THE UNIVERSITY OF NORTH CAROLINA
SCHOOL OF DENTISTRY
CHEMICAL HAZARD COMMUNICATION PROGRAM

EFFECTIVE: 1 MAY 1992

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Millions of workers are potentially exposed to one or more chemical hazards each day. There are an estimated 575,000 existing chemical products, and hundreds of new ones being introduced annually into the workplace. The Hazard Communication Standard (HCS) is based on the premise that employees have a right to know the identity of the chemicals in their workplace and the hazards that they may pose. Employees also have the right to know what protective measures are needed to prevent the occurrence of any adverse effects from hazardous chemicals.

Chemical exposure may cause or contribute to serious health effects ranging from heart ailments, kidney and lung damage, sterility, cancer, burns, to rashes. Some chemicals may also pose safety hazards and have the potential to cause fires and explosions.

The Chemical Hazard Communication Standard established uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in U.S. workplaces are evaluated, and that this hazard information is transmitted to affected employers and exposed employees. Chemical manufacturers and importers must convey the hazard information they learn from their evaluations by means of labels on containers and Material Safety Data Sheets (MSDSs). All covered employers must have a hazard communication program to get this information to their employees through labels on containers, MSDSs and training.

The Chemical Hazard Communication Program ensures that all employers receive the information they need to inform and train their employees properly and to design and put into place employee protection programs. It also provides necessary hazard information to employees so they can participate in and support the protective measures enforced in their workplaces. When employees have information about the chemicals being used, they can take steps to reduce exposures, substitute less hazardous materials, and establish proper work practices. These efforts will help reduce the occurrence of work-related illnesses and injuries caused by chemicals.
II. COMMITMENT

The University of North Carolina Dental School is firmly committed to providing each of its employees a safe and healthy work environment. The Occupational Safety and Health Administration's Hazard Communication Standard, 29 CFR 1910.1200, issued on November 24, 1983 specifies in section 1910.1200 (e) that employers shall develop and implement a "written hazard communication program". The purpose of the written program is to describe how the OSHA hazard communication standard requirements shall be met.

III. HAZARD COMMUNICATION

This manual describes the UNC School of Dentistry's Chemical Hazard Communication Program. All, or any part of this written Chemical Hazard Communication Program is available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health (OSHA), and the Director of the National Institute for Occupational Safety and Health (NIOSH). The manual is available (see section IX for availability and location) from the Dental School for review and copying.

IV. PURPOSE

The purpose of this program is to ensure that UNC School of Dentistry's employees are effectively informed concerning workplace safety and health hazards, specifically chemical hazards.
V. FUNDAMENTALS

The Hazard Communication Program requires employers to provide the following:

1) A written hazard communication plan
2) Labels and other forms of warning
3) Material Safety Data Sheets (MSDSs)
4) Employee information and training

There are two types of work operations where the coverage of the rule is limited. They are laboratories and operations where chemicals are only handled in sealed containers. Consult the Hazard Communication Standard and Occupational Exposure to Hazardous Chemicals in Laboratories (OSHA Laboratory Standard) standard for more detailed information. Both standards can be found in the office of the Chair, Hazard Communication Committee.

VI. APPLICATION

This Hazard Communication Program applies to:

- Known occupational safety and health hazards
- Chemicals known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency

VII. SCOPE

The Hazard Communication Program covers all temporary, probationary, full-time employees of the School of Dentistry at risk for chemical exposure. Part-time employees are required to complete Chemical Hazard Communication training on their own. Employees of the Dental Research Center who are engaged in laboratory research with chemical exposure are specifically covered under the OSHA Laboratory Standard and not the Chemical Hazard Communication Standard. Compliance with the Hazard Communication Program is a condition of employment for all employees with occupational exposure.
VIII. PLAN ADMINISTRATION

Administration of the School's Hazard Communication Program rests with the Assistant Dean for Administration and the Hazard Communication Committee who will manage and coordinate all aspects of the plan in cooperation with the University Health and Safety Office. Employees covered under the provisions of this plan should contact the Chair of the Hazard Communication Committee or any committee member with any questions, problems or concerns.

The Hazard Communication Program will be reviewed and revised as necessary to reflect changes in procedures or job duties that may affect employees' potential exposure to chemical hazards.

IX. AVAILABILITY

Information about The Chemical Hazard Communication Committee can be found in the University of North Carolina School of Dentistry Web site including the 50 most commonly used MSDS’s. [http://www.dent.unc.edu/admin/](http://www.dent.unc.edu/admin/). The chair of The Chemical Hazards Communication Committee maintains a copy of the written program. A list of the MSDSs is located in the following locations:

- Third floor dispensary
- Fourth floor dispensary
- Second floor DFP (at check in desk)
- First floor Clinical Services Administration
- Ground floor Urgent Care

X. MULTI-EMPLOYER WORKPLACES

See the Hazard Communication Standard for employers who produce, use or store hazardous chemicals at a workplace in such a way that the employees of other employers, such as janitorial agencies, may be exposed.
XI. NON-ROUTINE TASKS

All jobs or projects involving hazardous chemicals that are being done for the first time shall be considered a non-routine task. Chemical safety training must be provided for these non-routine tasks. Training will be conducted by department and/or service area representatives or by Hazard Communication Committee members.

XII. MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets are written or printed documents that identify hazardous chemicals prepared and distributed by chemical manufacturers or distributors. All chemical manufacturers, importers, and distributors must obtain or develop a MSDS for each hazardous chemical they produce or import. A hazardous chemical means any chemical which is a Physical Hazard: combustible, flammable, explosive, reactive, pressurized (compressed gases), and/or Health Hazard: toxic, carcinogenic, corrosive, irritant, and sensitizing.

The Hazard Communication Committee maintains an MSDS file for all hazardous chemicals used or handled in the Dental School (See section IX for specific locations) and has created a website linked to a few MSDS databases that provide easy access to MSDSs, these data sheets are in English and contain the following information:

- The identity of the chemical
- The physical and chemical characteristics
- Physical and health hazards
- Primary routes of entry
- Exposure limits
- Precautions
- Controls
- Emergency and first aid procedures
- Name of manufacturer or importer
A "trade secret" gives an employer an opportunity to obtain an advantage over competitors who do not know about the trade secret or who do not use it. For example, a trade secret may be a confidential device, pattern, information, or chemical make-up. Chemical industry trade secrets are generally formulas, process data, or a "specific chemical identity." The latter is the type of trade secret information referred to in the Hazard Communication Standard. The term includes the chemical name, the Chemical Abstracts Services (CAS) Registry Number, or any other specific information that reveals the precise designation. It does not include common names.

