Labor. The Agency may prescribe and enforce more stringent standards than the Section 6 standards if required to protect the health and safety of its employees.

2. BACKGROUND. The overall authority for the promulgation of occupational health and safety standards issued under the Occupational Health and Safety Act rests with the Secretary of Labor as defined in Section 6. Section 19 of the Act requires that the EPA adopt and comply with health and safety standards consistent with those promulgated by the Secretary of Labor. The EPA Administrator has adopted the occupational health and safety standards contained in 29 CFR 1910 as initial Agency standards. (Appendix 6-A is a listing of all current OSHA, EPA and other Federal health and safety standards and guidelines.)

3. DEFINITIONS.

a. Standard is an occupational safety and health standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe and/or healthful employment and place of employment.

b. Affected employees means employees who would be affected by the grant or denial of a variance, limitation, variation, tolerance, or exemption, or anyone of their authorized representatives, such as their collective bargaining agent.

c. Alternate standard is a standard adopted or necessary for application to working conditions of Agency employees because no OSHA standard exists that will provide adequate protection for their health and safety.

d. Emergency standard is a standard promulgated when it is determined a condition exists that exposes workers to grave danger from toxic agents, or physical harm, or from new hazards requiring immediate regulatory control.

4. ALTERNATE STANDARDS. The Administrator may develop and apply alternate standards if OSHA standards or if other standards do not provide a sufficient level of protection necessary to assure the health and safety of Agency employees. The EPA Occupational Health and Safety Staff shall:

a. Provide an opportunity for written comment by all affected or interested Agency employees.

b. Provide for an opportunity for written comment by affected employees of one or more Federal Agencies located in the same facility.

c. Keep appropriate exclusive bargaining representatives informed of the proposed development of alternate standards.

d. Notify the Secretary of Labor regarding the development of an alternate standard and request approval of the Secretary. The request for approval shall contain:

(1) A statement of why the Agency wants to adopt an alternate standard;

(2) A description of the alternate standard;

(3) An explanation of how the alternate standard provides equivalent or greater protection for affected Agency employees;

(4) A description of the interim protective measures that will be provided Agency employees until a decision is received from the Secretary of Labor; and

(5) A summary of the written comments, if any, from interested employees, employee representatives and others.

Alternate standards should be based on research, demonstrations, and other factors which includes the latest scientific data, feasibility and experience with the Occupational Safety and Health Act and other laws. General requirements for an occupational health and safety standard are in Appendix 6-B.

Any interested Agency employee may file a written request for the promulgation, modification, or revocation of an occupational health and safety standard with the Director, Occupational Health and Safety Staff, (PM-273), 401 M Street, SW, Washington, D. C. 20460. The request should include or be accompanied by the proposed standard desired and a statement of the reasons and intended effect.

5. OTHER FEDERAL AGENCY STANDARDS. In addition to the OSHA and EPA standards there are standards affecting occupational health and safety issued by other Federal Agencies, for example,

a. Federal Aviation Administration

b. U.S. Department of Energy

c. General Services Administration

d. U.S. Department of Labor, Mine Safety and Health Administration

e. U.S. Department of Transportation

Where EPA employees and employees of other Federal agencies engage in joint operations and/or primarily report to work or carry out operations in the same facility or work activity, any alternate standards adopted by the host Agency which are more protective shall govern.

If the standards of other Federal Agencies conflict with OSHA standards, joint efforts between the Agencies involved and the Secretary of Labor shall be undertaken to resolve the conflicts. Until conflicts are resolved, EPA employees shall comply with the more protective of the standards.

6. STANDARDS APPLICATION. The effective use of occupational health and safety standards is directly related to the understanding of the meaning, intent, and application of the standard. Factors necessary for the effective use of standards are:

a. Accessibility of all standards;

b. An understanding of the scope, intent, and meaning of the requirements of the standard;

c. Correct application of the requirements of the standard to the work situation; and

d. Enforcement of standards in all areas of application with a uniform interpretation of their intent.

The Headquarters Occupational Health and Safety Staff shall take the following steps to provide all employees who use occupational health and safety standards with a clear understanding of their intent and application.

a. Develop and distribute to all users an interpretation and clarification of the intent and application of any standard which may be misunderstood.

b. Distribute directives that explain policy matters and background information dealing with particular standards.

c. Develop a comprehensive collection of standards and distribute them to all field users with an explanation of how to find and apply the various sections.

d. Present classes, seminars, and briefing sessions to Headquarters and Field Units on the substance, intent, and application of the standards.

e. Develop, distribute and brief Headquarters and Field Units on guidelines for implementing the standards.

f. Encourage field offices to communicate with the Headquarters Occupational Health and Safety Staff on standards or the development of standards. This communication will enable the Occupational Health and Safety Staff to understand any problems that may evolve during the application of a standard.

g. Advise all Field Units and offices that standards will be enforced in all areas of application with a uniform interpretation of their intent.

APPENDIX 6-A - CURRENT OCCUPATIONAL HEALTH AND SAFETY STANDARDS

The following list of laws, standards and issuances that impact occupational health and safety includes those most generally used to implement an effective program. Other references, guidelines and textbooks are available and should be used as necessary.

Laws and Executive Orders

PL 91-596	Occupational Safety and Health Act of 1970
EO 12196	Occupational Safety and Health Programs for Federal Employees

Occupational Safety and Health Administration Standards and Regulations

29 CFR 1910	General Industry Standards
29 CFR 1926	Construction Standards
29 CFR 1960	Basic Program Elements for Federal Employee Occupational Safety and Health Programs

Environmental Protection Agency Directives

1440	Occupational Health and Safety Manual
1440.2	Order - Health and Safety Requirements for Employees Engaged in Field Activities
1440.3	Order - Respiratory Protection
1440.4	Order - Health and Safety Training Requirements for Mine Safety
1440.5	Order - Qualifications and Training Requirements for Occupational Health and Safety Program Personnel
1440.6	Order - Occupant Restraint Systems

EPA Guidelines

Respiratory Protection Program Management
Chemical Protective Clothing
Eye Protection Program

Other Agency Directives that Impact Occupational Health and Safety

1000.9	Order - Policy on Smoking in EPA-Occupied Buildings
1000.18	Order - Transportation of Hazardous Materials
3100.1	Order - Uniforms, Protective Clothing and Protective Equipment
3100.3	Order - Authorization of Performance of Hazardous Duty
3120.1	Order - Conduct and Discipline
3140	Training and Development Manual
3180.1	Order - Federal Employees Compensation Program

CURRENT OCCUPATIONAL HEALTH AND SAFETY STANDARDS (CONT.)

Other Federal Agency Standards and Regulations that Impact Occupational Health and Safety

U.S. Department of Transportation - Transportation of Hazardous Materials, 49 CFR 100-177

U.S. Department of Energy - 10 CFR 0-199

U.S. Department of Labor, Mine Safety and Health Administration, 30 CFR 48

Consensus Standards Organizations

OSHA used standards developed by these organizations as a source for their standards. Complete copies of the standards developed by these organizations and referenced in the OSHA standards may be obtained from the organizations listed. OSHA standards are not necessarily based on the latest revision of a standard. Copies of the latest revision of standards and also handbooks on the standards may be obtained from the organizations listed.

Consensus Standards Organization	OSHA Standards
American Conference of Governmental Industrial Hygienists (ACGIH) 1014 Broadway Cincinnati, Ohio 45202	Subpart G - Occupational Health and Environmental Control Subpart Z - Toxic and Hazardous Substances
American National Standards Institute (ANSI) 1430 Broadway New York, N. Y. 10018	Subpart D - Walking-Working Surfaces Subpart F - Powered Platforms, Man-lifts, and Vehicle-Mounted Work Platforms Subpart G - Occupational Health and Environmental Controls Subpart H - Hazardous Materials Subpart I - Personal Protective Equipment Subpart J - General Environmental Controls Subpart M - Compressed Gas and Compressed Air Equipment Subpart N - Materials Handling and Storage Subpart O - Machinery and Machine Guarding Subpart P - Hand and Portable Powered Tools and Other Hand-Held Equipment Subpart Q - Welding, Cutting, and Brazing

CURRENT OCCUPATIONAL HEALTH AND SAFETY STANDARDS (CONT.)

Consensus Standards Organization	OSHA Standards
American National Standards Institute (ANSI) (Cont.)	Subpart R - Special Industries Subpart Z - Toxic and Hazardous Substances
American Petroleum Institute 1801 K Street, NW Washington, DC 20006	Subpart H - Hazardous Materials Subpart Q - Welding, Cutting, and Brazing
Americal Society of Agricultural Engineers 2950 Niles Road P. O. Box 229 St. Joseph, MI 49085	Subpart J - General Environmental Controls
American Society and Heating, Refrigeration, and Air Conditioning Engineeis, Inc. (ASHRAE) 345 East 47th Street New York, NY 10017	Subpart N - Materials Handling and Storage
American Society of Mechanical Engineers, Inc. United Engineering Center 345 East 47th Street New York, NY 10018	Subpart H - Hazardous Materials Subpart O - Machinery and Machinery Guarding Subpart R - Special Industries
Compressed Gas Assn., Inc. 500 Fifth Ave. New York, NY 10036	Subpart H - Hazardous Materials Subpart M - Compressed Gas and Compressed Air Equipment Subpart Q - Welding, Cutting, and Brazing
Crane Manufacturers Assn. of America, Inc. 1 Thomas Circle, NW Washington, DC 20005	Subpart N - Materials Handling and Storage
Factory Mutual Engineering Corp. P. O. Box 688 Norwood, MA 02062	Subpart D - Walking-Working Surfaces
Fertilizer Institute 1015 18th Street, NW Washington, DC 20046	Subpart H - Hazardous Materials

CURRENT OCCUPATIONAL HEALTH AND SAFETY STANDARDS (CONT.)

Consensus Standards Organization	OSHA Standards
Institute of Markers of Explosives 420 Lexington Ave. New York, NY 10017	Subpart R - Special Industries
National Association of Plumbing and Mechanical Officials 5032 Alhambra Ave. Los Angeles, CA 90032	Subpart J - General Environmental Controls
National Board of Boiler and Pressure Vessel Inspectors 1155 North High Street Columbus, OH 43201	Subpart H - Hazardous Materials
National Fire Protection Assn. (NFPA) 470 Atlantic Ave. Boston, MA 02210	Subpart E - Means of Egress Subpart G - Occupational Health and Environmental Control Subpart H - Hazardous Materials Subpart M - Compressed Gas and Compressed Air Equipment Subpart Q - Welding, Cutting, and Brazing Subpart R - Special Industries
National Plant Food Institute 1700 K Street, NW Washington, DC 20006	Subpart H - Hazardous Materials
Rubber Manufacturers Assn. 444 Madison Ave. New York, NY 10022	Subpart Q - Welding, Cutting, and Brazing
Society of Automotive Engineers 485 Lexington Ave. New York, NY 10017	Subpart N - Materials Handling and Storage
Underwriters Laboratories, Inc. (UL) 207 E. Ohio Street Chicago, IL 60611	Subpart D - Walking-Working Surfaces Subpart H - Hazardous Materials Subpart R - Special Industries

APPENDIX 6-B - GENERAL REQUIREMENTS OF AN OCCUPATIONAL HEALTH AND SAFETY STANDARDS

These are the general requirements of an occupational health and safety standard that should be considered and used, if applicable, when developing a standard.

1. Purpose

2. References

3. Definitions

4. Responsibilities

5. Handling and Storage Requirements

6. Processes

7. Methods of Compliance

   a. Engineering controls
   b. Administrative controls
   c. Personal protective equipment

8. Caution Signs and Labels

9. Housekeeping

10. Record keeping

11. Medical Examinations

    a. General
    b. Pre-employment/Pre-placement
    c. Frequency of examinations
    d. Termination of employment

12. Medical Records

    a. Maintenance
    b. Access

13. Monitoring

    a. Method(s) of measurement
    b. Maximum allowable exposure

14. Training Requirements

CHAPTER 7 - OCCUPATIONAL HEALTH AND SAFETY TRAINING

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CHAPTER 7 - OCCUPATIONAL HEALTH AND SAFETY TRAINING

1. GENERAL. Executive Order 12196 requires that the head of each Agency shall provide health and safety training for top management officials, supervisory employees, employees responsible for conducting inspections, health and safety specialist, collateral duty health and safety personnel, members of occupational health and safety committees, employee representatives, and other employees. EPA considers health and safety training an essential part of every Agency program for protecting the health and safety of its employees.

2. RESPONSIBILITIES.

a. The Agency Designated Occupational Health and Safety Official shall assure that health and safety training is provided for all Agency employees in accordance with Executive Order 12196, 29 CFR 1960, and the provisions of this Manual.

b. The Director, Occupational Health and Safety Staff, shall coordinate the Agency's occupational health and safety training programs, developing or recommending specific training courses designed to instruct Agency personnel in the identification and control of occupational illnesses and injuries, provide technical assistance and evaluate the effectiveness of health and safety training program implementation.

c. Officers-in-Charge of Reporting Units shall assure that the Agency's occupational health and safety training programs are fully implemented at the Reporting Unit and at all Establishments and Workplaces under their organizational jurisdiction.

3. TRAINING REQUIREMENTS.

a. Top Management Officials. Top management officials shall receive training in occupational health and safety which will enable them to manage the occupational health and safety programs in their areas of jurisdiction. This training shall include as a minimum:

(1) Management responsibilities and the requirements of Section 19 of the Occupational Safety and Health Act, Executive Order 12196, and 29 CFR 1960;

(2) EPA's Occupational Health and Safety Programs, and

(3) Employee rights and responsibilities.

b. Supervisors. Supervisors shall receive introductory and specialized occupational health and safety training to enable them to manage the occupational health and safety programs within their work unit to assure the safe and healthful work practices of their employees. This training shall include as a minimum instruction in the following areas:

(1) Supervisors responsibility for providing and maintaining safe and healthful working conditions for employees;

(2) EPA's Occupational Health and Safety Programs;

(3) Requirements of Section 19 of the Occupational Safety and Health Act, Executive Order 12196, and 29 CFR 1960;

(4) Applicable health and safety standards;

(5) Agency procedures for reporting and investigating accidents, illnesses, hazards, and allegations of reprisal;

(6) Recognition, evaluation and control of health and safety hazards;

(7) Supervisors responsibility for employee discipline relating to occupational health and safety contained in the EPA Order, Conduct and Discipline; and

(8) Employee rights and responsibilities.

c. Occupational Health and Safety Program Personnel.

