



ENVIRONMENTAL HEALTH AND SAFETY | HAZARDOUS MATERIALS

Chemical Hygiene Plan

Principal Investigator:

Department:

Building and Room Number(s) Covered by This Plan:

Laboratory Chemical Hygiene Officer:

Plan Revised by:

Revision Date:

Institutional Chemical Hygiene Officer:

Carrie Parinandi, Senior Compliance Assurance Specialist

Environmental Health and Safety Plan Review Date: July 2023

*This plan is prepared in accordance with the requirements set forth under 29CFR 1910.1450, Occupational exposures to hazardous chemicals in laboratories, which is a requirement that **must** be followed when developing and implementing health and safety operating procedures and practices for both personnel and facilities under the NIH Grants Policy Statement section 4.1.12. This plan is reviewed annually in accordance with 29CFR 1910.1450(e)(4).*

Revisions to the Chemical Hygiene Plan

Made August 2018

Sections 1.4 item 7 and 2.1: On-the-Job training to On-The-Job General Safety Training

Section 8.3: "...under the CHP..." to "...OSHA Laboratory Standard..."

Made August 2019

Section 1.4 item 5: CisPro® changed to EHS Assistant®

Section 6.2.6: "...DEA..." to "...Drug Enforcement Administration (DEA)..."

Made October 2020

Cover page: "EHS review..." to "Environmental Health and Safety review..."

Section 1.1: "...equipment, personal protective equipment (PPE), and..." to "...equipment, Personal Protective Equipment (PPE), and..."

Section 1.4 under Responsibilities 1: "...enforce standard operating procedures (SOP)." to "...enforce Standard Operating Procedures (SOP)."

Section 2.2: "...of the safety data sheets (SDSs) are..." to "...of the Safety Data Sheets (SDSs) are..."

Section 2.2: Link to National Library of Medicine, National Institutes of Health was removed

Section 5.1: "...using the CU Denver | Anschutz Laboratory..." to "...using the CU Denver | Anschutz Medical Campus Laboratory..."

Made March 2022

Cover page: Institutional Chemical Hygiene Officer: "Jerman Lopez..." to "Carrie Parinandi..."

Table of Contents

<i>Revisions to the Chemical Hygiene Plan</i>	2
1.0 PURPOSE, SCOPE and RESPONSIBILITIES.....	1
1.1 Purpose.....	1
1.2 Scope	1
1.3 Exclusions.....	1
1.4 Responsibilities	1
2.0 TRAINING REQUIREMENTS.....	3
2.1 Training	3
2.2 Reference Materials	3
3.0 CHEMICAL EXPOSURE ASSESSMENT.....	3
3.1 Personal Exposure Monitoring	3
4.0 CONTROLS TO REDUCE EXPOSURES TO HAZARDOUS CHEMICALS.....	4
4.1 Engineering Controls.....	4
4.1.1 Ventilation.....	4
4.1.2 Chemical Fume Hoods and Glove Boxes.....	4
4.1.3 Additional Provisions for Work Involving PHS	4
4.2 Administrative Controls.....	5
4.3 Personal Protective Equipment	5
5.0 GENERAL LABORATORY PROCEDURES	5
5.1 Laboratory Space and Personnel Registration	5
5.2 Common Hygiene and Personal Practices in the Laboratory.....	5
5.3 Housekeeping	5
5.4 Laboratory Behavior	6
5.5 Avoidance of Routine Exposures.....	6
6.0 CHEMICAL PROCUREMENT, DISTRIBUTION, USE, AND STORAGE GUIDELINES.....	6
6.1 Procurement.....	6
6.2 Storage.....	7
6.2.1 Flammable Liquids	7
6.2.2 Oxidizers and Organic Peroxides	8
6.2.3 Toxic Materials.....	8
6.2.4 Corrosive Materials	8

6.2.5 Compressed Gases and Cylinders.....	8
6.2.6 Controlled Substances	8
6.2.7 Unknown Chemicals	8
6.2.8 Synthesis of Chemicals for Non-Laboratory Users	9
7.0 EMERGENCY RESPONSE	9
7.1 Incidental Spills	9
8.0 MEDICAL EXAMINATION, CONSULTATION AND SURVEILLANCE	9
8.1 Health Care Providers.....	9
8.2 Information for the Physician	10
8.3 Physician's Written Opinion	10
9.0 Recordkeeping.....	10
APPENDIX A: Laboratory Specific Standard Operating Procedures.....	11