The Standard strikes a balance between the need to protect exposed employees and the employer's need to maintain the confidentiality of a bona fide trade secret. This is achieved by providing for limited disclosure to health professionals who are furnishing medical or other occupational health services to exposed employees, employees and their designated representatives, under specified conditions of need and confidentiality.

The University of North Carolina honors manufacturer's claims to withhold chemical information to avoid disclosing trade secrets provided the relevant health and safety data are included on the MSDS.
XIV. LABELS AND OTHER FORMS OF WARNING

Chemical manufacturers, importers, and distributors provide labels, tags, or other markings for containers of hazardous chemicals. This identification includes the following information:

- Identity of hazardous chemical
- Appropriate hazard warnings
- Name and address of the chemical manufacturer, importer, or other responsible party.

Departments and/or service areas are responsible to see that containers of hazardous chemicals in the workplace are labeled, tagged, or marked with the identity of the hazardous chemical and the appropriate hazard warning. See Section Two-D for information on how to properly label hazardous chemical containers.

Portable containers of hazardous chemicals do not have to be labeled if they contain chemicals transferred from labeled containers and are intended only for the immediate use of the employee who performs the transfer within one day.

All labels on incoming containers must not be defaced in any way. Observation or other detection of defaced labels must be immediately reported to the departmental and/or service area supervisor so appropriate labels can be reapplied immediately.
XV. EMPLOYEE INFORMATION, EDUCATION, AND TRAINING

All employees who work in areas where there are hazardous chemicals are to receive documented chemical safety training. This training is to be done at the time of initial employment and before a new hazard is introduced into the workplace. Some specific information in the safety and health training includes:

- General safety and health rules and procedures,
- General chemical hazards,
- Recognition, evaluation, and control of hazards,
- Chemical labeling,
- Hazards associated with unlabeled piping and process systems,
- Material Safety Data Sheets,
- Access to safety and health information,
- Compliance with safety and health rules and procedures,
- Requirements of the OSHA hazard communication standard,
- Specific operations in work areas where hazardous chemicals are present
- The location and availability of the Dental School written Hazard Communication Program and all contents.

Department and/or service area representatives, working with the Hazard Communication Committee, will train new employees when they are assigned to their work areas. Employees will also be trained in the methods and observations the employee may use to detect the presence or release of hazardous chemicals in the workplace. The measure employees can take to protect themselves from hazards, including pertinent work practices, department emergency procedures, and personal protective equipment will be covered as well.

All employees are to be informed about, and will receive a copy of, the UNC Dental School's Chemical Hazard Communication Program, as well as an explanation about the hazardous chemical labeling system and how appropriate chemical hazard information may be obtained by employees.
XVI. RETRAINING

Additional employee training concerning workplace hazards will be necessary when:

- New chemical hazards are introduced into the workplace;
- Process or equipment changes are made which could cause new or increased exposures;
- Procedures and work practices are introduced or changed which could cause changes in employees' exposure;
- Employees are transferred from one work area to another, where different hazards are present.

XVII. CONTRACTORS

Each contractor must comply with all OSHA standards while working on Dental School property. Also, proper controls will be established to assure Dental School operations do not expose contractor employees and that the contractor's operations do not expose Dental School employees to safety and health hazards.

Copies of MSDSs concerning any chemicals the contractor's employees may be exposed to will be provided to the contractor employer by the UNC's Dental School Hazard Communication Committee upon request.
SECTION TWO
I. COMPLYING WITH THE STANDARD

In order for the UNC School of Dentistry to comply with the Standard, seven steps will be followed. These steps are:

A) Identify responsible team members to coordinate the program
B) Conduct and maintain a chemical inventory list
C) Obtain necessary Material Safety Data Sheets (MSDSs)
D) Label appropriate containers
E) Develop and maintain a written Hazard Communication Program
F) Train employees
G) Recordkeeping and reporting

A) IDENTIFY RESPONSIBLE STAFF

Chemical Hazard Communication (CHC) is going to be a continuing program in our facility. In order to have a successful program, it will be necessary to assign responsibility for both the initial and ongoing activities that have to be undertaken to comply with the rule. Early identification of responsible employees, and involvement of them in the development of our plan, will result in a more effective program. Employees must understand the program and be committed to its success.

The main overseer for UNC School of Dentistry's Hazard Communication Program will be the Hazard Communication Committee. The committee's primary responsibilities will be to:

1) Provide training and information to all covered employees.
2) Keep an updated chemical inventory list.
3) Keep updated Material Safety Data Sheets.
4) Maintain, and update as needed, the School's written Hazard Communication Program.
5) Coordinate labeling of hazardous chemicals.
6) Coordinate emergency procedures related to hazardous materials.
7) Maintain the list of departmental and/or service area hazard communication representatives.
8) Serve as a resource to help any department, service area, or employee as needed.
9) Recordkeeping and other forms of documentation.

Current members of the UNC School of Dentistry's Hazard Communication Committee include:

Mr. Al Elsenrath
Mr. Robbie Huskisson
Dr. Rick Platin
Dr. Allen Samuelson
Dr. Terence Donovan: Chair

Any correspondence should be addressed to the Chair, Hazard Communication Committee, 437 Brauer Hall CB#7450. The Chair will maintain a copy of the School's written program.

Responsibilities of Directors and Department Heads include:

1) Ensuring all personnel in their department are aware of the Hazard Communication Program and its implications.
2) Audit the progress of the Hazard Communication Program within their area or department.
3) Identify at least one contact person or representative for Hazard Communication business.

Employee responsibilities include:

1) Knowing the purpose, and adhering to the intent, of the Hazard Communication Program.
2) Using personal protective equipment when required.
3) Correctly labeling secondary containers
4) Informing supervisors when an accident and or exposure occurs.
5) Following proper protocol when handling a chemical spill.
6) Reporting any unlabeled container and malfunctioning equipment.

Each department and or service area will identify at least one member to serve as a contact person for Chemical Hazard Communication related matters. Each department or service area contact person will receive additional training in Chemical Hazard Communication protocol. Responsibilities of these contact persons or representatives will include:

1) Updating the chemical inventory list in their area as new chemicals and products are received, and passing the information on to the Hazard Communication Committee.
2) Collecting MSDSs sent with new chemicals or products in their area and sending them to the Hazard Communication Committee.
3) Ensuring the labeling requirements are correctly carried out in their area.