(1) Health and Safety Specialist. EPA shall provide sufficient training to health and the safety specialist, through formal courses, laboratory experiences and field study, to enable them to meet present and future needs of the Agency's occupational health and safety programs. Training shall include as a minimum instruction in the following areas:

a) Occupational health and safety program development and management;

b) Hazard recognition, evaluation, and control;

c) Occupational health and safety standards;

d) The Agency's occupational health and safety programs;

e) Safe Design of equipment and facilities;

f) Accident and illness data analysis; and

g) Packaging, marking, labeling, transportation, and disposal of hazardous materials and substances.

(2) Health and Safety Inspectors. EPA shall provide Health and Safety Inspectors sufficient additional training to enable them to recognize and evaluate health and safety hazards, and suggest general control procedures. Training shall include as a minimum instruction in the following areas:

a) Appropriate health and safety standards;

b) Use of appropriate evaluation equipment and procedures;

c) Hazard recognition, evaluation, and control procedures; and

d) Preparation of reports and documentation.

(3) Collateral Duty Health and Safety Personnel. EPA shall provide training for collateral duty health and safety program personnel commensurate with the scope of their assigned responsiblities. Training shall include as a minimum instruction in the following areas:

a) The Agency's occupational health and safety programs;

b) Section 19 of the Occupational Safety and Health Act, Executive Order 12196, 29 CFR 1960;

c) EPA's reporting and recordkeeping procedures;

d) Evaluation and control of hazards;

e) Agency procedures for reporting and investigation of employee allegations or reprisals for exercising rights under EO 12196 and 29 CFR 1960;

f) Recognition of hazardous conditions and environments;

g) Identification and use of occupational health and safety standards; and

h) Packaging, marking, labeling, transportation and disposal of hazardous materials and substances.

(4) Health and Safety Committee Members. Health and safety committee members shall be provided training commensurate with their assigned duties. This training shall include as a minimum orientation in the following areas:

a) The Agency's occupational health and safety programs;

b) Requirements of Section 19 of the Occupational Safety and Health Act, Executive Order 12196, and 29 CFR 1960;

c) Agency procedures for reporting and investigating employee allegations of reprisals for exercising rights under EO 12196 and 29 CFR 1960.

d) Identification and use of occupational health and safety standards; and

e) Duties of the occupational health and safety committee.

(5) Employee Representatives. EPA shall provide occupational health and safety training for Agency employees who are representatives of employee groups, such as labor organizations which are recognized by the Agency. This training will enable such groups to function appropriately to ensure safe and healthful working conditions. (Nothing in this paragraph shall be construed to alter training provisions provided by law, Executive Order, or collective bargaining arrangements.) This training shall include as a minimum orientation in the following areas:

a) Duties of the occupational health and safety committee;

b) Identification and use of occupational health and safety standards;

c) Requirements of Section 19 of the Occupational Safety and Health Act, Executive Order 12196, and 29 CFR 1960; and

d) The Agency's occupational health and safety programs

(6) Employees. EPA shall provide employees health and safety training appropriate to the work they perform. This training shall include as a minimum instruction in the following areas:

a) The Agency's occupational health and safety programs;

b) Employee rights and responsibilities, and as appropriately;

c) Specialized job health and safety training, e.g.,

1) Toxic and hazardous substances;

2) CPR and First Aid;

3) Use, handling, storage, disposal and transportation of hazardous materials and substances;

4) Personal protective equipment and clothing;

5) Fire prevention, protection, and emergency procedures;

6) Materials handling and storage;

7) Machinery and machine guarding;

8) Specifications for accident prevention signs and tags;

9) Ventilation;

10) Ionizing and non-ionizing radiation;

11) Motor vehicle accident prevention and operator education;

12) Water safety, which includes diving and boating;

13) General laboratory safety;

14) Office safety;

15) Safety in underground and surface mines and on mine property; and

16) Aircraft Safety.

4. TRAINING ASSISTANCE. The implementation of the training requirements of this Chapter are not complicated or resource intensive. There are many sources of low or no cost health and safety training available. The occupational health and safety training assistance that the Department of Labor (DOL) and the National Institute of Occupational Safety and Health (NIOSH) are required to provide other Federal Agencies is defined in 29 CFR 1960.60. EPA shall use this occupational health and safety training assistance from DOL and NIOSH where appropriate to meet the Agency's occupational health and safety training needs and responsibilities. EPA shall provide its employees the specialized training required by the unique charcteristics of its work.

a. Department of Labor.

(1) The DOL will provide occupational health and safety training assistance in the following areas upon request by the Agency head and with reimbursement.

a) Orientation for the Designated Agency Occupational Health and Safety Official; and

b) Resident and field training courses to meet selected training needs of occupational health and safety specialists, occupational health and safety inspectors, and collateral duty occupational health and safety personnel.

(2) The DOL will develop, in cooperation with the Office of Personnel Management, guidelines and will provide materials for occupational health and safety training programs for high-level managers, supervisors, members of committees, and employee representatives.

b. National Institute for Occupational Safety and Health. NIOSH will provide EPA, upon request and with reimbursement, training materials, and it will conduct training programs on occupational health-related subjects.

c. Occupational Health and Safety Staff. The Occupational Health and Safety Staff (OHSS) continually evalutes both Government and commercial training programs for applicability to Agency needs. It also has training programs available for use by field units in the following areas.

(1) Motion picture films on laboratory, office, eye, fire, and electrical safety, respiratory protection and first aid.

(2) Slide-audio tape training programs on laboratory, office, off-the-job and field safety, safety inspections, and compressed gases.

(3) Training manuals with audio-visuals for persons involved in field activities and for senior managers and supervisors.

(4) A self-instruction correspondence course, which it administers, for occupational health and safety program personnel.

OHSS should be contacted for information on training resources.

5. AVAILABLE TRAINING SOURCES. The following is a list of training sources and is provided as information to Officers-in-Charge. This list does not include all training sources. Officers-in-Charge are encouraged to research other locally available training sources in the occupational health and safety field. The EPA Office of Occupational Health and Safety will assist in the evaluation of training sources upon request.

a. National Safety Council, 444 North Michigan Avenue, Chicago, Illinois 60611

b. International Safety Academy, 10575 Katy Freeway, P.O. Box 19600, Houston, Texas 77024

c. International Loss Control Institute, P.O. Box 345, Loganville, Georgia 30249

d. University of Southern California, The Safety Center, University Park, Los Angeles, California 90007

e. National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269

f. National Institute for Occupational Safety and Health, Division of Training and Manpower Development, 4676 Columbia Parkway, Cincinnati, Ohio 45226

g. DOL, Occupational Safety and Health Administration, OSHA Training Institute, 1555 Times Drive, Des Plaines, Illinois 60018

h. Local Fire Departments

i. Local safety councils

j. Local law enforcement agencies

k. Local universities and community colleges

l. State, County, and local health and safety officials

CHAPTER 8 - LABORATORY USE OF TOXIC SUBSTANCES

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CHAPTER 8 - LABORATORY USE OF TOXIC SUBSTANCES

1. POLICY AND RESPONSIBILITIES.

a. Purpose. This Chapter establishes policy, responsibilities, and procedures for the conduct of the Agency occupational health and safety program for the laboratory use of toxic substances.

b. Policy. The EPA is committed to providing safe and healthful working conditions in laboratories where toxic substances are used.

c. Background. Section 19 of the Occupational Safety and Health Act, Executive Order 12196, 29 CFR 1960 and this EPA Occupational Health and Safety Manual requires the EPA to provide safe and healthful working conditions for its employees. The EPA is responding to this requirement with this Chapter, which is an adaptation of the Department of Health and Human Services, formerly the Department of Health, Education and Welfare, "Guidelines for the Laboratory Use of Chemical Substances Posing a Potential Occupational Carcinogenic Risk, Revised Draft," March 1980. An interagency subcommittee, which included an EPA representative, developed the Guidelines. The control measures given in the Guidelines consist of the laboratory work practices and engineering controls necessary to protect laboratory workers from exposure to carcinogenic (or other highly toxic) substances. In addition, the Guidelines provide alternative control measures which are less demanding for low risk situations and more demanding for high risk situations.

(1) Basis of Guidelines. The Guidelines are based on the assumption that any exposure to a chemical carcinogen, regardless of how small, carries some risk. While complete elimination of exposures is the ideal objective, this is not obtainable in every case. However, the potential for exposures must be reduced to the lowest practicable level.

The application of these Guidelines to a specific laboratory activity must be based on the judgment of the supervisor who is responsible for the safety of his or her laboratory operations. No set of guidelines can be applied uniformly to every situation. It is imperative, therefore, that the supervisor assess those variables peculiar to each planned activity in establishing appropriate safeguards. Variables that require specific attention include (i) quantity of the toxic substance to be used, (ii) physical and chemical properties of the agent, (iii) toxicity and (iv) the type of experimental procedures in which the toxic substances will be used.

(2) Substances Considered Toxic. Appendix 8-A presents the substances considered toxic for this Occupational Health and Safety Manual. It consists of separate parts for substances exhibiting chronic (a list) and acute (selection criteria) toxicity. The ultimate criteria for

classifying a substance toxic for this Manual is whether the substance poses a high risk of impairing the health of laboratory employees. Since persons in addition to the Director, Occupational Health and Safety Staff (OHSS), may be making this determination, the Manual includes the sources of the lists and selection criteria comprising Appendix 8-A for reference. The lists, which may be added to locally, will be updated by the Director, OHSS, at least annually, and will include OSHA's list of carcinogens upon publication.

d. Responsibilities.

(1) Program Management.

(a) Administrator. The Administrator is responsible for developing, implementing, and evaluating the Agency's occupational health and safety programs for the laboratory use of toxic substances in accordance with the requirements of Section 19 of the Occupational Safety and health Act, Executive Order 12196, and the basic program elements in 29 CFR 1960, or approved alternate program elements.

(b) Assistant Administrator for Administration and Resources Management. The Assistant Administrator for Administration and Resources Management, as the Designated Agency Occupational Health and Safety Official, is responsible for establishing Agency occupational health and safety policies, programs, standards, goals, objectives, and priorities, and for establishing an organization, including the designation of safety and health officials at appropriate levels, with adequate budget and staff to implement occupational health and safety programs for the laboratory use of toxic substances at all EPA operational levels.

(c) Director, Occupational Health and Safety Staff (OHSS). The Director, OHSS, under the supervision of the Director, Office of Administration, is responsible for: developing Agency occupational health and safety policies, programs, standards, goals, objectives; evaluating the effectiveness of the Agency's occupational health and safety programs for the laboratory use of toxic substances at all operational levels; and providing technical support to the Agency's occupational health and safety programs for the laboratory use of toxic substances. The Director, OHSS, is the top technical advisor for EPA on health and safety for laboratory use of toxic substances.

(2) Program Implementation.

(a) Officers-in-Charge (OICs) of Reporting Units, Establishments and Workplaces. The OICs are responsible for the implementation of the Agency's occupational health and safety programs for the laboratory use of toxic substances at their Reporting Unit, Establishment or Workplace. The OIC is charged with assuring that any laboratory supervisor using toxic substances is qualified by training or experience, has the equipment

and facilities to handle the materials safely, and proposes a use which is safe to all concerned. The OIC is responsible for assuring the completion of semiannual program reviews and audits.

(b) Safety Committee (SC). The SC is responsible for aiding and advising the OIC on employee health and safety matters and policies and procedures for the Agency occupational health and safety program for handling toxic substances in the laboratory. (See EPA Occupational Health and Safety Manual, Chapter 5, paragraph 6.b. for a detailed description of the SC's health and safety responsibilities.) SC's should review and approve Safety Plans prepared by each supervisor and forward them to the Occupational Health and Safety Designee. The SC should also advise the OIC on specific programs for Health Surveillance.

(The Safety Committee should include, or have access to, individuals who possess expertise in chemistry, toxicology, medicine, engineering and laboratory safety.)

(c) Occupational Health and Safety Designees (OHSD's). The OHSD's at all operational levels are responsible for assisting the Officers-in-Charge of their Reporting Units, Establishments, or Workplaces in: managing, developing, organizing, directing, and evaluating the occupational health and safety programs and injury reporting and record-keeping requirements; analyzing accidents and injuries for prevention and control; and providing technical advice to management officials in the implementation of program policy and standards.

OHSD's must have either background and training in recognizing, evaluating, and controlling hazards from laboratory use of toxic substances or access to this expertise. OHSD's must maintain inventory records for substances considered toxic for this Manual.

(d) Laboratory Health Officers. Laboratory Health Officers are responsible for providing technical support to the OHSD. (Laboratory Health Officers are laboratory-based personnel who have expertise in the health effects and chemical hazards related to laboratory operations; they are officially appointed by the Officer-in-Charge; and they functionally report to the OHSD.)

(e) Supervisor.

The Supervisor has the primary responsibility for:

1 Selecting work practices and engineering controls for handling toxic substances;

2 Preparing a Safety Plan prior to use of toxic substances. (See Appendix 8-B for details of the Safety Plan.);

3 Submitting the Safety Plan to the Safety Committee for their review and approval;

4 Making copies of the approved Safety Plan available to program and support staff;

5 Assuring that the program and support staff (including maintenance and housekeeping personnel) are instructed and trained in the laboratory practices and engineering controls required to ensure safety and in planned procedures for dealing with accidents involving toxic substances, and are informed of the potential hazards associated with the proposed use of toxic substances;

6 Supervising the safety performance of the staff to ensure that the required laboratory practices and engineering controls are employed;

7 Arranging for immediate medical attention and reporting to the OHSD any accident that results in a inoculation of toxic substances through cutaneous penetration, b ingestion of toxic substances, c probable inhalation of toxic substances, or d any incident causing overt exposure to personnel or danger of environmental contamination by toxic substances;

8 Cooperating in the occupational medical surveillance program;

9 Assisting the OHSD in investigating accidents;

10 Investigating and reporting in writing to the OHSD any problem pertaining to operation and implementation of laboratory practices and engineering controls; and

11 Correcting work errors and conditions that may result in the release of toxic substances.

(f) Employees. Each employee is responsible for complying with the health and safety program for the laboratory use of toxic substances established by this Manual. Each employee shall report to his/her supervisor or the OHSD any unsafe condition and all facts pertaining to accidents which resulted in employee exposure to toxic substances.