1.0 PURPOSE, SCOPE and RESPONSIBILITIES

1.1 Purpose

The purpose of the Chemical Hygiene Plan (CHP) developed by the University of Colorado Denver | Anschutz Medical Campus is to establish a written program that supports the procedures, equipment, Personal Protective Equipment (PPE), and work practices for the protection of laboratory personnel. Additional goals of the plan include minimizing chemical exposures and avoiding underestimation of risk.

1.2 Scope

The CHP applies to personnel at the Anschutz Medical Campus and Denver Campus that handle or are exposed to chemicals in a laboratory.

1.3 Exclusions

The plan **does not** cover work with radioactive or biological materials.

1.4 Responsibilities

The Principal Investigator (PI)/Laboratory Supervisor is the designated Chemical Hygiene Officer (CHO) for the laboratory. The PI/Laboratory Supervisor has the responsibility for the health and safety of staff performing work in the laboratory. The PI/Laboratory Supervisor may delegate safety duties but must ensure that any delegated duties are properly carried out. All legal implications for chemical use fall to the PI/Laboratory Supervisor, even when alternate safety representatives have been identified.

Responsibilities of the PI/Laboratory Supervisor include:

1. Identify hazardous conditions in the laboratory, determine safe procedures and controls, and implement and enforce Standard Operating Procedures (SOP).
2. Create SOPs for chemicals used in the laboratory and perform literature reviews relevant to the safety and health that is appropriate for the work performed.
3. Provide approval before working with Particularly Hazardous Substances (PHS)¹ in the laboratory.
4. Consult with laboratory personnel on the use of PHSs or other higher-risk procedures in order to take the necessary safety precautions.
5. Maintain a current chemical inventory for the laboratory using the EHS Assistant® [online chemical inventory portal](#) for the appropriate campus.
6. Provide all members of the laboratory access to the CHP.
7. Train laboratory personnel on proper handling and work practices involving hazardous materials. Document training on the “On-The-Job General Safety Training” (OJT) form found in the Forms section of the EHS web site.
8. Ensure workplace engineering controls and safety equipment are correctly maintained and calibrated.
9. Ensure PPE is used correctly, appropriately maintained, and in good working order.
10. Conduct periodic laboratory inspections to identify any workplace hazards, malfunctioning equipment, or new procedures that need to be evaluated.
11. Promptly reporting laboratory-related accidents and injuries to [Risk Management](#).

¹ Chemicals that are select carcinogens, reproductive toxins, or have a high degree of acute toxicity.

12. Make any required medical surveillance, consultation, and examination of records available to laboratory personnel.
13. Make non-laboratory personnel aware of laboratory-specific hazards when working in the area.

Responsibilities of Laboratory Personnel include:

1. Understand and follow the CHP.
2. Follow all oral and written laboratory safety rules, regulations, and SOPs.
3. Maintain a clean and safe work area.
4. Minimize physical and chemical hazards.
5. Review and understand the hazards associated with the chemicals and processes in the laboratory **before** doing any work.
6. Ensure consistent and proper use of administrative, PPE, and engineering controls.
7. Obtain approval from the PI/Laboratory Supervisor before using PHSs.
8. Report accidents or unsafe laboratory conditions to the PI/Laboratory Supervisor in a timely manner.
9. Successful completion of assigned training.
10. Enroll in the university's medical surveillance or respiratory protection programs as appropriate.
11. Notify PI/Laboratory Supervisor of any work modifications ordered by a physician as a result of medical surveillance, occupational injury, or exposure.

Responsibilities of EHS and the CHO

EHS is responsible for the administration and oversight of the institutional implementation of the plan. EHS provides technical guidance to personnel at all levels of responsibility on matters pertaining to laboratory use of chemicals. With assistance from appropriate subject matters experts within EHS, the CHO:

1. Assists the PI/Laboratory Supervisor in the selection of the appropriate safety control requirements including laboratory practices, PPE, engineering controls, and training.
2. Performs hazards assessments.
3. Maintains area and personal exposure-monitoring records.
4. Reviews and provides advice on laboratory SOPs.
5. Helps determine medical surveillance requirements for laboratory personnel.
6. Reviews plans for installation of engineering controls and new laboratory construction/renovation.
7. Reviews the CHP at least annually to evaluate the effectiveness of the plan.