4) Passing all pertinent information along to the Hazard Communication Committee.

See Table One for the schematic model and flow chart of UNC School of Dentistry's employee involvement in Chemical Hazard Communication.
Table One:
Schematic model and flow chart of UNC School of Dentistry's employee involvement in Chemical Hazard Communication Activities.

Dean
UNC School of Dentistry

Assistant Dean,
Administration

Hazard Communication
Committee

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<th>Ecology Chair</th>
<th>Orthodontics Chair</th>
<th>Oral Diagnosis Chair</th>
<th>Oral Surgery Chair</th>
<th>Endodontics Chair</th>
<th>Periodontics Chair</th>
<th>Dental Faculty Practice Director</th>
<th>Clinical Services Director</th>
<th>Learning Resources Center Director</th>
<th>Support Services Director</th>
<th>Dental Labs Director</th>
<th>Clinical Research Unit</th>
<th>Pedodontics Chair</th>
<th>Central Research Unit</th>
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Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee Employee
B) IDENTIFICATION OF HAZARDOUS CHEMICALS IN THE WORKPLACE

The Standard requires a list of hazardous chemicals in the workplace as part of the written Hazard Communication Program. The CHC Standard covers chemicals in all physical forms—liquids, solids, gases, vapors, fumes, and mists—whether they are "contained" or not. The hazardous nature of the chemical and the potential for exposure are the factors, which determine whether a chemical is covered. If it's not hazardous, it's not covered. If there is no potential for exposure (e.g., the chemical is inextricably bound and cannot be released), the rule does not cover the chemical.

The Standard includes exemptions for various chemicals or workplace situations. After compiling the complete list of chemicals, you should review the Standard to determine if any of the items can be eliminated from the list because they are exempted materials (the Hazard Communication Committee will provide assistance if needed). For example, food, drugs, and cosmetics brought into the workplace for employee consumption are exempt; also rubbing alcohol in the first aid kit would not be covered. Foods and drugs regulated by the Food and Drug Administration or chemicals registered by the Environmental Protection Agency require no additional labeling.

As new chemicals are received, the chemical inventory must be updated and the identity of the new chemicals forwarded to the Hazard Communication Committee. Read labels provided by the suppliers for hazard information. Make a list of all chemicals in the workplace that are potentially hazardous, noting on the list the location(s) of the products within the workplace, an indication of the hazards as found on the label and the manufacturer.
C) OBTAINING NECESSARY MATERIAL SAFETY DATA SHEETS

Using the completed list of potentially hazardous chemicals in the workplace, determine if Material Safety Data Sheets (MSDSs) have been received for them. Forward all MSDSs to the Hazard Communication Committee. As new chemicals are purchased, the chemical list will need to be updated.

Employees should not use any chemical(s) for which there is not a MSDS. The MSDSs provide information you need to ensure proper protective measures are implemented prior to exposure. If a MSDS does not accompany a new chemical, contact the manufacturer or University Health and Safety (962-5507) to receive the appropriate MSDS. See pages 20 & 21 for sample letters requesting MSDSs. MSDSs will be readily accessible to employees during their work shifts. Copies of the UNC School of Dentistry's Hazard Communication Program and MSDSs are located in the following offices and locations:

- Assistant Dean for Administration  Telephone 966-2741
- Chairman, Hazard Communication Committee  Telephone 966-2746
- Support Services  Telephone 966-3067
- Second Floor Main Clinic  Telephone 966-3819

D) LABELS AND FORMS OF WARNING

All hazardous chemical containers located within the UNC School of Dentistry must be labeled such that the following information is available:

1) Identity of the material
   ex. Tytin Amalgam

2) Identity of the hazardous chemical
   ex. Mercury

3) Appropriate hazard warning(s) and target organ
   ex. Poison, nervous system
The identity of the hazardous chemical is any term which appears on the label, the MSDS, and the chemical inventory list, thus linking these three sources of information. The hazard warning is a brief statement of the hazardous effects of the chemical ("flammable," "causes lung damage"). Labels frequently contain other information, such as precautionary measures ("do not use near open flame"), but this information is provided voluntarily and is not required by the rule. Labels must be legible, written in English, and prominently displayed. There are no specific requirements for size or color, or any specified text. If this information is already printed on the container, then no additional labeling is required.

The most important thing to remember is that this is a continuing duty— all containers of hazardous chemicals must be labeled. Therefore, it is important that the department and service area representatives and all employees in general, be responsible for ensuring that the labels are maintained as required on the containers in your area (chemical identity, material identity, and appropriate hazard warning.) Labels are readily available through the Dental School supply room. Exemptions to the requirement for individual container labels are as follows:

- Employers can post signs or placards that convey the hazard information if there are a number of stationary containers within a work area that have similar contents and hazards.

- Employers can substitute various types of standard operating procedures, process sheets batch tickets, blend tickets, and similar written materials for container labels on stationary process equipment if they contain the same information and are readily available to employees in the work area.

- Employers are not required to label portable containers into which hazardous chemicals are transferred from labeled containers and that are intended only for the immediate use of the employee who makes the transfer.

- Employers are not required to label pipes or piping systems.
E) THE WRITTEN HAZARD COMMUNICATION PROGRAM

All workplaces where employees are exposed to hazardous chemicals must have a written plan describing how the standard will be implemented in that facility. The following elements are included in the UNC School of Dentistry's written program: provisions for container labeling; collection and availability of material safety data sheets; chemical inventory list; and an employee training program. The UNC School of Dentistry's written Hazard Communication Plan is located in the following offices and location:

- Assistant Dean For Administration: Telephone 966-2741
- Chairman, Hazard Communication Committee: Telephone 966-4552
- Support Services: Telephone 966-3067
- Second Floor Main Clinic: Telephone 966-3819

F) EMPLOYEE INFORMATION AND TRAINING

Information and training are a critical part of the UNC School of Dentistry's Hazard Communication Program. Information regarding hazards and protective measures is provided to employees through written labels and Material Safety Data Sheets. However, through information and training sessions, employees will learn to read and understand such information, determine how it can be obtained and used in their own workplaces, and understand the risk of exposure to the chemicals in their workplaces as well as the ways to protect themselves. The underlying purpose of the Hazard Communication Program is to reduce the incidence of chemical source illnesses and injuries. This will be accomplished through the provision of hazard information and information about protective measures. Each employee who may be "exposed" to hazardous chemicals when working must be provided information and be trained prior to initial assignment and whenever the hazard changes. "Exposure" or "exposed" under the rule means that "an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.) and includes potential (e.g., accidental or possible) exposure."