(g) Other Responsibilities. The individuals specified above and other individuals have responsibilities for this program which are described in relevant sections of the balance of this Chapter.

2. HEALTH AND SAFETY PROGRAM REQUIREMENTS.

a. Safety Manual. The OIC must ensure that the safety program

covering the laboratories within his/her Reporting Unit, Establishment, or Workplace is documented by a safety manual. The OIC must make the Safety Manual available for distribution, provide a copy to each employee using toxic substances, and forward an information copy to the Director, OHSS.

b. Safety Plan. The Supervisor must prepare, and obtain approval of, a Safety Plan (Appendix 8-B) before using a toxic substance. The Laboratory Safety Committee, or similar group set up for this purpose, must review the Safety Plan and forward it to the OHSD with comments. The OHSD and the OIC must approve the Safety Plan before the toxic substance can be used. The OHSD must maintain the Safety Plan on file and make it available for distribution, provide a copy to each employee using the toxic substance, and forward an information copy to the Director, OHSS. The supervisor may prepare, and obtain prior approval of, generic safety plans to cover groups of toxic substances which pose similar occupational hazards.

c. Audit. The OIC must ensure that semi-annual program reviews, including inspections, of the health and safety program for laboratory use of toxic substances are conducted by persons with appropriate background and training, and that any deficiencies are corrected as soon as possible (or immediately if the deficiency is an imminent hazard). The OIC must forward a copy of the program review and abatement actions to the Director, OHSS, for review. The Director, OHSS, may conduct independent audits.

d. Accident Reporting. The OHSD must coordinate the reporting of any accident involving exposure (inoculation, ingestion, dermal contact, inhalation) to a toxic substance in accordance with the procedures detailed in Chapter 3 of the Occupational Health and Safety Manual. In addition, the OHSD must forward a copy of this type of accident report to the employee's medical record (see 2.g.(3)).

e. Training. The OIC must ensure that all employees, before using toxic substances in the laboratory, receive a minimum of 24 hours of training on the safe handling of toxic substances in the laboratory (followed by 4 hour refresher courses annually) and receive training specific to the hazards (including emergencies) of a specific operation before conducting that operation. The OHSD must obtain the approval of the Director, OHSS, for the initial 24 hour and annual 4 hour courses and must issue a certificate to employees upon completion of the courses.

The training courses must be supplemented by on-the-job training. The OIC must ensure that the supervisor, OHSD, or other persons qualified by training and experience will periodically apprise laboratory and other involved workers, for example, those involved in housekeeping or maintenance work, about (1) the possible sources of exposure, (2) adverse health effects (including chronic effects such as cancer) associated with exposure, (3) work practice and engineering controls in use and being

planned to limit exposure, (4) environmental and medical monitoring procedures used to check on control procedures and on the health status of employees, and (5) their responsibilities for following proper work practices to help protect their health and provide for the safety of themselves and fellow employees. The trainers should also explain: the types and functions of monitoring equipment, such as personal samplers, so that each employee understands his or her part in environmental monitoring; medical monitoring procedures, especially any unusual procedures such a sputum cytology or biologic monitoring of metabolites in the urine; and the benefits to workers of participating in these environmental and medical monitoring procedures.

The OHSD must keep the Safety Plan, safety data sheets, and other appropriate written information describing the relevant toxic, physical, and chemical properties of toxic substances used or stored in the laboratory, in a file that is continuously and readily available to employees.

In addition, the OIC must ensure that employees identified to respond to emergencies involving toxic substances receive additional training, repeated at least annually, which includes directing general evacuation, decontamination of uncontrolled releases of toxic substances, maintaining a respirator program at least equivalent to 29 CFR 1910.134, using other personal protective equipment, and first aid and CPR.

f. Emergency Procedures. The OHSD must develop procedures to protect personnel in case of emergencies involving toxic substances in the laboratory. The emergency procedures should include: notifying emergency and other affected personnel; designating the containment area; decontamination procedures; a general evacuation plan; local emergency departments and local Poison Control Centers' locations, phone numbers, and contacts; and should be conspicuously posted and tested with drills at least semi-annually.

g. Medical Surveillance.

(1) Pre-assignment Health Assessment. The OIC must ensure that a baseline health assessment is provided to all employees who work with toxic substances or who are assigned duties in work areas where toxic substances are regularly used. These health assessments are to be provided under the EPA Medical Monitoring Guidelines and must be included in position descriptions for new assignments. The OIC, after consultation withan occupational physician, the OHSD, and the medical monitoring coordinator, must also determine the necessity of providing pre-assignment health assessments for employees who may be assigned duties in work areas where small quantities of toxic substances are infrequently used.

The purpose of this pre-assignment assessment is to establish a baseline health record and if evidence of predisposing conditions is found, to

inform and counsel the employee concerning the inadvisability of working in areas where toxic substances are used. The pre-assignment assessment will include a work history, a medical history, and a physical examination, which includes customary laboratory studies and agent-specific studies when appropriate.

(2) Periodic Health Assessments. The OIC must ensure that periodic health assessments are provided to all employees who work with toxic substances or who are assigned duties in work areas where toxic substances are regularly used. The periodicity and content of these assessments must be determined by the OIC after consultation with an occupational physician, the OHSD, the medical monitoring coordinator, and the supervisor.

The assessments will include an updating of the employee's work and medical histories, including occurrences of any accidental exposures previously unreported. The following information must be included in the employee's medical record: names of toxic substances to which the employees may have been exposed, information on the probability, frequency, and extent of exposures, and any environmental measurements relating to toxic substances that may have been made. The periodic health assessment may also include a physical examination, biochemical or other surveillance of body fluids, and an evaluation of pertinent functional systems of the body. (See Appendix 8-C.) The medical monitoring coordinator at each location is responsible for requesting and helping to schedule examinations and, assisted by the OHSD, must furnish to employees, prior to each examination, exposure and environmental monitoring data as specified above for inclusion in their medical records.

(3) Records. The records must be maintained in the local custody of the examining physician. Access must be limited to the custodian or duly appointed officials. A copy of these records may be maintained in the Agency Occupational Health and Safety Office. These must be maintained in locked cabinets with access limited to the Director or to authorized personnel.

Upon an employee's death, retirement, resignation, or other termination of Government service, the records must be forwarded to the U.S. Office of Personnel Management or Public Health Service Commissioned Officer, Department of Personnel, for inclusion with the Official Personnel Records and the custody thereof will fall to the custodian of such records.

Medical information about an applicant, employee or annuitant must not be made available to the public. (See EPA Medical Monitoring Program Guidelines, established by the OHSS, for details of the Medical Monitoring Program recording requirements.)

3. WORK PRACTICE AND ENGINEERING CONTROLS. The work practice and engineering controls specified in this section must be used by all laboratories in which work involving toxic substances is carried out

regularly. Paragraph 5 of this Chapter describes work practice and engineering controls for situations where either more or less stringent safeguards should be considered in providing protection to the laboratory worker.

a. Chemical Control Procedures.

(1) "Cradle-to-Grave"
purchase requisitions for toxic substances. The OIC, after consulting the OHSD, may add to the list of toxic substances presented in Appendix 8-A for his/her reporting unit. The OHSD subsequently monitors and records the receipt, transport, storage, use (including a list of personnel authorized to use) and disposal of the toxic substances. The OHSD must update the inventory at lease semi-annually. Also, the OHSD must obtain, maintain, and distribute safety data sheets and other information needed to use toxic substances safely. The OHSD may request technical support from the Director, OHSS, in obtaining this information.

(2) Storage Inventory and Identification. Stock quantities of toxic substances must be stored in a specific area that is secured at all times. The storage area must be posted with a sign bearing the legend: CAUTION-TOXIC SUBSTANCE Authorized Persons Only. Supervisors must maintain inventory records of stock quantities of toxic substances they are individually responsible for and must provide copies to the OHSD. The inventory records must include the quantities of toxic substances acquired and dates of acquisition and disposition. Storage vessels containing stock quantities must be labeled: CAUTION-TOXIC SUBSTANCE. Additional storage precautions may be required for compounds having other properties, such as flammability, radioactivity, etc.

(3) Working Quantities. Quantities of toxic substances present in the work area must not exceed the amounts required for use in one week. This does not include amounts stored in a specific toxic substance storage area or cabinet that is located within the laboratory work area. Storage vessels containing working quantities must be labeled: CAUTION-TOXIC SUBSTANCE.

(4) Decontamination. Contaminated materials must either be decontaminated by procedures that decompose the toxic substance to produce a safe product or be removed for subsequent disposal. Toxic substances which have spilled out of a primary container so as to constitute a hazard must be inactivated *in situ* or must be absorbed by appropriate means for subsequent disposal. Adequacy of clean-up must be tested using, for instance, wipe-test or fluorescence tests.

(5) Laboratory Transport. Storage vessels containing toxic substances must be placed first in an unbreakable outer container before being transported to laboratory work areas using good transfer practices.

Plastic coated glass bottles with polypropylene caps, which can satisfy a 4-foot drop test, are currently available which can serve as both the storage vessel and the unbreakable outer container combined. Contaminated materials which are transferred from work areas to disposal areas must first be placed in a closed plastic bag or other suitable impermeable and sealed primary container. The primary container must be placed in a durable outer container before being transported. The outer container must be labeled with both the name of the toxic substance and the warning: CAUTION-TOXIC SUBSTANCE.

(6) Packaging and Shipping. Toxic substances must be packaged to withstand shocks, pressure changes, and any other conditions which might cause leakage of contents incident to ordinary handling during transportation. Shipments must be in accordance with Department of Transportation (DOT) regulations and EPA Order 1000.18, Transportation of Hazardous Materials. (See Appendix 8-F for specific packaging and shipping guidance reference.)

(7) Disposal. Prior to the start of any laboratory activity involving a toxic substance, plans for the handling and ultimate disposal of contaminated wastes and surplus amounts of the toxic substance must be completed. The supervisor and OHSD should jointly determine the best methods available that are in compliance with Federal, State and local codes and ordinances.

b. Operational Practices.

(1) Work Area Identification. Entrances to all work areas, where toxic substances are being used or stored, must be posted with signs bearing the legend: "CAUTION - TOXIC SUBSTANCE - Authorized Persons Only," followed by name of supervisor.

(2) Access Control. Work areas, where toxic substances are being used or stored, must be entered only by persons authorized by the supervisor. Access doors to work areas must be kept closed while experiments involving toxic substances are in progress.

(3) Work Surfaces. All work surfaces (bench tops, hood floors, etc.) on which toxic substances are used must be covered with stainless steel or plastic trays, dry absorbent plastic backed paper or other impervious material. The protective surfaces must be examined for possible contamination immediately after each procedure involving toxic substances has been completed. Contaminated surfaces must be decontaminated or disposed of as appropriate.

(4) Use of Analytical Instrumentation. Vapors or aerosols produced by analytical instruments, when used with toxic substances, must be captured through local exhaust ventilation at the site of their production. The instruments may be placed entirely within a laboratory

fume hood if this will not impair hood performance (i.e., toward the back and raised on legs to minimize turbulence of inflowing air). When a sample is removed from the analytical instrument, it should be placed in a tightly stoppered sample tube or otherwise safeguarded from contaminating the laboratory. In the event that the analytical equipment becomes contaminated, it must be labeled "CAUTION - TOXIC SUBSTANCE" until it has been completely decontaminated. This operational practice applies to analytical equipment even when only infrequently used for toxic substances.

(5) Use of Primary Containment Equipment. Procedures involving volatile toxic substances and those involving solid or liquid toxic substances that may result in the generation of aerosols must be conducted in a laboratory fume hood, a glove box, or other containment equipment approved for toxic substances by the OHSD. (Personnel protection factors for Class II biological safety cabinets have not yet been established; however, when installed with total exhaust, these devices are currently acceptable for procedures involving toxic substances.) Examples of aerosol producing procedures are: the opening of closed vessels, transfer operations, weighing, preparation of feed mixtures and the application, injection or intubation of a toxic substance into experimental animals. Tissue culture and other biological procedures involving small quantities of toxic substances may be conducted in a Class II Type A or B biological safety cabinet. The selection and use of a Class II biological safety cabinet for procedures involving toxic substances must be a joint decision of the supervisor and the OHSD. Primary containment equipment used for containment of toxic substances must display a label bearing the legend: CAUTION - TOXIC SUBSTANCE. All bidding documents and installation plans for primary containment equipment must be reviewed by the Facilities Engineering and Real Property Management Branch prior to procurement. (See Appendix 8-D for additional information on primary containment equipment.)

(6) Protection of Vacuum Lines. Each vacuum service, including water aspirators, must be protected with an absorbent or liquid trap and a High Efficiency Particulate Aerosal (HEPA) filter to prevent entry of any separate vacuum pump or other device place in a laboratory fume hood approved for toxic substances must be used.

c. Personal Protective Equipment.

(1) Protective Clothing. Protective clothing such as a fully fastened laboratory coat or a disposable jumpsuit must be worn in any work area in which toxic substances are being used. Clean clothing must be provided weekly and must not be worn outside the work area. Clothing contaminated by toxic substances must be decontaminated or disposed of immediately after an obvious exposure. Contaminated clothing must not be sent to the laundry until decontaminated. (See 3.a.(4) for decontamination procedure.) Gloves which are appropriate to the specific situation must

be used when handling toxic substances. Disposable gloves must be discarded after each use and immediately after known contact with a toxic substance. Acquisition of protective clothing and equipment must be in accordance with EPA Order 3100.1, Uniforms, Protective Clothing and Protective Equipment.

(2) Eye Protection. Devices to provide appropriate eye protection must be worn in any laboratory work and should meet ANSI Z87.1,"Practice for Occupational and Educational Eye and Face Protection" and the requirements in EPA's Eye Protection Program Guideline.