2.0 TRAINING REQUIREMENTS

2.1 Training

All laboratory members must complete the necessary university training courses before engaging in any research activity.

At a minimum, every laboratory member working with chemicals or chemical waste must complete:

- Chemical Waste Management (online)
- Laboratory Safety Training (online)
- On-the-Job General Safety training form
- Review the CHP

The nature of the work performed by the laboratory member will dictate any additional training needed.

2.2 Reference Materials

Paper copies of the Safety Data Sheets (SDSs) are not required so long as they are readily available online. Laboratory workers must know how to easily access SDSs either in the laboratory or online and have knowledge of additional reference material.

Several online resources are available that can provide information on the hazards, signs and symptoms of exposure, as well as safe handling, storage, and disposal of chemical wastes:

- [Agency for Toxic Substances and Disease Registry](#)
- [PubChem, National Institutes of Health](#)
- [Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards](#)

3.0 CHEMICAL EXPOSURE ASSESSMENT

For any exposure concerns involving the handling, storage, and disposal of chemicals, the Research Safety and Industrial Hygiene (RSIH) group can provide a hazard assessment, chemical exposure assessment, or monitoring services to help ensure that the appropriate controls are in place.

3.1 Personal Exposure Monitoring

Anytime there is reason to believe that exposure levels for a chemical substance exceed the action level² or the permissible exposure limit (PEL)³, the RSIH group can conduct personal monitoring to verify the potential for exposure and what actions should be taken to reduce the hazard.

Monitoring results are provided to laboratory personnel in accordance with the relevant regulation calling out the monitoring activities or within 15 days of EHS receiving the monitoring results. EHS also maintains copies of the exposure monitoring.

² A concentration designated for a specific substance, calculated as an eight-hour time weighted average, which initiates certain required activities such as exposure monitoring and medical surveillance.

³ The PEL is an 8-hour time weighted average concentration to which an employee can be exposed to without incurring the risk of adverse health effects.

4.0 CONTROLS TO REDUCE EXPOSURES TO HAZARDOUS CHEMICALS

Exposure control measures, such as engineering controls, administrative controls, work practices and PPE, are strategies that can be used to control hazards. Simple changes like using alternate less hazardous chemicals, or reducing the scale of an experiment are the most effective measures to protect employees.

4.1 Engineering Controls

4.1.1 Ventilation

General laboratory ventilation has negative airflow relative to the outside of the laboratory. The airflow into the laboratory area is from non-laboratory areas that are exhausted to the exterior of the building.

R1-North and R1-South are equipped with emergency purge buttons at the exit doors to the laboratory. In case of a chemical release in the area, laboratory personnel should press the purge buttons to temporarily increase the air exchanges in the laboratory and help dissipate any chemical vapor accumulation that might occur while first responders arrive.

4.1.2 Chemical Fume Hoods and Glove Boxes

Any reaction that generates noxious odors, hazardous fumes, vapors, gases, or particles must be performed using local exhaust ventilation. Chemical fume hoods are the preferred engineering control for local exhaust; under certain circumstances the use of a glove box may be more appropriate. When using fume hoods, all adjustments to the sashes should be made to keep the sashes as low as possible. Chemical fume hoods are not to be used for work involving perchloric acid or heating of acids of any kind.

To ensure that chemical fume hoods provide adequate performance, EHS performs annual quantitative testing. The results of this fume hood test are written on the annual certification sticker placed at the ideal operating sash height of the fume hood. Each chemical fume hood is also equipped with an electronic air flow meter that will show the real time value of air being pulled by the chemical fume hood. This meter is programmed so that if the air flow falls below a certain level, an audible alarm will sound. If this happens, follow these steps if they can be done safely:

- Stop the chemical procedure being performed
- Close the fume hood sash
- Inform the PI/Laboratory Supervisor of the issue
- Contact EHS

4.1.3 Additional Provisions for Work Involving PHS

Additional precautions must be taken when working with a PHS:

- Establish a designated area; which is a device or part of the laboratory intended for work with select carcinogens, reproductive toxins, or substances which have a high degree of acute toxicity.
- Any work involving a PHS must be conducted in a fume hood, glove box, or with the assistance of other local exhaust ventilation to address the additional toxicity hazard presented to the laboratory personnel.