Information and training will be done by categories of hazards (such as flammability or carcinogenicity) through lecture, audiovisuals and discussion sessions.

The training session will be conducted by members of the Hazard Communication Committee and/or departmental representative and/or service representative or through Self – Instruction e.g., (Web Based).
Department Chairs and Service Area Directors will be responsible for providing names of part-time faculty to the Hazard Communication Committee such that these faculty members can be trained as well if they wish.

In reviewing the written program with regard to the information and training session, the following items will be covered:

- General safety and health rules and procedures,
- General chemical hazards,
- Recognition, evaluation, and control of hazards,
- Container labeling,
- Hazards associated with unlabeled piping and process systems,
- Material Safety Data Sheets,
- Access to safety and health information,
- Compliance with safety and health rules and procedures,
- Requirements of the OSHA Hazard Communication Standard,
- Specific operations in work areas where hazardous chemicals are present,
- The location and availability of the Dental School written Hazard Communication Program and all contents.

Retraining

It will be necessary for department and service area representatives to provide additional employee training concerning workplace hazards when:

- New chemical hazards are introduced into the workplace,
- Process or equipment changes are made which could cause new or increased employee exposures,
- Procedures and work practices are introduced or changed which could cause changes in employees' exposure,
- Employees are transferred from one work area to another, where different hazards are present.

The supervisor conducting the training will make a written record of the training provided and request the employee receiving the training to sign and date the record. A permanent record of all employees training is maintained in the office of the Chair, Hazard Communication Committee. Records for retraining should be sent to the Hazard Communication Committee.
G. RECORDKEEPING AND REPORTING PROGRAM

Employers are responsible for keeping employees informed about OSHA and about the various safety and health matters with which they are involved. Federal OSHA and states with their own occupational safety and health programs require that each employer post certain materials at a prominent location in the workplace. These include:

- **Job Safety and Health Protection workplace poster (OSHA 2203 or state equivalent)** informing employees of their rights and responsibilities under the Act. Besides displaying the workplace poster, the employer must make available to employees, upon request, copies of the Act and copies of relevant OSHA rules and regulations. Any official edition of the poster is acceptable. **North Carolina workplace posters are located in the public hallways outside the UNC School of Dentistry's Personnel office and Support Services office.**

- **Summaries of petitions for variances from standards or recordkeeping procedures.** Posted outside UNC School of Dentistry's Personnel office.

- **Copies of all OSHA citations for violations of standards.** These must remain posted at or near the location of alleged violations for three days, or until the violations are corrected, whichever is longer.

- **Log and Summary of Occupational Injuries and Illnesses (OSHA #No. 200).** The summary page of the log must be posted no later than February 1, and must remain in place until March 1. OSHA Form 200 is posted yearly by the Health and Safety Office.

All employees have the right to examine any records kept by their employers regarding exposure to hazardous materials, or the results of medical surveillance.

II. UNIVERSAL PRECAUTIONS FOR HAZARD COMMUNICATION

1) Minimize all chemical exposures
2) Avoid underestimation of risk
3) Provide adequate ventilation
4) Abide by general principles
5) Keep exposures below PELs or TLVs
6) Handle chemicals only according to manufacturer's instructions
7) Avoid skin contact with chemicals. As specified: Use appropriate protective gloves, goggles, mask, apron
8) Do not smoke or eat where chemicals are used
9) Minimize chemical vapor exposure:

- Recap containers quickly, keep original vessels
- Don't use in open or poorly sealed supplementary containers
- Store in a cool place

10) Do not use flammable liquids near flame or sparks

11) Observe proper cleanup and disposal directions and precautions listed in MSDS and in local regulations

"Adapted from ADA, Regulatory Compliance Manual 1990, American Dental Association, Chicago."
(Summarized in ADA News, April 25, 1988 pp. 9-11.)

III. SILVER RECLAMATION AND LEAD RECOVERY POLICY (Drafted by: Chemical Hazards Communications Committee, July 21, 1999, Revised January 2010).

Purpose

This policy was drafted to establish standards and protocols that can be distributed throughout the School of Dentistry regarding the proper disposal of lead and silver containing wastes.

Introduction

Silver reclamation and lead disposal both fall under EPA jurisdiction since both lead and silver are “hazardous wastes” when “discarded”. The EPA regulation that deals with identification of hazardous waste of this type is 40 CFR 261. It is included in the EPA Hazardous Waste regulations in a group of 41 such materials referred to as TCLP (Toxic Characteristic Leachate Procedure) wastes. The threshold concentrations for solutions and solids containing silver or lead are 5mg/liter or .0005%. Therefore, very little solution is necessary to produce a hazardous waste. Both lead and silver have a hazardous waste exemption for reclamation. If the materials are reclaimed they are subject to a less stringent regulation by the EPA.

Silver Reclamation / Lead Recovery

In light of the above federal regulations, the following policy of silver and lead reclamation is in effect for the UNC School of Dentistry. Any area that generates lead or silver wastes must establish a means of securing these wastes and transporting them to the Division of Radiology for proper disposal and/or reclamation. The protocol for bringing fixer, lead foil, scrap film and amalgam is outlined below.

A. **Used fixer.** Used fixer should be transported in gallon containers to Radiology. Bring fixer weekly since the main recyclable unit in Radiology only holds five gallons at a time. Do NOT bring developer.

B. **Lead Foil.** Save lead foil from inside film packet and bring to Radiology where University Health and Safety will pick it up.

C. **Used or rejected radiographic film.** Collect (do not throw in trashcan) any rejected or unwanted film and bring to radiology for recycling.

D. **Used amalgam.** The School of Dentistry requires a container for each of the following:
   1. Contact & non-contact amalgam containing materials
2. Teeth containing amalgam
3. Contaminated solids traps

Clinical and pre-clinical areas are required to dispose of waste amalgam according to the following procedures:

- Contact and non-contact amalgam containing materials as well as the amalgam capsules are to be placed in the same wide mouth container with a screw top lid. A label measuring a minimum of 2” x 4” must be affixed to the container that reads: “CONTACT & NON-CONTACT AMALGAM CONTAINING MATERIALS FOR RECYCLING”.