(3) Use of Respirators as Personal Protective Devices. A respirator use program must be provided for emergency and maintenance personnel who enter areas where a potential for inhalation exposure to a toxic substance is present. This program must meet the requirements of the OSHA General Industry Standards for respiratory protection as detailed in 29 CFR 1910.134. The respirators must be certified in accordance with the requirements of the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR Part 11. The selection and use of respirators must be approved by the OHSD.

d. Work Practices.

(1) Housekeeping. General housekeeping procedures which suppress the formation of aerosols, such as the use of a wet mop or a vacuum cleaner equipped with a HEPA filter to remove particulates, must be used.

Dry sweeping and dry mopping are prohibited because of the hazard of aerosol formation. Training of personnel in appropriate cleaning techniques to avoid or minimize exposure is the responsibility of the supervisor. In those instances where the toxic substance or contaminated material is spilled, special procedures developed for the individual compounds must be followed. (See 2.b.)

(2) Eating, Drinking and Smoking. There must be no eating, drinking, smoking, chewing of gum or tobacco, application of cosmetics or storage of utensils, food or food containers in any laboratory area.

(3) Pipetting. Mechanical pipetting aids must be used for all pipetting procedures. Oral pipetting is prohibited.

(4) Personal Hygiene. All personnel must wash hands immediately after completion of any procedures in which toxic substances have been used. Immediately after an obvious exposure to toxic substances, personnel must wash or shower the affected area.

e. Facility Recommendations.

(1) Handwashing Facility. A handwashing facility must be available within the work area. (This need not be a facility used exclusively for

handwashing.) The use of liquid soap is recommended. In new facilities, foot or elbow operated faucets should be provided.

(2) Shower Facility. A shower facility, other than emergency drench showers, must be located in the building in which toxic substances are used. The shower facility must be available at all times.

(3) Eye Wash Facility. An emergency eye wash facility must be located in each laboratory. It should be designed to wash both eyes at the same time with a continuous stream of potable water.

(4) Exhaust Air from Primary Containment Equipment. The exhaust air from glove boxes must be treated by filtration, reaction, absorption, adsorption, electrostatic precipitation or incineration. The need for, and type of, treatment for other primary containment equipment, including laboratory fume hoods and biological safety cabinets, must be determined by the OSHD in consultation with the supervisor. Exhaust air treatment systems that remove toxic substances from the exhaust air by collection mechanisms such as filtration, absorption and adsorption must be serviced in a manner that avoids direct contact with the collection medium. (Trained maintenance employees may remove the spent collection medium using a bag in-bag out collection system or using appropriate personal protective clothing and equipment.) All exhaust air from primary containment equipment must be discharged by roof mounted blowers to the outdoors so that it is dispersed clear of occupied buildings and air intakes.

(5) Exhaust Ventilation. A mechanical exhaust ventilation system must be provided for controlling laboratory room air movement. The movement of air must be from areas of lower contamination potential to areas of higher contamination potential (i.e. from entry corridors to the laboratory). All air from laboratories must be exhausted outdoors and not recirculated. However, non-contaminated air within individual laboratories may be reconditioned. The exhaust air from laboratory areas must be discharged outdoors in a way that entry into a building's air supply is minimized. Exhaust air from laboratory areas which is not derived from primary containment equipment can be discharged to the outdoors without being treated.

4. ADDITIONAL REQUIREMENTS FOR ANIMAL EXPERIMENTATION INVOLVING TOXIC SUBSTANCES. The work practice and engineering controls specified in paragraph 3 apply to animal experimentation when toxic substances are used. Additionally, animal care personnel must wear a completely closed jumpsuit or a complete clothing change and laboratory-issue shoes or booties, head cover and gloves. Clean clothing must be provided daily. Animal care personnel engaged in procedures where exposure to airborne particulates contaminated with toxic substances could occur must use appropriate respiratory protection. The selection and use of an appropriate respirator must be approved by the OHSD. The face mask or respirator must not be worn outside the animal room. Used filters must be disposed

of and the respirator housing must be decontaminated daily, and the respirator must be stored in a clean location. Personnel required to wear a respirator must shower after completion of procedures that may result in the creation of airborne contamination in the animal room.

Experimental animals must be housed in cage systems that confine feed, feces, urine and bedding within the enclosure. When using a volatile toxic substance the cage will be appropriately sealed or ventilated to prevent evolution of contaminants. Alternative animal housing methods must be approved by the OHSD.

The Safety Plan prepared for animal studies must include descriptions of the proposed animal housing methods, safeguards appropriate for dose preparation and challenge procedures, procedures for bulk storage and disbursement of test material, waste management practices, and personnel protection requirements. An operations manual must be prepared for facilities in which large-scale animal studies and inhalation challenge studies are conducted. Equipment use procedures for all inhalation challenge studies must be described in detail.

All animal use must comply with the Animal Welfare Act, Public Law 89-544, 1966, amended in 1970 and 1976 (P.L. 91-579 and P.L. 94-279) and must conform with the Guide for the Care and Use of Laboratory Animals, DHEW No. 78-23, revised 1978 or succeeding editions.

5. SITUATIONS REQUIRING SPECIAL CONSIDERATION. The purpose of this section is generally to describe situations involving toxic substances where either more or less stringent safeguards might be considered in providing protection to the laboratory worker. (No specific definitions for such situations can be provided; an attempt to do so would be misleading.) Any modification to the laboratory practices and engineering controls described in paragraph 3 should be carefully considered and reviewed by the supervisor, the OHSD, and the SC.

The hazard in working with toxic substances is a function of the exposure potential and the toxicity. The risk of exposure to a toxic substance is related, among other things, to the quantity and physical properties of material used and the nature, frequency, and complexity of the experimental procedure. There is a greater risk of exposure when working with 100 milligrams of material than with 1 microgram of material. Similarly the potential for exposure is greater during blending, preparation of dry feed mixture or the manipulation of powders than during the preparation of aliquots of stock solutions. The toxicity and carcinogenic potency are also important factors in the selection of safeguards. For example, experimental data suggests that the carcinogenic potency of aflatoxin B1 is magnitudes greater than that of chloroform.

a. Low Risk Situations. Infrequent use of small quantities of toxic substances presents a low risk situation. An infrequent or incidental user can be described as a person who uses only a small quantity of material on an infrequent basis. Such users may include individuals involved in microbial or tissue culture test procedures, persons using small quantities of chloroform for the inactivation of microorganisms, and the users of o-tolidine (3,3' -Dimethylbenzidine) test papers.

Safety during these operations can normally be achieved by strict adherence to good laboratory practice. The laboratory worker must not eat, drink, smoke, chew gum or tobacco, apply cosmetics or store food in areas where the toxic substances are used or stored. Hands should be washed following the completion of a procedure in which toxic substances are used. The laboratory workers should develop the habit of keeping hands away from mouth, nose, eyes, and face. A fully fastened laboratory coat and gloves should be worn when handling toxic substances. Mechanical pipetting aids must be used for all pipetting procedures. Laboratory workers should receive periodic laboratory safety training.

The preparation of dilute solutions or the removal of small amounts of a toxic substance from stock quantities should always be performed within a laboratory fume hood or glove box. The work surfaces of the hood should be covered with stainless steel or plastic trays, dry absorbent plastic backed paper or other impervious material.

Stock quantities of toxic substances should be the minimum quantity required for efficient use; the primary container should be stored in an unbreakable outer container. Plastic coated glass bottles with polypropylene caps, which can satisfy a 4-foot drop test, may be used in lieu of both containers. The outer container should be labeled with a sign bearing the legend: CAUTION - TOXIC SUBSTANCE. The stock quantities should be maintained in a secured and posted storage area when not is use. Requirements for decontamination and disposal specified in paragraph 3 apply to this category of user.

b. Higher Risk Situations. More stringent safeguards may be required for certain research investigations that present higher risk situations than those subject to the general requirements. More stringent requirements may also be required for research activities that involve highly potent toxic substances. The toxic substances and laboratory activities for which additional controls will be required must be determined on a case by case basis by the OIC in consultation with the SC and OHSD.

Work practice and engineering controls that may be required to augment the general requirements include: additional or more frequent changes of protective clothing, increased showering frequency, shower facility and change room requirements, use of primary containment devices, work area access control, impervious floors for easy decontamination and monitoring for environmental contamination resulting from certain laboratory activities.

Personnel may be required in some instances to wear full protective clothing such as pants and shirts or jumpsuits, shoes, or boots and head covers and to shower after each exit from the work area.

Laboratory activities that involve high risk procedures with a known potent toxic substance may be restricted to either a glove box or other completely closed containment system. Work areas may be required to be separated by a controlled access area from areas that are open to unrestricted traffic flow. This controlled access area may be an anteroom, a change room, an air lock or any other door arrangement that separates the laboratory from areas of unrestricted traffic flow. A specially designed "Containment Area" consisting of a Special Handling Room with adjoining laboratory work area, change rooms, shower and toilet facilities and an air lock may be required for the highest risk situations. (See Appendix 8-E - Secondary Containment Facilities for Higher Risk Situations.)

Environmental monitoring may be required in work areas where the potential of exposure to a known potent toxic substance is great. An example of such an area might be a dry feed mixing operation where a large amount of the toxic substance is being handled in an activity that can produce significant amounts of aerosol.

Additional controls for the safe use of a particular compound must be specifically identified in the Safety Plan (Appendix 8-B) for its use.

APPENDIX A - TOXIC SUBSTANCES LIST

Chronic - This will be a listing of established carcinogenic agents. The Carcinogen Assessment Group (CAG) listing will be used for the first list.

Acute - This will be a listing of chemicals meeting the following criteria:

ACUTE TOXICITY

Dosage Method	Type of Measure	Value of Toxicity
Oral	LD50	Up to and including 50 mg/kg
Inhalation	LC50	Up to and including 0.2 mg/l (200 mg/m^3)
Dermal	LD50	Up to and including 200 mg/kg

Adapted from 40 CFR 162.

A list of 927 substances meeting the above criteria was generated by searching the current NIOSH Registry of Toxic Effects of Chemical Substances (RTECS). (If you would like copies of the proposed initial lists, contact the Industrial Hygiene Programs Manager at FTS 382-3640.)

APPENDIX B - SAFETY PLAN

Assistance in preparing the safety plan can be obtained from

OHSD _____ located in Room _____ of Building _____

or by telephoning _____

USE CATEGORY

Regular User _____ Infrequent User _____

REVIEW

Safety Committee Chairperson _____

APPROVALS

Supervisor _____

OHSD _____

OIC _____

SUPERVISOR _____

Laboratory or Branch _____

Building _____

Room _____

Phone _____

DATE OF PHONE PREPARATION _____

TOXIC SUBSTANCE

Name _____ CAS No. _____

Synonyms _____

Safety Data Sheet Available Yes ___ No ___

Location of Use _____

Type of Use _____

Location of Storage _____

Inventory Data

Date Toxic Substance Ordered or Synthesized _____

Quantity _____

Period of Use _____

HAZARD ASSESSMENT (toxic and pharmacologic effects, reactivity, stability flammability, and operational concerns - weighing, mixing, etc.):

_____

_____

_____

_____

_____

MONITORING PROCEDURES (If required by the OHSD)

Medical surveillance procedures for evidence of personal exposure:

_____

_____

_____

_____

Personnel monitoring procedures:

_____

_____

_____

_____

Surveillance procedures for environmental contamination:

_____

_____

_____

_____

DECONTAMINATION AND DISPOSAL

Decontamination Procedures (contaminated: surfaces, materials, instruments, equipment, etc.):

_____

_____

_____

_____

Disposal Procedures (wastes and unused stock):

_____

_____

_____

_____

EMERGENCY PROCEDURES

In event of overt personnel exposure (inhalation, ingestion, inoculation):

_____

_____

_____

_____

In event of environmental contamination (spill):

_____

_____

_____

_____

PERSONNEL POTENTIALLY EXPOSED TO TOXIC SUBSTANCE

Personnel Authorized to Use Toxic Substance

1. _____
2. _____
3. _____
4. _____
5. _____

Other Personnel Assigned to Locations Where Toxic Substance is Used

1. _____
2. _____
3. _____
4. _____
5. _____

ALTERNATIVE WORK PRACTICE AND ENGINEERING CONTROLS

(Describe alternative controls not specified in this Manual for the Laboratory Use of Toxic Substances. Indicate controls specified in the Manual for which proposed alternative controls will serve as substitute methods.)

_____

_____

_____

SAFE PRACTICES FOR ANIMAL EXPERIMENTATION

Personnel Protective Equipment (gloves, respirator, approved clothing, booties, goggles, etc.):

_____

_____

_____

_____

Animal Care and Housing Requirements (containment cages, exposure procedures, bedding change, dose preparation, cage cleaning, waste handling methods):

_____

_____

_____

_____

Facility Operational Procedures (access control, traffic patterns, decontamination procedures, waste management, species isolation requirements):

_____

_____

_____

_____

_____

_____

APPROPRIATE LITERATURE CITATIONS

APPENDIX C - PERIODIC HEALTH ASSESSMENT

(ADAPTED FROM DHHS GUIDELINES)

The nature of a program for providing periodic health assessments is complicated by several factors. Among these are (1) many laboratory workers handle a variety of toxic substances so that the medical surveillance should ideally seek evidence of adverse effects from all these substances, (2) some toxic substances cause cancer but have little or no toxicity other than the production of neoplasms, and most tumors do not become evident until many years (often 20-30) after the initiating events.

Medical monitoring will, therefore, sometimes for necessity and more often for efficiency, usually concentrate on events likely to precede overt evidence of serious health effects such as tumorigenesis. For example, some carcinogens, such as dimethylnitrosamine, have high acute toxicity, especially to the liver, and evidence of such actute toxicity can be obtained within a few hours or days following exposure. Some tumors, such as those liver cells, usually detectable by clinical tests. Others, e.g., angiosarcomas induced by such substances as vinyl chloride, will often cause detectable cell changes in nearby tissue as the probable result of space occupation. It should be noted that detection of such toxic changes does not necessarily presage tumor development, but should nevertheless precipitate the institution if corrective work practices and improved engineering controls. The occupational physician, to be effective, must have relevant information such as mode and mechanism of toxic action, freqeuncy and severity of exposure, and exposure concentration, if known. Some of this information will be available in individual safety data sheets. However, this information should be supplemented by the supervisor when appropriate.