- Decontamination procedures for work involving a PHS must be addressed by the specific chemical SOP.

4.2 Administrative Controls

Administrative controls serve to minimize or prevent laboratory personnel exposure to hazardous chemicals. Administrative controls include training, signs, and warning labels.

4.3 Personal Protective Equipment

When administrative and engineering controls are not enough to provide laboratory workers with safe working conditions, the PI/Laboratory Supervisor is responsible for selecting, making available, and determining the correct type of PPE to use. Per the Occupational Safety and Health Administration (OSHA) PPE standard, a hazard assessment must be completed whenever PPE is to be used for any activity in the lab. Contact the RSIH group to get assistance with the hazards assessment and in selecting the correct type of PPE. Examples of PPE include:

- Laboratory coats
- Foot protection
- Hand protection
- Hearing protection
- Respiratory Protection

5.0 GENERAL LABORATORY PROCEDURES

5.1 Laboratory Space and Personnel Registration

All laboratories must register with EHS using the CU Denver | Anschutz Medical Campus Laboratory Registration form found on EHS's Form's web page.

5.2 Common Hygiene and Personal Practices in the Laboratory

- Eating, drinking, smoking, chewing gum, or applying cosmetics is not permitted in the laboratory.
- Food or beverages may not be stored in laboratory refrigerators, cold rooms, or freezers that are used to also store chemicals.
- Hand washing is strongly encouraged after removing gloves and before using the restroom and/or eating. Wash areas of exposed skin frequently if there is a potential for direct contact with skin.
- Glassware or utensils used for laboratory operations shall not be used for storage, handling, or consumption of food or beverages.
- Long hair and loose clothing shall be confined in such a way as to not pose a hazard to the laboratory member while working in the laboratory area.
- Open toed shoes are not permitted in the laboratory under any circumstances.
- Ice generated for laboratory use shall be labeled as "Not to be used for consumption for food storage".
- Any spills or accumulations of chemicals on work surfaces must be cleaned immediately.

5.3 Housekeeping

- Laboratory areas, safety showers, aisles, doorways, walkways, and corridors must be kept clean, uncluttered, and not to be blocked or used as storage space.

- Do not dispose of broken glass in the regular trash. Place the broken glass in a sturdy container, seal the top, and label it “BROKEN GLASS” for housekeeping to pick up and dispose.
- Spills of water/ice must be cleaned up immediately.
- Floors are to be kept dry all times.
- Under no circumstances should access to exits, emergency equipment, and utility controls be blocked.

5.4 Laboratory Behavior

- Employees must act in a professional manner at all times.
- When using hazardous materials or performing hazardous procedures, working alone is strongly discouraged.
- Visitors must observe all safety regulations, must be escorted by a member of the laboratory, and are the responsibility of the laboratory escort.
- Only well understood reactions should be permitted to run unattended. If a reaction is permitted to be left unattended, lights should be left on and a sign with the following information should be placed on the door: the experimenter’s name and phone number, supervisor’s name and phone number, chemical reagents, products and quantities.
- Employees shall be made aware of the location and proper operation of all laboratory safety equipment during their OJT training and whenever procedures change.
- No minors are permitted in the laboratory unless the university minor policy has been reviewed and necessary permissions obtained.

5.5 Avoidance of Routine Exposures

- Avoid direct skin contact with chemicals.
- Mouth pipetting is strictly prohibited. Pipette liquids with a vacuum or pipette bulb.
- Any apparatus that may emit toxic/nuisance vapors must be vented outdoors using local exhaust devices.