- All extracted teeth including teeth containing amalgam are to be placed in a wide mouth container with a screw top lid. A disinfecting solution must cover the teeth while being stored. A label measuring a minimum of 2” x 4” must be affixed to the container that reads: “TEETH CONTAINING AMALGAM”. These containers are to be periodically delivered to the Endodontic Department so that they can be used for teaching purposes by any requesting department. Extracted teeth will be sterilized prior to being distributed. At the completion of the course, teeth containing amalgam are to be placed in a wide mouth container with a screw top lid. A label measuring a minimum of 2” x 4” must be affixed to the container that reads: “TEETH CONTAINING AMALGAM FOR RECYCLING”. Teeth that do not contain amalgam must be disposed of as a biohazard material and placed in a red bag.

- Chair-side solids traps are to be placed in a wide mouth container with a screw top lid. A label measuring a minimum of 2” x 4” must be affixed to the container that reads: “CONTAMINATED SOLIDS TRAPS FOR RECYCLING”. Qualified service technicians will remove, clean, and replace simulator solids traps and dispose of all scrap amalgam according to the instructions listed above.

- Support Services will periodically request all amalgam waste materials and traps be delivered to a designated site for pick-up by the University’s Environmental Health & Safety Department.

If you have any questions contact Ms. Madge Webster at 966-2766 or Dr. Terence Donovan at 966-4552

Examples of materials to be sent to Radiology:

A. Fixer solution, lead foil from film packets, old or unused radiographic film
   - Photographic fixer solution
C. Lead or silver containing solder
D. Research material containing silver or lead with the potential for hazardous waste generation
   - Used amalgam

IV. LIST OF HAZARDOUS CHEMICALS* FOUND IN DENTISTRY
The following is a list of chemical substances identified by OSHA as hazardous that may be found in the dental office. It is based on two sources mentioned in the OSHA regulation: the OSHA Safety and Health Standards 29 CFR 1910 Subpart Z1 and the Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH). This list is not all-inclusive.

* A.D.A. Hazards Communication Program

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>MAY BE FOUND IN</th>
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<td>photographic solutions</td>
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<tr>
<td>Acetone</td>
<td>solvents</td>
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<tr>
<td>Aluminum soluble salts</td>
<td>astringent agents</td>
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<tr>
<td>Benzoyl peroxide</td>
<td>resin systems, denture resins</td>
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<tr>
<td>Beryllium</td>
<td>nickel-based casting alloys</td>
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<td>Calcium carbonate</td>
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<tr>
<td>Chromium</td>
<td>casting alloys</td>
</tr>
<tr>
<td>Copper</td>
<td>amalgam, casting alloys</td>
</tr>
<tr>
<td>Cresol, all isomers</td>
<td>endodontic materials</td>
</tr>
<tr>
<td>Ethyl acrylate</td>
<td>resins</td>
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<tr>
<td>Ethyl alcohol</td>
<td>solvents, sterilizing agents,</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>sterilizing agents</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>pickling solutions</td>
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<td>Hydrogen chloride</td>
<td>pickling solutions, bleaching agent</td>
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<td>Hydrogen fluoride</td>
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<tr>
<td>Hydroquinone</td>
<td>methacrylate and denture base resins,</td>
</tr>
<tr>
<td></td>
<td>photographic solutions</td>
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<tr>
<td>Iodine</td>
<td>iodophor disinfectants and antimicrobial</td>
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<td></td>
<td>hand cleansers</td>
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<td>Mercury, organic</td>
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<td>Methyl acetate</td>
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<td>Methyl alcohol</td>
<td>denatured alcohol</td>
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<tr>
<td>Methyl methacrylate</td>
<td>denture base resins</td>
</tr>
<tr>
<td>Methylene chloride</td>
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<td>Nitrous oxide</td>
<td>nitrous oxide</td>
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<td>Oil mist, mineral</td>
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<td>Petroleum distillates</td>
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<tr>
<td>Phenol</td>
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<tr>
<td>Phosphoric acid</td>
<td>etching agents, phosphate cements</td>
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<tr>
<td>Phthalic anhydride</td>
<td>resins</td>
</tr>
<tr>
<td>Platinum</td>
<td>casting alloys</td>
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<tr>
<td>Tin, inorganic compounds</td>
<td>amalgam, polishing pastes</td>
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<tr>
<td>Tin, organic compounds</td>
<td>impression materials (condensation silicones)</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>porcelain, impression materials</td>
</tr>
<tr>
<td>Trichloromethane</td>
<td>solvents</td>
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</tbody>
</table>
V. SAMPLE LETTER TO MANUFACTURER FOR MSDS

Sample letter to Manufacturer or Distributor

June 30, 1988

Acme Distribution Co.
29 Acme Drive
Deerfield, WI 38050

Dear Sir or Madam:

I purchased (amount/size) of (name of product) on (date) from your company. I took delivery of the product on (date) but did not receive any Material Safety Date Sheets (MSDS) with my order.

Please send me the appropriate MSDS immediately so I will be in compliance with OSHA regulations regarding training of my employees about the hazards of this product.

Thank you for your cooperation.

Sincerely,

John L. Smith, DDS
1234 Maple Tree Lane
Scranton, WI 23456
VI. DENTAL OFFICE SAFETY

The following general descriptions deal with several groups of chemicals that may be in products handled in the dental office. The hazard potential is dependent on the amount of exposure and individual variability. In most dental offices the amounts of chemicals and the risks should be small. The risks and hazards can be further minimized if recommended procedures and precautions are taken.

For information on specific products, always refer to the Material Safety Data Sheets (MSDS). If any of the information here varies from that on the MSDS, always rely on the MSDS first and foremost.

**Surface disinfectants:** The following procedures for mixing and use of ProPhene disinfectant in all Patient care areas in the School of Dentistry have been approved by the Chemical Hazards Communications Committee. It is extremely important that everyone adheres to these detailed instructions, particularly the avoidance of spraying the ProPhene solution such that an aerosol is created. (Instituted May 17, 2000).

Examples: Cleaning solution used to disinfect surface areas such as work tables, chairs etc.

Hazards: Tissue irritant may cause mild irritation to skin and eyes and lung irritation if inhaled.

Do:

- "Manufacture's instructions for the appropriate mixing are to be followed explicitly when mixing this product! Always check the manufacture's label for changes to the procedures for handling and mixing of this product before mixing."