Biologic monitoring will sometimes be a useful method of detecting exposure and perhaps, of estimating the degree of exposure. Biologic monitoring usually involves the analysis of body fluid or excreta (usually urine, sometimes blood, rarely expired air) for the toxic substance or a biotransformation product. An example is the detection of reaction products of biphenyl amines in the urines of persons absorbing benzidine or its derivatives. Even if exposure cannot be quantitated, as is sometimes the case, the mere detection of the metabolite, if its presence is specific to the individual toxic substance or class, is sufficient to indicate the need for corrective action.

In some cases, especially with some less well known carcinogens, those in the research laboratory will be better informed on possible biologic monitoring procedures than will the occupational physician. In such cases, the investigators should discuss the possibilities with the occupational physician. It may also be that specialized analytical procedures and equipment will be needed for some of this monitoring, procedures and equipment that may not be available to the medical laboratory but when are

available in the research laboratory. The investigators should undertake such monitoring procedures themselves only with prior approval by and participation of the occupational physician. This is to ensure that appropriate precautions will be taken; such as (1) precautions necessary to data interpretation, such as standard corrections for dilution of urine, (2) precautions for the individual, such as assurance that invasive procedures will not be used, and (3) precautions for the individual's privacy, such as maintenance of appropriate security for individual records.

APPENDIX D - PRIMARY CONTAINMENT EQUIPMENT

1. PURPOSE. The purpose of primary containment equipment is to protect the laboratory worker from exposure to vapors or aerosols of hazardous materials that may be released by procedures performed within the equipment. Primary containment equipment that is properly designed, located, maintained, and operated can prevent or minimize the escape of hazardous materials from the equipment into the laboratory. The laboratory fume hood, the glove box, and the biological safety cabinet are the principal primary containment equipment upon which laboratory workers depend for their protection while working with toxic substances.

2. LABORATORY FUME HOOD. The laboratory fume hood (a Class I device) is the primary hazard control device that laboratory workers depend upon for their protection while working with toxic or other hazardous materials. If designed, installed, operated, and maintained properly, the laboratory fume hood will provide personnel with a high degree of protection and allow the user to safely work with a wide range of potentially hazardous materials.

a. Hood Function. The purpose of a laboratory fume hood is to prevent or minimize the escape of contaminants from the hood into the laboratory. This is accomplished by drawing air past the operator through the zone of contaminant generation, and into the hood.

b. Conditions Affecting Hood Performance. The ability of a laboratory hood to control contaminants generated in the hood will depend on many factors. Of prime concern are the control velocity at the hood face, air movement in the room, turbulence within the hood working space, and hood location. It is the proper selection and control of these factors as a group that determines the performance of the hood from the standpoint of hazard control.

(1) Face Velocity. Air flow rates, to provide protection from operations performed in the hood, must provide positive control of air movement against competing influences. Control velocities required at the face of the hood range from 80 FPM for "ideal" laboratory conditions to 100 FPM for "good" conditions. (See Appendix 8-D, subparagraph 2.c.)

(2) Operator Effect. The operator standing in front of the hood may effect the air flow patterns. The "eddies" formed around the operator can carry contaminants from the hood to the operator's breathing zone. Proper use of make-up air at the hood face, with emphasis on filling the void or minimizing the low pressure area in front of the operator, is necessary for optimum hood performance.

(3) Air Movement in the Laboratory. Air movement within the laboratory affects the performance of hoods and is influenced by hood location and room air supply systems. Hood locations must be away from doors, operable windows, and pedestrian traffic. Air from these sources can attain velocities several times greater than the hood face velocity, creating potential fro dragout or displacement of contaminated air from the hood. Ceiling and wall diffusers for distribution of make-up air are also serious potential sources of interference. Air from such outlets should either be controlled to assist in the performance of the hood ir directed so that the energy is lost before entering the zone of influence. Experience indicates that air from make-up systems should not exceed 25 FPM in the hood face areas (measured with hood exhaust "off"). Air drawn from adjacent areas (by the hood exhaust system) must enter in a manner that does not create excessive turbulence.

(4) Hood Turbulence. Upon entering the hood, the air is drawn past equipment and sources of contamination toward the exhaust slots. Much of the air within the hood is in a turbulent state. At air-flows greater than needed to provide a good vector and contain the contaminant, the resulting turbulence can be excessive causing a "rolling effect" in the hood chamber. This increases the potential for greater mixing of contaminated air and room air at the hood face. Often, a combination of poor hood arrangement and interior turbulence will result in loss of contaminated air to the room.

(5) Hood Location. Location of a hood at the end of room or bay, where the operator is essentially the only one who enters the zone of influence, is the most desirable. In any arrangement, pedestrian traffic past fume hoods should be minimized. Hood location parameters are detailed in subparagraph 2.c.

c. Hood Location Classification.

"Ideal" (1) End of room or bay, no nearby doors or windows.

(2) Essentially no pedestrian traffic, other than hood operator.

(3) All of the required laboratory hood make-up air drawn or induced to enhance over-all hood performance. For example, a properly designed and located perforated ceiling section or well designed auxiliary air hood plenum.

(4) No other grilles or diffusers exist that produce air at measurable velocities in the hood area.

"Good" (1) Not on a main aisle, no nearby doors or windows.

(2) Minimum traffic other than hood operator.

(3) Have air supplied to lab so velocity from diffusers or grilles does not exceed 25 FPM in vicinity of hood.

"Poor" (1) Any one or more of the above conditions are not met.

d. Additional Specifications and Procedures. Additional specification and performance evaluation procedures for laboratory fume hoods can be found in:

(1) EPA Laboratory Fume Hood Specifications and Performance Testing Requirements, available from the EPA of Occupational Health and Safety Staff.

(2) U.S. Environmental Protection Agency Facilities Safety Handbook, Amendment No. 1, available from the EPA Facilities Engineering and Real Property Management Branch.

3. CLASS II BIOLOGICAL SAFETY CABINET.

The Class II biological safety cabinet is a primary containment device designed to protect the laboratory work as well as the laboratory worker.

a. Cabinet Function. The Class II biological safety cabinet provides a blanket of clean air over the work, contains air contaminants in the work area, and conveys the contaminated air away from the operator. It accomplishes these functions by combining recirculation with filtration and exhaust. HEPA filtered air descends over the work surface and splits at the center. A portion of the downflow air exist through a front air intake grille, and the balance exits through a rear air exhaust grille.

The downflow air is reunified under the work surface and forced up through a rear or side positive pressure plenum to the unit's top. Type A (30%) or Type B (70%) of this air is filtered and exhausted and the balance is filtered and forced down to blanket the work. The make-up air (30% Type A or 70% Type B) enters from the room through the front intake grille and sweeps by and protects the operator. Total exhaust Class II biological safety cabinets which have recently become available presumably provide high personnel protection factors.

b. Conditions Affecting Cabinet Performance. The conditions that affect cabinet performance are essentially the same as the conditions that affect laboratory hood performance which were presented in detail in 2.b. above. The operator effect can be particularly pronounced since the operator's arms interfere with the recirculating downflow air vector.

c. Additional Specifications and Procedures. The Occupational Health and Safety Staff is developing standards for these cabinets using the EPA laboratory hood standard as a model. Meanwhile, equipment descriptions, recommended specifications and certification procedures can be found in the following documents:

(1) Laboratory Safety Monograph, A Supplement to the NIH Guidelines for Recombinant DNA Research. U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, January 1979.

(2) National Sanitation Foundation Standard No. 49. National Sanitation Foundation, Ann Arbor, Michigan, 1976.

4. GLOVE BOX.

a. The Glove Box, or Class III cabinet, is a totally enclosed ventilated cabinet of gastight construction. Operations within this equipment are conducted through attached rubber gloves. When in use, the equipment is maintained under negative air pressure of at least 0.5 inches water gauge. A small volume of supply air, to prevent contamination build-up, is drawn into the equipment through a HEPA filter and the exhaust air is treated to prevent the discharge of contaminants in to the environment. This equipment provides the highest level of personnel and environmental protection.

b. The Glove Box is generally recommended for the isolation of procedures involving stock quantities of concentrated toxic substances. Worker protection can be compromised by puncture of the gloves or accidents creating positive pressure. Flammable solvents should not be used in this equipment unless a careful evaluation has been made to determine that concentrations will not reach explosive levels. When the use is determined safe, these materials should only be introduced into the glove box in closed, non breakable containers. These materials should not be stored in the glove box. Flammable gas should not be piped to this equipment.

The Class III cabinet is also described in paragraph 3.b.(5) of this Chapter of the Manual.

APPENDIX E - SECONDARY CONTAINMENT FACILITIES FOR HIGHER RISK STIUATIONS

1. PURPOSE. The purpose of secondary containment facilities is to provide the additional engineering controls for "higher risk situations", as defined in paragraph 5.b. of Chapter 8 of this Manual, in order to give added protection against spread of toxic contamination into other building areas in the event of accidental release of toxic substance within the containment area. The major components of secondary containment facilities are described in this Appendix.

2. SPECIAL HANDLING ROOM. The "Special Handling Room" must be an enclosed space dedicated for use with the "higher risk situations." this room is not to be used for other than "higher risk situations" unless rigorous decontamination is performed. Effluent air from any glove box and fume hood located in the "Special Handling Room" must pass through a solvent resistant HEPA filter and an activated carbon adsorber. No water service will be permitted in this room. All liquid wastes will be absorbed and then removed as solid wastes. This Room must be maintained under negative air pressure in relation to all adjoining areas within the "Containment Area."

3. LABORATORY WORK AREA. A laboratory work area adjoining the Special Handling Room must be included in the "Containment Area." This laboratory work area will be used for moderate risk laboratory operations and may be used conventional or lower risk laboratory operations when it is not being used in conjunction with the Special Handling Room for higher risk situations.

4. CHANGE ROOMS AND SHOWER FACILITIES. Dirty and clean rooms and shower-out facilities must be provided adjacent to the "Special Handling Room." Duplicate facilities, for each sex, are encouraged. However, for a small "Special Handling Room," one set of change/shower facilities will be acceptable if the entering and exiting doors are electrically interlocked.

5. TOILET ROOM. A toilet room with water closet, lavatory, and manual internal lock is required within the "Containment Area."

6. AIR LOCK. The conveyance of all material and personnel between the Containment Area and the building corridor must be conducted through an airtight vestibule. Containment area must be maintained under negative pressure in relation to the corridor and adjoining building areas. The change room and shower facility can serve as the air lock.

APPENDIX F - PACKAGING, MARKING, LABELING, AND SHIPPING OF TOXIC SUBSTANCES USED BY LABORATORIES

1. GENERAL PROVISIONS. These procedures apply to substances considered toxic for this Manual (identified in Appendix 8-A) which are shipped between laboratories or the field. Applicable laboratories include any EPA laboratory or private laboratory under contract with EPA to handle these toxic substances.

a. Most of the toxic substances identified in Appendix 8-A are not materials specifically identified in the Department of Transportation (DOT) Hazardous Material Table (49 CFR 172.101). Any material listed in the DOT Table should be transported according to the table or according to applicable DOT packaging exemptions (e.g., a Poison B, n.o.s. can be packed in Labelmaster, Inc.'s package #38, or Dow Chemical Co.'s Imbiber Pack for shipment by Unied Parcel Service). Substances that are judged to be environmental samples should be shipped according to EPA national guidance (Compliance with Department of Transportation Regulations in the Shipment of Environmental Laboratory Samples, memorandum by water media DAAs, available from Occupational Health and Safety Staff).

b. Toxic substances may be transported by rented or common carrier, truck, bus, railroad, and by Federal Express Corporation* (air cargo); but they may not be transported by any other common carrier air transport or even by "cargo only" aircraft other than Federal Express at this time.

c. If toxic substances are transported by any type of government-owned vehicle, including aircraft, DOT regulations are not applicable. However, EPA personnel must still use the packaging procedures described below.

2. PRELIMINARY STEPS. The following procedures should be followed before toxic substances are shipped:

a. Place a sufficient quantity of the toxic substance in glass and/or polyethylene containers to determine whether it will react with or substantially reduce the effectiveness of the container.

b. Pack toxic substances according to "Packaging, Marking, and Labeling Requirements for Toxic Substances Used by Laboratories."

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* These procedures are designed to enable shipment by entities like Federal Express and should not be construed as an endorsement by EPA of a particular commercial carrier.

3. PACKAGING, MARKING AND LABELING REQUIREMENTS FOR TOXIC SUBSTANCES USED

a. Place the toxic substance in a 16-ounce* or smaller glass or polyethylene container with nonmetallic, teflon-lined screw cap. Allow sufficient ullage (approximately 10% by volume) so container is not liquid full at 130°F. If an air space in the innermost container cannot be tolerated in order to maintain sample integrity, place it within a second container which provides the required ullage. If collecting a solid material, the container plus contents must not exceed one pound net weight.

b. For toxic substances which are samples taken in the field, attach properly completed sample identification tag to sample container.

c. Seal the toxic substance container and place in two-mil-thick (or thicker) Polyethylene bag, one container per bag. Plastic coated glass bottles with polypropylene caps, which can satisfy a four-foot drop test, are currently available which can serve as both the container and polyethylene bag. (Labels and/or tags should be positioned to enable them to be read.)

d. Place sealed bag or plastic bottle inside a metal can with incombustible, absorbent, cushioning material (e.g., vermiculite, coarse grade to minimize dust), one bag or plastic coated bottle per can. Pressure-close the can and use clips, nylon reinforced tape, or other positive means to hold the lid securely, tightly, and effectively.

e. Mark and label this can as indicated in 3.h. below.

f. Place one or more metal cans (or single one-gallon bottle*) surrounded with incombustible packaging material for stability during transport, into a strong outside container, such a fiberboard box.

g. Mark and label the outside container and complete shipping papers (if required) as described in 3.h. below.