6.0 CHEMICAL PROCUREMENT, DISTRIBUTION, USE, AND STORAGE GUIDELINES

6.1 Procurement

PI/Laboratory Supervisor approval must be obtained before purchasing any chemicals. Consider the following *before* purchasing any chemicals:

- Check the chemical inventory to see if the desired chemical is already in stock;
- Know what proper storage, handling, and disposal procedures are;
- Order only the amount necessary for the project at hand and/or check with others that may be willing to lend chemical (the online inventory through EHS can be searched for chemicals in other laboratories);
- Laboratory personnel have received the appropriate training/PPE as required for the safe handling of the chemical;
- Know if the chemical is listed as a chemical of interest in the US Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS);
- SDS received with the chemical must be maintained on file or must be easily accessed using the internet;

- No container shall be accepted without an adequate label that includes: the chemical's name in English, corresponding hazard warnings, and specific target organ effects;
- Care must be taken to ensure the original labels on the containers are not removed or defaced while the container still holds any amount of the original chemical;
- Newly developed chemicals, must be labeled with a chemical name and date;
- Any potentially explosive compounds shall be inspected regularly for water content and age and be disposed of according to the manufacturer's recommendations *before* they become unstable.
- **NOTE:** Certain peroxide forming chemicals such as ethers, have disposal dates ranging from as little as six months up to 18 months. Check the manufacturer's recommendations to ensure these chemicals are not kept in the lab past their expiration date. Any peroxide forming chemicals that are kept past their expiration date create an explosion hazard, may present danger to lab personnel, and require special disposal methods. To keep track of expiration dates for peroxide formers, it is required that all peroxide forming chemicals have the date received as well as the date opened written on the label of the container. Arrangements need to be made with EHS to pick up and dispose of any peroxide forming chemicals before their expiration date.

6.2 Storage

- All chemicals should be entered into the online chemical inventory. Inventories must be updated as needed and at least annually and be made available to all laboratory personnel and members of EHS.
- Minimize storage and working amounts of hazardous chemicals to prevent having excess amounts of chemicals in the laboratory that are not being used.
- All chemical containers must have legible, firmly attached labels. Labels should also include the date the chemical was received and the date the chemical was first opened.
- Avoid storing chemicals overhead or in a manner that will block fire sprinkler heads.
- The laboratory's CHO or other designated member must conduct annual inventories and any unneeded chemicals should be disposed of if there is no legitimate use for them.
- Chemicals must be segregated according the following chart:

At a minimum, store...	Away from...
Flammables and combustibles	Oxidizers
Toxics	Corrosives and water-reactives

- Before a chemical's expiration date has been reached, the chemical must be disposed of as chemical waste.

6.2.1 Flammable Liquids

Flammable liquids must be stored in National Fire Protection Association (NFPA) approved flammable storage cabinets. In the Research Towers, the School of Pharmacy and Pharmaceutical Sciences, and the Barbara Davis Center, each laboratory is allowed to have up to 2 gallons of flammable liquids per alcove/module outside of an approved flammable liquids storage cabinet; the 2-gallon limit includes flammable waste. Consult the Fire and Life Safety Officer for guidance on storage quantities as these are dictated by International Fire Code and/or International Building Code.

NOTE: Certain peroxide forming chemicals such as ethers, have disposal dates ranging from as little as six months up to 18 months. Check the manufacturer's recommendations to ensure these chemicals are not kept in the laboratory past their expiration date. Any peroxide forming chemicals that are kept past their expiration date create an explosion hazard, may present danger to laboratory personnel, and require special disposal methods. To keep track of expiration dates for peroxide formers, it is required that all peroxide forming chemicals have the date received as well as the date opened written on the label attached to the container. Arrangements need to be made with EHS to pick up and dispose of any peroxide forming chemicals before their expiration date.

6.2.2 Oxidizers and Organic Peroxides

All forms of oxidizers including organic peroxides must be physically segregated from flammables and combustibles. Segregation can be as simple as placing the oxidizer or organic peroxide in a beaker and leaving it in the same place. *NOTE:* Failure to physically segregate oxidizers from flammable and combustible materials is one of the top violations found by the Colorado Department of Public Health and Environment (CDPHE) during laboratory inspections.

6.2.3 Toxic Materials

Toxic materials are classified based on the lethal dose 50 (LD₅₀) values, their lethal concentration 50 (LC₅₀) values, and even by more structured definitions such as acute toxicity, carcinogens, mutagens, teratogens, and reproductive toxics. Certain toxic materials react with corrosive materials and even water to release toxic gases. Reading the SDS or doing additional research can identify which toxic materials should be kept separate from acids and water.