- As most clinics will be required to mix large amounts of this product, it is highly recommended that we use the procedure for mixing one gallon of the disinfectant. The procedure is as follows:

  1. Before mixing, insure the area in which the product will be mixed is adequately ventilated. Protective gear (which includes protective eyewear, mask, chemical resistant gloves and a gown) will always be worn when mixing or dispensing this product into clinic containers. Using the measuring dispenser on each bottle of concentrate, add 4 fl. ounces of the concentrate to a one-gallon plastic container and then fill it with water.

  2. Most containers have 4 ounce dispensers, but some containers only have one ounce dispensers which will require you to dispense it four times to meet the four ounces per gallon requirement. Always check to see which type dispenser you have before mixing.

  3. New solutions should be made every 60 days.

**Procedure for the Use of ProPhene**

1. Gloves should be worn whenever ProPhene is used or contacted. Wear a facemask until finished using ProPhene.
2. **ProPhene** should be applied directly to toweling as a stream or spray. Avoid filling the air with a ProPhene aerosol.

   a. Wet a paper towel with **ProPhene** and scrub surfaces and to wipe them clean. Discard the paper towel.

   b. Wet a second towel with **ProPhene** to apply fresh **ProPhene** to the surface for disinfecting. Allow it to remain wet for 10 minutes.

   If desired, to dry the surface and to obtain extra protection: After 15 minutes, wipe the **ProPhene** away with plain 70% alcohol (ethyl or Isopropyl).

**Acid Etch solutions and gels:**

**Examples:** Solutions and gels for acid etch techniques associated with placement of composites, sealants, and orthodontic brackets usually contain phosphoric acid.

**Hazards:** Acid burns and possibly sloughing of tissue, eye damage.

**Do:**
- Handle acid-soaked material with forceps or gloves
- Clean spills with a commercial acid spill cleanup kit
- Avoid skin or soft tissue contact
- In case of eye or skin contact, rinse with a large amount of running water

**Asbestos:**

**Examples:** Some lining material for casting rings and crucibles; some soldering investments.

**Hazards:** Respiratory diseases, mesothelioma of the lung.

**DO:**
- Wear gloves, protective eyewear, and NIOSH-approved mask when handling any asbestos contamination

**Flammable gases:**

**Examples:** Nitrous oxide and oxygen, liquefied petroleum gas (LPG).

**Hazards:** Fire

**DO:**
- Test periodically for leaks with weak soap solutions
- Avoid contact between compressed oxygen gas and lubricants or grease
- Avoid having sparks or flames near flammable gases
Flammable liquids:
Examples: Solvents such as acetone alcohol and ether
Hazards: Fire or explosion
DO: • Store flammable liquids in tightly covered containers
      • Provide adequate ventilation
      • Have fire extinguishers available at locations where these liquids are used
      • Avoid sparks or flames in areas where flammable liquids are used

METALS
Beryllium:
Examples: Beryllium dust and fumes arise from the melting, grinding and milling of some base-metal alloys
Hazards: Contact dermatitis, corneal burns, inflammation and scarring of respiratory tissues
DO: • Post warning signs indicating a respiratory hazard
      • Wear gloves, eye protection and NIOSH-approved mask when casting, polishing or grinding these alloys
      • Provide adequate local exhaust ventilation for all operations in casting areas
      • Use power suction methods rather than air homes to remove dust from clothing and to clean machinery
      • Dispose of wastes, storage materials or contaminated clothing in sealed labeled bags

Mercury:
Examples: Bulk mercury; precapsulated alloy; scrap amalgam
Hazards: Fine tremors, nausea, loss of appetite, diarrhea, depression, fatigue, increased irritability, allergic manifestations, contact dermatitis, pneumonitis, nephritis, headache, insomnia, dark pigmentation of marginal gingiva, loosening of teeth
DO: • Work in well-ventilated spaces
      • Avoid direct skin contact with mercury
      • Store mercury in unbreakable, tightly sealed containers away from any source of heat
      • Salvage amalgam scrap; store under photographic fixer solution in a closed container
      • Clean up spilled mercury using appropriate procedures and equipment; do not use a household vacuum cleaner
      • Place contaminated disposable materials in closed polyethylene bottle

Nickel:
Examples: Nickel-containing dental alloys, gold alloys, solders. Particles released during fabrication and grinding of nickel-containing alloys
Hazards: Allergic manifestations, irritation to eyes and respiratory systems
DO: • Use protective eyewear and NIOSH-approved mask when grinding nickel-containing alloys.
• Use high-velocity evacuation systems.

Nitrous oxide:

Hazards: Based on laboratory animal studies, high exposure may cause adverse health effects

DO: • Steps should be taken to minimize the vapor concentration of nitrous oxide in the dental suite
• Use a scavenging system.
• Check nitrous oxide machines, lines, hoses and masks for leakage
• Maintain adequate ventilation

Other Metals:

Examples: Casting alloys and alloys for amalgam

Hazards: Metal dusts and fumes may irritate eyes and respiratory systems. Contact dermatitis

DO: • Wear protective eyewear and NIOSH-approved mask while grinding metal prostheses

Organic chemicals:

Examples: Alcohols, ketones, esters, solvents, and monomers such as methyl methacrylate and dimethacrylates. The halogen-containing organic liquids used in dental offices primarily include chloroform and carbon tetrachloride and some solvents and cleaners.

Hazards: Fire, allergic manifestations, contact dermatitis, irritation to mucous membranes, respiratory problems, central nervous system depression, headache, drowsiness, loss of consciousness, nausea, liver and kidney damage, possible mutagenesis.

DO: • Avoid skin contact
• Avoid excessive inhalation of vapors
• Work in well-ventilated areas
• Use forceps or gloves when handling contaminated gauze or brushes
• Keep containers tightly closed when not in use
• Store containers on flat sturdy surfaces
• Clean outside surfaces of containers after use to prevent residual material from contacting the next user
• Use a commercially available flammable solvent cleanup kit in case of spills

Photographic chemicals:

Hazards: Contact dermatitis, irritation of eyes, nose, throat and respiratory system from vapors and fine particulates of chemicals

DO: • Use protective eyewear
• Minimize exposure to dry powder during mixing of solutions
• Avoid skin contact with photographic chemicals and solutions by wearing heavy-duty rubber gloves
• Work in well-ventilated areas
• Clean up spilled chemicals immediately
• Wash off chemicals with large amounts of water and a pH-balanced soap if contact occurs
• Store photographic solutions and chemicals in tightly covered containers