---

* Larger capacity containers, up to one gallon, may be used to toxic substances with a flash point of 73°F or higher. In this case, such should be marked on the outside container (carton, etc.) but only a single (one gallon or less) bottle may be packed in an outside container. Ten percent ullage and requirements 2, 5, 6, and 7 below must also be followed. On the shipping papers (if required) state that "flash point is 73°F or higher.

h. Marking and labeling. Use abbreviations only where specified for DOT listed hazardous materials. Place the following information on strong outside container, either hand printed or in label form:

(Laboratory name and address)

Toxic Substance, Not regulated by DOT (chemical name):

EPA Laboratory Sample

"THIS SIDE UP" or "THIS END UP" should also be marked on the top of the outside container, and upward pointing arrows should be placed on all four sides of the exterior container.

i. Shipping Papers. Shipping papers are not required for toxic substances which are not DOT listed hazardous materials. Regulations for shipping papers for DOT listed hazardous materials are presented in 49 CFR 172.200-204.

CHAPTER 9 - HAZARDOUS SUBSTANCES RESPONSES

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Work Practices Requirements	3

APPENDIX A - SAMPLE SAFETY PLAN

APPENDIX B - REFERENCES

CHAPTER 9 - HAZARDOUS SUBSTANCES RESPONSE

1. POLICY AND RESPONSIBILITY.

a. Purpose. This chapter establishes policy and requirements, and assigns responsibilities for the Agency occupational health and safety program for EPA employees engaged in hazardous substances responses (herein referred to as responses).

b. Policy. The EPA is committed to providing safe and healthful working conditions for EPA employees engaged in responses.

c. Background. EPA Occupational Health and Safety Manual Chapter 6, Executive Order 12196 and 29 CFR 1960.12 require the EPA to adopt supplementary standards for application to working conditions for which there exists no appropriate OSHA standard. The EPA fulfills this requirement for working conditions at responses by implementing this chapter. This chapter was originally envisioned as an adaptation of the "Safety Manual for Hazardous Waste Site Investigations" which was drafted by EPA's National Enforcement Investigation Center (NEIC) and further developed by the NEIC, the Hazardous Waste Enforcement Task Force, and the Occupational Health and Safety Staff (OHSS). This chapter establishes the agency's program but leaves EPA program offices to prepare detailed guidance and procedures.

d. Discussion. Response personnel must deal with the risk of incurring illness or injury while conducting responses. They cannot anticipate every hazard, so they must take precautions to prevent illness or injury to themselves, other workers, and the public.

Since response personnel cannot eliminate risk, they must reduce it to the lowest feasible level. No set of rules can be uniformly applied to every situation. The On-Scene Coordinator or Superfund Coordinator (OSC/SFC) must judiciously apply the requirements of this manual chapter at each response site (herein referred to as site.) The OSC/SFC must assess those variables peculiar to each response in order to establish appropriate safeguards.

e. Responsibilities.

(1) Assistant Administrators (AA), Regional Administrators (RA), Laboratory Directors and others designated as Officers-In-Charge (OICs) are responsible for:

(a) Implementing the requirements of this chapter for responses conducted by employees of their reporting unit, and all establishments and workplaces within their area of jurisdiction.

(b) assuring that any OSC/SFC conducting a response, and other involved programs and support staff, are qualified by training or experience, have the equipment to conduct the response safely, and plan a response which is safe to all concerned.

(c) assuring the completion of annual program evaluations. (See Paragraph 2.b. of this Chapter.)

(2) Safety Committee. The OIC will establish a specialized Response Safety Committee, consisting of EPA employees who do perform on-site activities, that is consistent with Chapter 5 of this Manual.

(a) aiding and advising the OIC on policies and requirements for the reporting unit's occupational health and safety program for responses; and

(b) reviewing site-specific or generic Safety Plans (See 2.a.) prepared by OSCs/SFCs and forwarding them to the OHS Designee. The Response Safety Committee does not have approval authority.

(3) Occupational Health and Safety Designee (OHS Designee). The OHS Designee:

(a) is responsible to the OIC for developing, organizing, directing, and evaluating the occupational health and safety program for responses; and

(b) is responsible for coordinating accident reporting, record-keeping and often the medical monitoring program. (See Chapter 1, Paragraph 3, of this Manual for a detailed description of the OHS Designee's occupational health and safety responsibilities.)

OHS Designees must either have background and training in recognizing, evaluating, and controlling hazards at responses or have access to this expertise.

(4) On-Scene Coordinator or Superfund Coordinator (OSC/SFC). The OSC/SFC is responsible for:

(a) selecting the level of personnel protection needed for use at a response and assuring that the necessary personal protective equipment is available before EPA employees are allowed to work on-site;

(b) selecting safe work practices and other controls at responses;

(c) preparing site specific or generic safety plans and any needed detailed procedures; (See Paragraph 2.a. of this Chapter for requirements, and Appendix A for a Sample Safety Plan.)

(d) submitting site specific safety plans to the Response Safety Committee for its review; submitting the generic safety plan to the Safety Committee for its review well in advance of emergency responses;

(e) making copies of the approved safety plan available to all affected program and supporting EPA personnel and provide copies to those employees participating in specific responses;

(f) assuring that EPA employees are trained and certified in the work practices required to ensure safety, and are informed of the hazards associated with the response before they are allowed to work on-site (in compliance with EPA Order 1440.2, Paragraph 9);

(g) assuring that EPA employees are included in the EPA Occupational Medical Monitoring Program and have undergone a baseline medical examination before they are allowed to work on-site (in compliance with EPA Order 1440.2, Paragraph 12);

(h) designating, if support is needed, one member of the response team as the Site Safety Officer, and assuring that that person fulfills all responsibilities necessary for safe operations;

(i) supervising the safety performance of the staff to ensure that the required work practices are used;

(j) arranging for immediate medical attention for any incident that results in injury or overt exposure of personnel to hazardous substances, and reporting the incident to the OHS Designee;

(k) assisting the OHS Designee in investigating accidents;

(l) investigating, and reporting in writing to the OHS Designee, any problem pertaining to operation and implementation of safe work practices;

(m) correcting work errors and conditions that may result in injury or exposure to hazardous substances;

(n) assuring safe and healthful working conditions for all EPA employees at the response; and

(o) Informing non-EPA employees of the hazards and appropriate measures to assure safe and healthful working conditions for these employees.

(5) Site Safety Officer. The Site Safety Officer, if one is designated, is responsible for implementing the Safety Plan at the site.

(6) Employees. Employees are responsible for:

(a) complying with the occupational health and safety program established by this chapter for responses;

(b) reporting to their supervisors, or the Site Safety Officer, any unsafe condition and all facts pertaining to incidents which resulted in employee injury or exposure to hazardous substances;

(c) reading and understanding the site-specific or generic Safety Plan;

(d) carrying out responses in accordance with the site-specific or generic Safety Plan; and

(e) participating in the medical monitoring program when this is a formal condition of employment. (Employees are afforded certain rights such as requesting inspections of working conditions and commenting on Agency safety standards. See Chapter 2, Paragraph 5, of this manual for a detailed description of employee rights.)

(8) Director, Occupational Health and Safety Staff. Under the supervision of the Director, Office of Administration, the Director, Occupational Health and Safety Staff, is responsible for:

(a) reviewing and coordinating the occupational health and safety programs developed by OICs for responses for consistency with this chapter (See I.e. (1).);

(b) evaluating responses for compliance with Agency policy and requirements;

(c) informing responsible EPA officials of any problem areas;

(d) providing technical support;

(e) approving safety training courses; and

(f) establishing medical monitoring program requirements.

The Director, OHSS, is the top technical advisor for EPA on occupational health and safety issues for responses.

2. PROGRAM REQUIREMENTS

a. Site-Specific and Generic Safety Plans. The OSC/SFC must prepare and obtain approval of a site-specific or generic safety plan (See Appendix A for a sample). Only one generic safety plan, prepared in advance and reviewed annually, is needed for all emergency responses. The Response Safety Committee must review the safety plans and forward them to the OHS Designee with comments. The OHS Designee and the OIC must approve the safety plans. The OHS Designee must maintain the safety plans on file and available for distribution and forward information copies to the Director, OHSS. The OHS Designee must keep the safety plans, and other information describing the hazards of responses in a file that is readily available to employees.

b. Evaluation. The OIC must ensure that annual program evaluations, including on-site inspections, of the occupational health and safety program for responses are conducted by persons with appropriate background and training, and that any deficiencies are corrected as soon as possible (or immediately if the deficiency is an imminent hazard). The OIC must forward a copy of the evaluation and abatement actions to the Director, OHSS, for review. The Director, OHSS, may conduct independent evaluations.

c. Accident Reporting. The OHS Designee must coordinate the reporting of any incident involving injury or exposure to a hazardous substance in accordance with the procedures detailed in Chapter 3 of this manual.

d. Training. The OIC must ensure that all employees receive a minimum of 24 hours of occupational health and safety training and receive training by three days of field experiences with an experienced employee before conducting responses. The OHS Designee must issue a certificate to employees upon completion of the courses and field experiences. EPA Order 1440.2, "Health and Safety Requirements for Employees Engaged in Field Activities", provides detailed training requirements.

e. Emergency Procedures. The OSC/SFC must develop procedures to protect personnel in case of emergencies at the site. The procedures should include notifying emergency and other affected personnel and the locations and telephone number of the nearest emergency medical facility, ambulance service, fire department, police department and Poison Control Center. The locations and telephone numbers of these emergency support groups should be compiled in advance, if possible, of a response or on-site at an early stage of a response.

f. Medical Monitoring. All EPA employees working on site at a response must be included in the EPA medical monitoring program. In addition, EPA employees must have undergone a baseline medical examination which provides a base to measure adverse health effects of response activities and indicates that these employees are physically capable of using physically demanding personal protective equipment. EPA Order 1440.2 "Health and Safety Requirements for Employees Engaged in Field Activities" provides medical monitoring objectives and requirements; EPA Medical Monitoring Guidelines provides detailed requirements of the program.

3. WORK PRACTICES REQUIREMENTS

The work practices specified in this section must be used by all personnel at responses.

a. Personnel Practices.

(1) Protective Clothing. Protective clothing must be worn by all personnel while on a response unless sufficient data have been acquired to enable the OSC/SFC to make an informed judgement that protective clothing is not needed. In the absence of clear indications that work can proceed safely without protective clothing, required items includes chemically resistant pants, jacket, boots, gloves, and hard hat or head cover, and may include a fully encapsulating chemical protective suit. Acquisition of protective clothing and equipment must be in accordance with EPA Order 3100.1, Uniforms, Protective Clothing and Protective Equipment.

(2) Use of Respiratory Protective Equipment. A respiratory protective equipment use program must be provided for response personnel who enter inhalation hazard areas. The program must meet the requirements of the OSHA standard for respiratory protection, 29 CFR 1910.134, and EPA Order 1440.3 "Respiratory Protection." OHSS has provided additional guidance in the "Respiratory Protection Program Guideline," available from OHSS.

(3) Heat Stress. The OSC/SFC must establish a work/rest schedule to compensate for increased heat stress caused by wearing protective clothing in hot weather. Employees must maintain this work/rest schedule and replace perspired water and salt.

(4) Eye Protection. Devices to provide appropriate eye protection must be worn on any response while in the contamination and decontamination zones (See Paragraph 3.b.(a) of this Chapter.) and must meet the requirements of EPA's Eye Protection Program Guidelines.

(5) Forbidden Practices. The following practices are forbidden on sites in the contamination and decontamination zones (See 3.b.(a)):

(a) Smoking, eating, drinking, chewing gum or tobacco; applying cosmetics; storing utensils, food, or food containers.

(b) Ignition of flammable liquids within, on, or through improvised heating devices (barrels, etc.) or space heaters.

(c) Approach or entry into areas or spaces where toxic or explosive concentrations of gases or dust may exist without wearing proper equipment to enable safe entry.

(d) Conduct of on-site operations without off-site backup personnel. (The OSC/SFC may waive the requirement for off-site backup personnel for sites which have been repeatedly entered without harm or present minimal hazards.)

(6) Emergency Procedures. All personnel must initially flush the affected area with a copious amount of water immediately after obvious contact with a hazardous substance.

(7) Personal Hygiene. All personnel, except for observers and others designated by the OSC/SFC, must shower before entering clean areas after having been in contaminated areas. If it is not feasible to have shower facilities available, such as for some emergency responses, personnel must avoid contaminating the community after leaving the site and shower at their first opportunity.

b. Operational Practices.

(1) Information Review and Reconnaissance. The safety plan for a response must be based upon a thorough evaluation of existing data and a site reconnaissance (See "Waste Disposal Site Hazard Assessment Manual," available from NEIC.) and should include a site map. The information may reveal chemical hazards such as incompatible chemicals, toxic gases, explosives, etc. Similarly, a perimeter inspection, aerial imagery, and an on-site reconnaissance, may reveal safety hazards. Response personnel will be able to specify more appropriate safety precautions as they get closer to, and measure, hazardous substances in air, runoff, groundwater, soil, spilled material, barrels, etc.

(2) Protection Levels. The OSC/SFC must determine the level of protection which is appropriate for each response.

(3) Zones. Two or more zones must be established, clearly delineated, and posted at a site.

(a) Decontamination Zone. A zone must be established for decontamination of equipment and personnel, and access control, just outside the area of suspected contamination. At least one employee will remain in this zone to:

1 Assist in emergency removal of personnel from the site in the event of accident or injury. The backup must have readily available protective clothing, breathing apparatus and first aid equipment.

2 Assist in moving equipment, samples, and supplies.

3 Provide communication to emergency units.

4 Assist in decontamination or removal of contaminated clothing from the individuals emerging from the contaminated area.

5 As appropriate, prevent entry of unauthorized persons to the site while operations are underway.

6 Provide other assistance as necessary, but with the primary objective of facilitating safe transfer of personnel and equipment to and from the affected area.

(b) Contamination Zone(s). The area(s) which contain, or are suspected of containing, hazardous substances must be clearly delineated and posted. The OSC/SFC may establish more than one contamination zone for areas of different levels of hazard. Only persons authorized by the OSC/SFC may enter a contamination zone.