Pickling solutions:
Examples: Pickling solutions are strongly acidic and contain metal ions after use. The components may be volatile
Hazards: Burning of skin, irritation of skin and mucous membranes, damage to eyes, irritation to respiratory system
DO: • Use forceps to hold the object being pickled
• Avoid skin contact by wearing heavy-duty rubber gloves
• Use pickling solutions in well-ventilated areas
• Minimize the formation of airborne droplets
• Avoid splattering of solution and putting hot objects into the solution
• Store pickling solutions in covered glass containers
• Keep soda lime or a commercial acid spill cleanup kit available in case of spills
• Rinse with a large amount of running water in case of eye or skin contact. Seek medical attention as necessary

Plaster and other gypsum products:
Examples: Gypsum products contain silica and calcium sulfate
Hazards: Irritation and impairment of respiratory system. Silicosis. Irritation of the eyes.
DO: • Wear dust mask

VII. INFORMATION GATHERED FROM A MSDS

MSDSs are prepared by chemical manufacturers and importers and include information regarding the specific chemical identity of the hazardous chemical(s) involved and its common name(s). The role of MSDSs is to provide detailed information on each hazardous chemical, including potentially hazardous effects, physical and chemical characteristics and recommendations for appropriate protective measures. MSDSs must be readily accessible to employees when they are in their work areas during their workshifts.

The following sections can be found on a MSDS:

IDENTITY
This section identifies the most common materials used in the workplace. This information should be recorded on the corresponding label for the individual product.

SECTION I
Information of the MSDS preparer, distributor or manufacturer and the date the MSDS was prepared is recorded here.

SECTION II Hazardous Ingredients
This section asks for the hazardous components of the material identified in the IDENTITY section. A brief description to identify the materials is also listed:

OSHA PEL: defines the permissible exposure level of the chemical.

ACGIH TLV: defines the American Conference of Governmental Industrial Hygienists Threshold Limit Value (TLV). TLV is a term used by the Occupational Safety and Health community to describe the airborne concentration of a material to which nearly all persons can be exposed to day in and day out, and not develop adverse health effects.

SECTION III Physical/Chemical Characteristics
Characteristics of the hazardous components identified in Section II, are listed here. The glossary of terms defines these characteristics.

SECTION IV Fire and Explosion Hazard Data
This section contains information on the flash point of the chemical, how to extinguish a fire involving the chemical and unusual hazards associated with this chemical.

SECTION V Reactivity Data
This section will give the worker information that can aid in the storage and handling of the chemical.

SECTION VI Health Hazard Data
Route of exposure to the chemical are noted along with the target organs it affects, and its carcinogenicity.

SECTION VII Precaution for Safe Handling and Use
Steps to be taken in case the material is spilled, waste disposal methods, and precautions to be taken in handling and storing the chemical are elaborated here.

SECTION VIII Control Measures
This section deals with precautions to be taken when handling this material or when it is accidentally spilled.

**VIII. HAZARD EVALUATION**

Each chemical has been evaluated for its potential to cause adverse health effects and potential to pose physical hazards such as flammability. Chemicals that are listed in one of the following sources are to be considered hazardous in all cases:

- **29 CFR 1910, Subpart Z, Toxic and Hazardous Substances** Occupational Safety and Health Administration, (OSHA)
• Threshold Limit Values (TLVs) for Chemical Substances and Physical Agents in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH).

In addition, chemicals that have been evaluated and found to be suspect or confirmed carcinogens in the following sources must be reported as such:

• National Toxicology Program (NTP), Annual Report on Carcinogens
• International Agency for Research on Cancer (IARC), Monographs
• Regulated by OSHA as a carcinogen.

From these and other references, MSDSs have been developed for hazardous chemicals.

<table>
<thead>
<tr>
<th>IX. CHEMICALS LISTED ON MSDSs</th>
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<tbody>
<tr>
<td>1) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens shall be listed if the concentrations are 0.1% or greater;</td>
</tr>
<tr>
<td>2) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise less than 1% (0.1% for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health hazard to employees;</td>
</tr>
<tr>
<td>3) The chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture.</td>
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</table>
X. EMPLOYEE TRAINING RECORD

The UNC School of Dentistry has conducted a training program for employees at risk for hazardous chemical exposure. This program covered the requirements as set forth in OSHA’s Hazard Communication Standard. The persons below successfully completed the program.

DATE:_____________ SIGNATURE:______________________________________________________

EMPLOYEE

Print Name ___________________________ Signature ___________________________

Print Name ___________________________ Signature ___________________________

Print Name ___________________________ Signature ___________________________

Print Name ___________________________ Signature ___________________________

Print Name ___________________________ Signature ___________________________

Print Name ___________________________ Signature ___________________________
In 1970, recognizing the working American as a valuable national resource, Congress passed the Occupational Safety and Health Act of 1970. The purpose of this act was "to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources." Under the Act, the Occupational Safety and Health Administration (OSHA) was created within the Department of Labor to:

- Encourage employers and employees to reduce workplace hazards and to implement new or improve existing safety and health programs;
- Provide for research in occupational safety and health to develop innovative ways of dealing with occupational safety and health problems;
- Establish "separate but dependent responsibilities and rights" for employers and employees for the achievement of better safety and health conditions;
- Maintain a reporting and recordkeeping system to monitor job-related injuries and illnesses;
- Establish training programs to increase the number and competence of occupational safety and health personnel;
- Develop mandatory job safety and health standards and enforce them effectively;
- Provide for the development, analysis, evaluation and approval of state occupational safety and health programs.

In carrying out its duties, OSHA is responsible for promulgating legally enforceable standards. OSHA standards may require conditions, or the adoption or use of one or more practices, means, methods or processes reasonably necessary and appropriate to protect workers on the job. It is the responsibility of employers to become familiar with standards applicable to their establishments and to ensure that employees have and use personal protective equipment when required for safety.

Employees must comply with all rules and regulations which are applicable to their own actions and conduct.

Where OSHA has not promulgated specific standards, employers are responsible for following the Act's general duty clause.
The general duty clause of the Act states that each employer "shall furnish...a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

States with OSHA-approved occupational safety and health programs must set standards that are at least as effective as the federal standards. Many state-plan states adopt standards identical to the federal.

EMPLOYER RESPONSIBILITIES AND RIGHTS

Employers have certain responsibilities and rights under the Occupational Safety and Health Act of 1970. The checklists that follow provide a review of many of these. Employer responsibilities and rights in states with their own occupational safety and health programs are generally the same as in federal OSHA states.