(4) Radioactivity, Explosivity, and Oxygen Deficiency. All sites must be checked for radioactivity, explosivity, and oxygen deficiency during first entry unless OSC/SFC has information to determine that these checks are unnecessary. Normal background radioactivity is approximately 0.01 to 0.02 mR/hr. Detecting levels of activity significantly greater than normal background is cause for a very careful survey of the entire site; if levels approaching 2 mR/hr are encountered, the advice of a competent health physicist must be sought before continuing operations on the site. (EPA's Office of Air and Radiation has radiation specialists in each Region as well as staff at HQ, EER-Montgomery and ORD-Las Vegas.)

If explosivity readings greater than 10% of the Lower Explosive Limit (LEL) are detected, very careful survey of the area must be made. Readings approaching or exceeding 25% LEL are cause for immediately withdrawing personnel and notifying emergency, fire, and explosion units. The Project Leader must be consulted before continuing operations. Oxygen levels must be 19.5% or greater.

(5) Buddy System. A minimum of two employees, in constant communication* with each other, are required to perform any work in contaminated zones.

(6) Sampling Procedures. Sampling procedures must minimize the risk of personnel exposure to hazardous materials during sampling, packaging, shipping, unpacking, and analysis in the laboratory. Sampling procedures must also minimize the risk of exposure of others to spilled or residual waste materials. Disposable sampling equipment should be used whenever possible.

(7) Sample Handling in Laboratories. Samples of runoff, ambient air, or groundwater from a site or possibly affected areas may be moved directly into laboratories and handled with normal safety precautions unless the OSC/SFC determines that special handling is appropriate. Samples of liquid or solid substances removed from containers or obviously contaminated spill areas must be assumed to be toxic substances and handled in compliance with Chapter 8 of this Manual.

(8) Respiratory Protective Equipment Selection. The OSC/SFC must select respirators which are appropriate for the inhalation hazards of the responses.

(9) Sampling Equipment. Sampling equipment used on a response should be disposable if possible. Sampling instruments and other non-disposal equipment should be kept clean with disposable protective covers. Scoops, sampling tubes, and similar devices should be buried on-site, or placed in plastic bags for disposal or later decontamination.

(10) Decontamination of Equipment. Equipment should be decontaminated prior to leaving the site whenever possible. Equipment which cannot be decontaminated at the site must be double bagged and transported to another area for eventual decontamination. When possible, verify completeness of decontamination with sniffers, swipe tests, or other appropriate tests.

(11) Packaging and Shipping. Hazardous substances must be packaged to withstand shocks, pressure changes, and any other conditions which might cause the leakage of contents incident to ordinary handling during transporation. Shipments of hazardous substances must be in accordance with DOT regulations. (See Appendix B of this Chapter for guidance.)

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* Radio contact must be maintained when visual contact cannot be maintained.

(12) Leaving the Site. Procedures for leaving the suspect contaminated area must be planned before entry. Provision must be made for: decontamination and safe packaging of protective clothing; burial or safe packaging of disposable gear; handling of samples and preparation of samples for shipment; transfer of equipment, gear, and samples from the "contaminated" area to the "clean" area; etc. Sequences will depend on several variables -- such as self-contained breathing apparatus inside or outside of protective clothing -- but must be worked out in advance.

(13) Site Monitoring Equipment. Use direct reading instruments (such as portable combustible gas and oxygen meters, photoionization meters, gas chromatographs, infrared spectrometers, radiation survey meters, and colorimetric detector tubes) for immediate evaluation of potential hazards. The OSC/SFC must be aware of the limitation of these instruments for characterizing the hazards substances at the sites.

APPENDIX A - SAMPLE SAFETY PLAN

Assistance in preparing the safety plan can be obtained from the OHS Designee _____ located in Room _____ of Building _____ or by telephoning _____.

REVIEW

Response Safety Committee Chairperson _____

APPROVALS

OSC/SFC _____

OHS Designee _____

OIC _____

PROJECT LEADER

Branch _____

Building _____

Room _____

Phone _____

DATE OF PLAN PREPARATION _____

HAZARDOUS SUBSTANCE RESPONSE

Site Name _____ Site No. _____

HAZARDOUS/SUBSTANCES (known or suspected, contaminated media or in storage container, etc.):

_____

_____

_____

HAZARD ASSESSMENT (toxic effects, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc.):

_____

_____

_____

_____

MONITORING PROCEDURES (If required by the Project Leader)

Monitoring the site for identity and concentration of contamination in all media:

_____

_____

_____

_____

Medical monitoring procedures for evidence of personnel exposure:

_____

_____

_____

_____

Personnel monitoring procedures:

_____

_____

_____

_____

_____

DECONTAMINATION AND DISPOSAL

Decontamination Procedures (contaminated: personnel surfaces, materials, instruments, equipment, etc):

_____

_____

_____

Disposal Procedures (contaminated equipment, supplies, disposable, washwater):

_____

_____

_____

_____

EMERGENCY PROCEDURES

In event of overt personnel exposure (skin contact, inhalation, ingestion):

_____

_____

_____

_____

In event of personnel injury:

_____

_____

_____

_____

In event of potential or actual fire or explosion:

_____

_____

_____

In event of potential or actual ionizing radiation exposure:

_____

_____

_____

In event of environmental accident (spread of contamination outside sites):

_____

_____

_____

_____

EMERGENCY SERVICES (complete here or have separate list available on-site)

Location	Telephone
Emergency Medical Facility	
_____	
_____	
_____	
Ambulance Service	
_____	
_____	
_____	

	Location	Telephone
Fire Department		
Police Department		
Poison Control Center		

PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS SUBSTANCES

Personnel Authorized to Enter site

1. _____
2. _____
3. _____
4. _____
5. _____

Other Personnel Assigned to Handle Hazardous Substances (decontaminate, analyze samples)

1. _____

2. _____

3. _____

4. _____

5. _____

ALTERNATIVE WORK PRACTICES

(Describe alternative work practices not specified in this Chapter. Indicate work practices specified in the Chapter for which proposed alternative work practices will serve as substitute.)

_____

_____

_____

_____

APPROPRIATE LITERATURE CITATIONS

LEVEL OF PROTECTION

SITE MAP

(Attach a site map in advance of a response, if possible, or at an early stage of an emergency response. Map should be properly scaled and keyed to local landmarks.)

APPENDIX B - REFERENCES

U.S. EPA: National Guidance Package for Compliance with Department of Transportation Regulations in the Shipment of Environmental Laboratory Samples, U.S. Environmental Protection Agency (March 6, 1981).

CHAPTER 10 - EPA DIVING SAFETY POLICY

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APPENDIX 10-A - EPA DIVING SAFETY RULES

CHAPTER 10 - EPA DIVING SAFETY POLICY

1. PURPOSE. This Chapter establishes Agency policy regarding commercial diving operations in accordance with Department of Labor, Occupational Safety and Health Administration regulations at 29 CFR 1910, Subpart T. Its purpose is to assure that all diving operations, performed under the auspices of EPA, are conducted in a safe manner, according to uniform procedures, and by sufficiently trained personnel. This Chapter establishes Agency procedures for developing and administering such standard safety practices.

2. SCOPE. The requirements and procedures specified in this Chapter shall apply to all diving operations involving any project of the Agency and carried out by any employee, either temporary or permanent, of the Agency during the course of his/her employment. In addition, these requirements shall also apply to any visiting non-Agency employee engaged in a joint diving operation at, or under the auspices of, any Agency facility to the extent that this person is not governed by comparable requirements of the Agency or institution that he/she represents. This Chapter applies, regardless of ownership of equipment, and any equipment used in conjunction with Agency diving operations regardless of ownership, shall conform to the provisions of this Chapter. This Chapter shall apply to any type of open circuit SCUBA diving operation, including but not limited to: research projects, monitoring projects, sample collections, or equipment maintenance, with the only exception being the handling of an actual emergency situation. It is not the intent of these provisions to delay or hamper an actual rescue operation; therefore, it is the responsibility of the Unit Diving Officer or Dive Supervisor at the scene to determine the ultimate course of action during a particular emergency and by doing so, must not aggravate the situation or jeopardize the safety of additional personnel.

3. ADMINISTRATION. The Assistant Administrator for Administration and Resources Management broadly administers the Agency's Diving Safety Program through the Occupational Health and Safety Staff (OHSS).

a. Designation. The Occupational Health and Safety Staff, upon the advice of the EPA Diving Safety Committee, shall administer the Agency's Diving Safety Program and coordinate safety policy and procedures.

b. EPA Diving Safety Committee.

(1) Composition. The EPA Diving Safety Committee shall be composed of the following members:

(a) Chairperson selected or voted on by Committee Members;
(b) Active EPA Diving Officers; and
(c) OHSS Safety Programs Manager.

(2) Revisions. All recommendations for revisions of the regulations must be agreed upon by the EPA Diving Safety Committee.

(3) Responsibilities. The EPA Diving Safety Committee shall be responsible for:

(a) Recommending policy and changes in operating procedures within EPA that will ensure a safe and efficient diving program;

(b) Reviewing existing policies, Procedures, and training needs to ensure a continually high level of technical skills and knowledge throughout the EPA diving program;

(c) Planning, programming, and directing, in cooperation with the OHSS, matters of policy pertaining to the initial certification of new divers and refresher training of experienced divers;

(d) Recommending changes in operating policy to the Director, Occupational Health and Safety Staff, the Assistant Administrators, and Regional Administrators;

(e) Serving as an appeal board in cases where a diver's certification has been suspended;

(f) Planning, programming, and developing diver workshops, seminars, and other activities considered essential to maintaining a high level of competency among divers;

(g) Reviewing EPA diving accidents or potentially dangerous experiences and reporting on preventive measures to ensure the avoidance or reoccurrence of incidents; and

(h) Meeting, at least, annually to discuss recommendations and proposed actions.

In addition, members may participate in the Safety Officer/Designees Annual Meeting.

c. Diving Safety Committee Chairperson. The Committee will select or vote for a chairperson to represent them and act as focal point on all EPA diving activities.

(1) Qualification. The Chairperson shall:

(a) Be a trained diver with a wide range of experience;
(b) Be a currently certified EPA diver;
(c) Have a least 5 year's experience as a diver; and
(d) Have successfully completed a nationally recognized instructors certification course or its equivalent.

(2) Responsibilities.

(a) Issue through OHSS, EPA Diver Certification to qualified employees based on recommendations and data from the unit diving officer;

(b) Coordinate with OHSS, and the Diving Safety Committee training certification and other safety programs for divers;

(c) Confer with the OHSS Industrial Hygiene Manager on the approval and use of specialized breathing apparatus or mixture of gases;

(d) Review and initiate through OHSS, appropriate action on recommendations made by the Diving Safety Committee; and

(e) Remain abreast of new diving techniques, procedures and equipment.

d. Unit Diving Officer.

(1) Designation. Unit Diving Officers shall be selected from various EPA installations which conduct diving operations. These diving officers shall be appointed by the installation director.

(2) Qualifications. The Unit Diving Officer shall be a trained, currently certified diver experienced in the types of diving conducted by the organizational unit.

(3) Responsibilities. The Unit Diving Officer shall be responsible, within the unit, for:

(a) Ensuring that all diving gear and accessory equipment be maintained in a safe operating condition;

(b) Ensuring the maintenance of equipment files at the reporting unit levels, to include type, brand name, serial number, and repairs completed on compressors, tanks, regulators, depth gauges, pressure gauges, watches, helmets, hoses, pneunometers and decompression meters;

(c) Ensuring that a competent Dive Supervisor is in charge of the diving operations conducted by the unit's various operations;

(d) Reporting immediately all diving related accidents which occur within the unit on EPA Form 1440-9 and other appropriate accident reports as outlined in Chapter 3 of this Manual to the Occupational Health and Safety Staff through the local Safety Officer/ Designee;

(e) Maintaining a file of each diver in the unit, or delegating the responsibility to the Dive Supervisor. Files shall include but not be limited to: diving physical exams (subject to the requirement of the Privacy Act of 1974), training records, letters of certification, and monthly dive logs, etc; and

(f) Dive plan/log information.

e. Dive Supervisor.

(1) Designation. Depending on the unit organization, a Dive Supervisor will be assigned for each operation by the Unit Diving Officer

(2) Qualification. The Dive Supervisor shall be a currently certified diver experienced in that specific type of diving.

(3) Responsibilities. The Dive Supervisor shall be in complete charge of the individual diving operation as a member of the dive team at the location of the dive, and shall be responsible for and ensure that:

(a) All diving operations are conducted safely in accordance with prescribed EPA diving safety rules and regulations;

(b) All divers are certified, properly trained, and physically fit to perform the required diving, and that the prescribed files on the divers are maintained if the responsibility has been delegated by the Unit Diving Officer;

(c) All equipment is in a safe operating condition, and that the required records are maintained as directed by the Unit Diving Officer;

(d) Dives are terminated when, in The Diver Supervisor's opinion, significant cant environmental, personal, or equipment problems are encountered and emergency aid is summoned;

(e) Emergency procedures are understood by all personnel prior to diving;

(f) All divers are monitored after each dive for symptoms of decompression sickness; and

(3) He/she is knowledgeable in the dive plan and overall operation to be performed.

f. Individual Diver.

(1) Designation. Individual divers shall be certified by the EPA Diving Safety Committee Chairperson upon recommendation from the Unit Diving Officer.

(2) Qualifications. Divers shall be sufficiently trained to undertake the assigned diving tasks.

(3) Responsibilities. The individual diver shall be responsible for and ensure that:

(a) A good physical condition and a high level of diving proficiency are maintained;

(b) The equipment is in a safe operating condition;

(c) Diving conditions are safe; and

(d) The dictates of training or diving regulations are not violated.

g. Tender.

(1) Designation. The Dive Supervisor will select the Tender to be used for a specific dive. The Tender's name will appear on the Dive Plan/Log and will, therefore, be approved beforehand by the Unit Diving Officer.

(2) Qualifications. The Tender need not be a currently EPA certified diver, but must, in the opinion of the Dive Supervisor and the Unit Diving Officer, have sufficient knowledge of basic first aid, swimming, life saving, boat operation and other procedures to be used in an emergency.

(3) Responsibilities. The Tender will perform the following:

(a) Assist the divers, as requested, in putting on or taking off equipment;

(b) Record in writing the "down" and "up" times of all divers on the team;

(c) Maintain a constant visual observation of the diver's exhaust bubbles and,

1 warn off boat traffic which may pose a hazard to the submerged divers;

2 in larger vessels, advise the vessel operator as to the location of the divers and their readiness for being retrieved;

(d) Assist the divers, as requested, in exiting the water; and

(e) Perform no other concurrent function which will interfere with the conduct of the above duties.

4. POLICIES.

a. Individual Diver Responsibility. Each diver has the responsibility and privilege to refuse to dive if diving conditions are unsafe or unfavorable; if at any specific time, the diver feels that he or she is not in good physical or mental condition for diving; or if by diving, the diver would violate the dictates of training or these regulations. The conditions and reasons for refusing to dive may be required to be documented. If requested the incident will be reviewed by the officer in charge of the Reporting Unit with the Unit Diving Officer and diver, and appropriate action may be taken. Any action resulting from this review may be appealed to the EPA Diving Safety Committee.

b. SCUBA Diving Teams. Except under emergency conditions, the buddy system of at least two (2) divers will always be required. In the event that diving is shallow within a restricted area, with water conditions of low velocity and turbidity, the buddy diver may remain at the surface fully equipped, maintaining visual, verbal and/or physical contact with the working diver at all times. A surface attendant shall be in the immediate area any time diving conditions require it.

c. Diver Proficiency. EPA certified divers should complete and record an average of at least two (2) diving days per month. Any time six (6) weeks or more elapses without a dive, the diver should complete a requalifying program. Any time three (3) months or more elapses without a dive, the diver must complete a requalifying program before resuming work dives. The EPA Diving Safety Committee Chairperson, with the advice of the Diving Officer or designee, shall specify the requalifying program. This requirement may be waived by the official in charge of the project, program, or Reporting Unit during emergency conditions. A memorandum requesting such a waiver must be submitted to the Director, Occupational Health and Safety Staff, through the Unit Diving Officer for review by the EPA Diving Safety Committee. Supervisors will authorize the necessary time and payment for qualifying dives if diving is required for official

program activities. Diving equipment will be available during non-duty hours for purposes of maintaining diver proficiency.

5. DIVER TRAINING AND CERTIFICATION.

a. Training.

(1) Basic. All prospective EPA divers must have successfully completed a basic diver training course offered by one of the nationally recognized private agencies (e.g. NAUI, PADI, YMCA, NASDS) or by the U.S. Navy. Training courses given by colleges or universities must be approved for content by the EPA Diving Officer before being accepted for this requirement.

(2) National Oceanic and Atmospheric Administration (NOAA) Training. All working divers, senior divers and diving instructors shall attend the NOAA "Diving Accident Management" class within 1 year of adoption of this Chapter.

b. Medical Requirements.

(1) Prior to acceptance for initial diver training or certification, and annually thereafter, each diver shall be required to undergo a diving physical examination. The individual diver shall provide the examining physician with the following listed NOAA medical forms, as appropriate, in order to ensure an examination appropriate to diving activities:

(a) NOAA Form 64-5, Part I, Medical Evaluation Criteria;
(b) NOAA Form 64-5, Part II, Diving Fitness Medical Evaluation Report;
(c) SF-78, Certification of Medical Examination (Civilian Personnel);
(d) SF-88, Report of Medical Examination (Commissioner Personnel); and
(e) SF-93, Report of Medical History.

(These forms are available from the local Safety Officer/Designee.)

(2) Upon receipt of the completed medical documents from the examining physician, the individual diver is responsible for distribution of these forms as follows:

(a) Forward signed originals of SF-78 to the EPA Diving Safety Committee Chairperson through the Unit Diving Officer, with copies to OHSS;

(4) A written statement of the Unit Diving Officer's evaluation of the overall qualifications and performance of the prospective diver;

(5) An EPA certification issued by the Unit Diving Officer in one of the following categories:

(a) Trainee Diver. A diver who has completed a basic SCUBA diver training course but has performed fewer than 15 open water dives. Diver Trainees may not be paired together to form a dive team nor may they perform working dives. They may accompany a working diver as a buddy on dives involving a simple task, at the discretion of the Unit Diving Officer.

(b) Working Diver. A diver who has completed a least 15 open water dives, but who otherwise may have limited or infrequent experience or at the judgment of either the EPA or Unit Diving Officer should be restricted in his/her activities. A limited diver may perform working dives within his/her restriction or abilities.

(c) Senior Diver. A diver who has demonstrated a high level of competence, good judgment, and considerable experience and who has logged at least 100 dives. The senior diver shall be capable of serving as the Dive Supervisor on a given dive.

(6) At the recommendation of the Unit Diving Officer, along with supporting documentation, the EPA Diving Safety Committee Chairperson will issue new classifications as appropriate.

d. Reciprocity. In order to encourage and facilitate joint operations between EPA facilities and neighboring colleges, universities, private institutions, or other government agencies, the Unit Diving Officer may approve such dive plans upon inspection of the credentials of the prospective non-EPA diver, providing the criteria for certification of that diver by the institution he/she represents is comparable to those in this Manual. The visiting diver must also have permission from his/her diving officer and must be covered by an accident insurance plan by his/her institution. Questions in this matter should be directed to the EPA Diving Safety Committee.

6. DIVING OPERATIONS.

a. Certification. Each diver who is an employee of the U.S. Environmental Protection Agency must have an EPA certification at the level of the dive being conducted. Each non-EPA diver engaged in a dive under the auspices of any EPA facility must have a certification comparable to EPA certification from the institution he/she represents on file with the Unit Diving Officer.

b. Limits.

(1) All dives shall employ open circuit SCUBA using compressed air unless otherwise specifically approved by the Unit Diving Officer in writing.

(2) All dives shall be within the no decompression limits as specified in the U.S. Navy Decompression Tables. When there is a need for dives beyond this limit the dives must be approved in advance by the Diving Safety Committee.

(3) No solo diving will be permitted.

(4) No diving will be conducted without the submittal and authorization of a Dive Plan.

(5) No dive exceeding the 130 foot depth will be permitted in the absence of a working decompression chamber attended by trained personnel.

(6) Cave and under ice diving will generally not be permitted. Submit all requests for special dives to the Unit Diving Officer and forward copies to the Diving Safety Committee Chairperson.

(7) Dives in waters of great depths, where the diver is not in visual contact with the bottom (over bottom dives) and where a diver could lose his/her orientation or descend beyond safe limits, will be conducted with some provision for direct contact with the surface such as a buoyed weighted line with depth markings.

c. Dive Teams. A standard SCUBA diving team shall consist of a minimum of three members: the Dive Supervisor, the diver buddy, and the Tender. Some situations may require a third diver in the water, but at no time shall any diver in the water lose visual or tactile contact with at least one other diver. If such contact is lost, all divers must immediately surface. In the situation requiring diving from a boat, the vessel operator's principle responsibility is for the safety of his/her vessel and its occupants. Hence, depending on the size of the vessel and the conditions, it may be deemed inappropriate by the Unit Diving Officer, the Dive Supervisor, or the vessel operator, for the latter to serve also as the Tender. When this is the case, the Dive Supervisor will advise the vessel operator as to the safety precautions specified in this Chapter. At the discretion of the Unit Diving Officer, a single diver may enter the water if line tended from the surface. However, a fully equipped stand-by diver must be at the dive site ready to give immediate assistance.

d. Equipment. All items of equipment shall be visually and operationally inspected before each actual use and must be in proper operating condition. All dive team members shall be familiar with their use. The following equipment shall be present at the dive site for all dives.

(1) Personal equipment.

(a) Flotation/Buoyancy Compensation Device - Each diver must wear an adequate flotation device capable of being filled by at least two methods.

(b) Tank Harness and Weight Belts - must have a quick release mechanism.

(c) Tank Pressure Gauge - must be worn at all times and monitored frequently.

(d) Depth Gauge - shall be worn by each diver when diving in unfamiliar territory, at unknown depth, in areas of great tidal fluctuation, in areas of uneven bottom, or under any other conditions which might cause the diver to exceed his/her planned depth. It is recommended that a depth gauge be worn during all diving operations.

(e) Diving Watch - shall be worn by each diver in situations where there is any likelihood of exceeding the no decompression limit.

(f) Decompression Meter - shall not be used in lieu of proper planning of the dive and timekeeping at the dive site.

(g) Compass - shall be worn by each diver. Divers can become disoriented in direction at any depth.

(2) Support Equipment.

(a) Dive Flag - an appropriate dive flag shall be shown at all times. This is especially critical while actively diving in areas subject to boating or other hazardous traffic or when required by local regulation. An appropriate dive flag is a square red flag with a white diagonal stripe at least 12" square (depending on the size of the vessel) in all waters except those frequented by international traffic. In this case, the international code flag "Alpha" will be used in addition to the dive flag. In any case, divers will make every effort to avoid diving in areas in which traffic would cause a safety hazard.

(b) First Aid Kit - shall be approved by the Unit's physician who performs the annual physicals. A copy of the American National Red Cross publication, Standard First Aid and Personal Safety shall be included and a copy of the NOAA/Sea Grants Book, First Aid for Boaters and Divers. Also emergency oxygen should be on board.

(c) Ladder - shall be provided when diving from a vessel, dock or other surface where elevation above the surface of the water presents a difficulty to the diver. The ladder must extend sufficiently below the surface of the water to support the diver while still in the water.

(d) Safety Plan - a copy of this Diving Safety Chapter, the U.S. Navy Decompression Tables and emergency aid information shall be present at each dive site.

(e) Communications - at each dive site, shore or vessel, located beyond the range of other reasonable voice communication, a 2-way radio will be provided for use in summoning emergency aid.

(f) Additional support tanks - should be on board and be available.

(g) Underwater transponder/communicator should be on board.

e. The Dive Plan/Log. Divers are required to log all dives. The EPA Diving Plan/Log will be initiated by the prospective Dive Supervisor desiring to conduct a dive and submitted to the Unit Diving Officer for approval. After the dive is completed, details of the dive will be recorded and the Dive Supervisor will certify that the regulations of the Manual were adhered to and submit it each month to the Unit Diving Officer.

APPENDIX A - DIVING SAFETY RULES

1. Certification. Each diver must have a valid EPA certification or EPA equivalent.

2. Solo Diving. No one may dive unattended.

3. Depth Limits. Dives shall not exceed 130 feet. Proposals for planned dives to depths greater than 130 feet will require written approval by the Unit Diving Officer or designee.

4. Decompression Tables. Decompression tables should be copied for use by a photographic method which reproduces an exact copy. If this method is not available, then the hand copied schedules should be checked for accuracy and signed by several persons.

5. Decompression Dives. Diving activities which exceed the limits of no-decompression must be approved in advance by the EPA Diving Committee.

6. Over-Bottom Dives. Dives in waters where a diver could sense a loss of orientation or descend below safe diving depths are to be considered over-bottom dives. No over-bottom dives shall be made unless some direct contact with the surface is maintained, such as net web, a marked line suspended from a surface float, or depth gauges for all participants, which permits the diver to determine whether ascension or descension occurs. All such divers must be equipped with a buoyancy compensating device.

7. Boat Tending. During dives beyond swimming distance from shore or those in areas of strong currents, a small boat with a qualified operator will tend the diver.

8. Recompression Chamber. The location, availability and telephone number of all accessible and operable recompression chambers shall be maintained by the dive supervisor who instructs the dive team.

9. Emergency Procedures. The Unit Diving Officer, with the approval of the EPA Diving Safety Committee, will prescribe emergency procedures to be used in handling diving-related accidents in the operational area, and all divers shall be familiar with these procedures. All emergency lists and procedures shall be available at the dive location.

10. First Aid Training. All divers should have appropriate First Aid and CPR training.

11. Equipment.

a. Life Support. Open circuit SCUBA using compressed air shall be standard. Other types of equipment (i.e., surface-supplied diving equipment, closed-circuit rebreathers, semiclosed units or other types of diving apparatus utilizing gas mixtures) may be approved for use by the Diving Safety Committee Chairperson. Individuals requesting use of closed-circuit rebreathers, semiclosed units, or other types of equipment must have been trained and qualified in the use of such equipment. Dive supervisors shall also be trained in the use of such equipment and shall be ready to assist in case of an emergency.

b. Harness and Weight Belt. All harness and weight belts must have a quick release, operable by a single motion by either hand.

c. Flotation Device. Each diver shall wear an adequate inflatable vest or other flotation device.

d. Compass. An underwater compass shall be carried by each diver when, in the opinion of the Dive Supervisor, lack of underwater orientation is likely to occur and may create a hazard.

e. Depth Gauge. One underwater depth gauge shall be carried by each diver when diving in an area of unknown depth or an area of uneven bottom contours when a diver might reasonably exceed the planned dive depth.

f. Decompression Meter. Use of decompression meters will be authorized only by the Diving Safety Committee Chairman. Decompression meters will not be used for dives which require decompression stops. Decompression meters can be used as an alternative method of determining the allowable time at depths before a decompression stop is required. In all cases at least two meters must be used simultaneously with the more conservative meter used to determine the allowable dive time. Decompression meters must be recalibrated every eighteen (18) months by a qualified technician.

g. Diving Watch. A diving watch shall be worn by each member of a diving team.

h. Diving Flag. A diving flag shall be shown while actively diving in areas subject to boating or other hazardous traffic.

i. Air Compressor. No person shall operate a SCUBA air compressor without having first read the instructions and assisted an operator experienced in its operation. An operational log shall be maintained EPA SCUBA compressors.

12. Equipment Maintenance. All diving gear and accessory equipment shall be maintained in a safe operating condition. Manufacturers recommended servicing policy shall be followed. Equipment in questionable condition shall be repaired, overhauled, or discarded. All regulatory valves, depth gauges, and decompression meters must be critically examined, calibrated, or checked for accuracy by a competent mechanic or appropriate specialist every eighteen (18) months. A record of the inspection and repair will be filed with the Unit Diving Officer.

13. Air Tank Inspection and Testing. The interior of all cylinders must be visually inspected annually by a trained person; cylinders shall be hydrostatically tested at least every three (3) years. The date of the last test must be recorded on the tank.

14. Air. Tanks shall be charged only with air certified as meeting established air standards.