Employer Responsibilities

As an employer, you must:

- Meet your general duty responsibility to provide a workplace free from recognized hazards that are causing or are likely to cause death or serious physical harm to employees, and comply with standards, rules and regulations issued under the Act.
- Be familiar with mandatory OSHA standards and make copies available to employees for review upon request.
- Inform all employees about OSHA.
- Examine workplace conditions to make sure they conform to applicable standards.
- Minimize or reduce hazards.
- Make sure employees have and use safe tools and equipment (including appropriate personal protective equipment), and that such equipment is properly maintained.
- Use color-codes, posters, labels, or signs when needed to warn employees of potential hazards.
- Establish or update operating procedures and communicate them so that employees follow safety and health requirements.
- Provide medical examinations when required by OSHA standards.
- Provide training required by OSHA standards (e.g., hazard communication, etc).
- Report to the nearest OSHA office within 48 hours any fatal accident or one that results in the hospitalization of five or more employees.
Keep OSHA-required records of work-related injuries and illnesses, and post a copy of the totals from the last page of OSHA No. 200 during the entire month of February each year. (This applies to employers with 11 or more employees).

Post, at a prominent location within the workplace, the OSHA poster (OSHA 2203) informing employees of their rights and responsibilities. (In states operating OSHA-approved job safety and health programs, the state's equivalent post and/or OSHA 2203 may be required.)

Provide employees, former employees and their representatives access to the Log and Summary of Occupational Injuries and Illnesses (OSHA No. 200) at a reasonable time and in a reasonable manner.

Provide access to employee medical records and exposure records to employees or their authorized representatives.

Cooperate with the OSHA compliance officer by furnishing names of authorized employee representatives who may be asked to accompany the compliance officer during an inspection. (If none, the compliance officer will consult with a reasonable number of employees concerning safety and health in the workplace.)

Not discriminate against employees who properly exercise their rights under the Act.

Post OSHA citations at or near the worksite involved. Each citation, or copy thereof, must remain posted until the violation has been abated, or for three working days, whichever is longer.

Abate cited violations within the prescribed period.

**Employer Rights**

As an employer, you have the right to:

- Seek advice and off-site consultation as needed by writing, calling or visiting the nearest OSHA office. (OSHA will not inspect merely because an employer requests assistance.)
- Be active in your industry association's involvement in job safety and health.
- Request and receive proper identification of the OSHA compliance officer prior to inspection.
- Have an opening and closing conference with the compliance officer.
- Accompany the compliance officer on the inspection.
- File a Notice of Contest with the OSHA area director within 15 working days of receipt of a notice of citation and proposed penalty.
EMPLOYEE RESPONSIBILITIES AND RIGHTS

Although OSHA does not cite employees for violations of their responsibilities, each employee "shall comply with all occupational safety and health standards and all rules, regulations, and orders Issued under the Act" that are applicable. Employee responsibilities and rights in states with their own occupational safety and health programs are generally the same as for workers in federal OSHA states.

Employee Responsibilities

As an employee, you should:

• Read the OSHA poster at the job site.
• Comply with all applicable OSHA standards.
• Follow all employer safety and health rules and regulations, and wear or use prescribed protective equipment while engaged in work.
• Report hazardous conditions to the supervisor.
• Report any job-related injury or illness to the employer, and seek treatment promptly.
• Cooperate with the OSHA compliance officer conducting an inspection if he or she inquires about safety and health conditions in your workplace.
• Exercise your rights under the Act in a responsible manner.

Employee Protection for Using Rights

Employees have a right to seek safety and health on the job without fear of punishment. That right is spelled out in Section 11(c) of the Act.

• Complaining to an employer, union, OSHA or any other government agency about job safety and health hazards;
• Filing safety or health grievances;
• Participating on a workplace safety and health committee or in a union activities concerning job safety and health.
• Participating in OSHA inspections, conferences hearings, or other OSHA-related activities.
**Employee Rights**

As an employee, you have the right to:

- Review copies of appropriate OSHA standards, rules, regulations and requirements that the employer should have available at the workplace.

- Request information from your employer on safety and health hazards in the area, on precautions that may be taken, and on procedures to be followed if an employee is involved in an accident or is exposed to toxic substances.

- Receive adequate training and information on workplace safety and health hazards.

- Request the OSHA area director to investigate if you believe hazardous conditions or violations of standards exist in your workplace.

- Have your name withheld from your employer, upon request to OSHA, if you file a written and signed complaint.

- Be advised of OSHA actions regarding your complaint and have an informal review, if requested, of any decision not to inspect or to issue a citation.

- Have your authorized employee representative accompany the OSHA compliance officer during the inspection tour.

- Respond to questions from the OSHA compliance officer, particularly if there is no authorized employee representative accompanying the compliance officer.

- Observe any monitoring or measuring of hazardous materials and have the right to see these records, and your medical records, as specified under the Act.

- Have your authorized representative, or yourself, review the Log and Summary of Occupational Injuries (OSHA No. 200) at a reasonable time and in a reasonable manner.

- Request a closing discussion with the compliance officer following an inspection.

- Submit a written request to NIOSH for information on whether any substance in your workplace has potentially toxic effects in the concentration being used and have your name withheld from your employer if you so request.

- Object to the abatement period set in the citation issued to your employer by writing to the OSHA area director within 15 working days of the issuance of the citation.

- Participate in hearings conducted by the Occupational Safety and Health Review Commission.

- Be notified by your employer if he or she applies for a variance from an OSHA standard, and testify at a variance hearing and appeal the final decision.
XII. RELATED PUBLICATIONS

RELATED PUBLICATIONS

OSHA - 2056 All About OSHA
OSHA - 2098 OSHA Inspections
OSHA - 3021 OSHA: Employee Workplace Rights
OSHA - 3047 Consultation Services for the Employer
OSHA - 3088 How to Prepare for Workplace Emergencies
OSHA - 3071 Job Hazard Analysis
OSHA - 3077 Personal Protective Equipment
OSHA - 3079 Respiratory Protection
OSHA - 3085 OSHA Computerized Information System (Contains chemical information file of sampling and analytical methods analyses for more than 750 workplace chemicals).


A single free copy of the above materials can be obtained from OSHA field offices or OSHA Publications Office, Room N3101, Washington, D.C. 20210, (202) 523-9667.

OSHA AREA OFFICES

COMMISSIONER
North Carolina Department of Labor
4 West Edenton Street
Raleigh, North Carolina 27603
(919) 733-7166
(919) 856-4770

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