6.2.4 Corrosive Materials

Acids and bases must be stored in appropriate acid or base resistant trays. Physical segregation is necessary to avoid the neutralization reactions that happen when acids and bases are stored together. Oxidizing acids such as perchloric, nitric, and sulfuric acid should be kept away from organic materials such as paper and wood to minimize the potential fire hazard that can result if these materials come in direct contact with one another.

6.2.5 Compressed Gases and Cylinders

Store compressed gases securely in areas with adequate ventilation. Upon release into the environment, compressed gasses have significant expansion ratios and pose significant health hazards if the expansion occurs in a poorly ventilated area.

6.2.6 Controlled Substances

All controlled substances must be stored at the address indicated in the Drug Enforcement Administration (DEA) registration and be stored in a securely locked, substantially constructed cabinet. Access to the controlled substances shall be limited only to the holder of the controlled substances registration and their designated agents.

6.2.7 Unknown Chemicals

In the event a byproduct is generated in the course of a chemical reaction, the laboratory is to treat the chemical as a hazardous material and consult with EHS to establish its chemical characteristics so that it can be addressed under this CHP.

6.2.8 Synthesis of Chemicals for Non-Laboratory Users

For any chemical that a laboratory synthesizes for users outside of the actual research laboratory who synthesized the chemical all aspects of the Hazard Communication (HAZCOM) standard must be complied with including developing an SDS and the corresponding labels.

7.0 EMERGENCY RESPONSE

Every person who handles hazardous materials or chemical waste must know the proper emergency response procedures for fires, emergency medical situations, spills, or uncontrolled releases of hazardous materials. Many hazardous substance spills cannot be safely cleaned up by laboratory personnel because they lack the appropriate PPE and specialized training.

7.1 Incidental Spills

Incidental spills are those spills that are usually less than 500 ml and involve chemicals that present a relatively low hazard. The nature of the chemical will change what spilled quantity will qualify as an incidental spill. Check the SOP for the exact amount. In such instances, if personnel have the training, knowledge, proper clean up equipment, and an SDS or other source of information to help select the proper PPE, they can clean up the spill and dispose of the spill cleanup material as hazardous chemical waste.

For all other releases that are greater than 500 ml, any compressed gas leaking, any amount of chemical spilled on a person, where there is a possibility of an environmental release, or the spilled substance has an NFPA rating of 3 or 4 for toxicity or flammability, or laboratory personnel do not feel comfortable cleaning, contact university police immediately and request assistance, evacuate the area and prevent reentry, and wait for responders.

8.0 MEDICAL EXAMINATION, CONSULTATION AND SURVEILLANCE

All personnel who are engaged in work with hazardous chemicals shall be provided the opportunity to receive medical attention/consultation whenever the following situations arise:

- Signs and symptoms of exposure to a hazardous material develop.
- Exposure monitoring reveals an exposure at an exposure level routinely above the action level and/or PEL for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, or where medical surveillance must be established for the affected worker (s) as prescribed by a particular standard.
- A spill, leak, explosion, or other situation occurs which results in a hazardous materials exposure.

All medical examinations and consultations must be performed by or under the direct supervision of a licensed physician and be provided without cost to the worker, without loss of pay, and at a reasonable time and place. Contact the EHS Occupational Health Program if you have any questions about medical consultations or examinations.

8.1 Health Care Providers

A worker's compensation claim must be filed for all worked-related injuries. The form can be filed by the employee or by his/her supervisor. The form can be accessed at: www.cu.edu/risk

A list of designated medical providers for work related injuries can be found on the Risk Management's website at: www.cu.edu/risk/designated-medical-providers

8.2 Information for the Physician

The laboratory personnel or PI/Laboratory Supervisor must provide the name of the hazardous chemical to which the staff members were exposed to as well as a description of any signs and symptoms if any that the exposed individuals are presenting to the physician.

8.3 Physician's Written Opinion

For all consultations or examinations required under the OSHA Laboratory Standard, the employer shall obtain a written opinion from the examining physician which shall include the following information:

- Any recommendations for further medical follow-up;
- The results of the medical examination and any associated tests;
- Medical conditions revealed in the course of the examination which may place the employee at increased risk as a result of exposure to hazards in the workplace; and
- A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.
- The written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure.

9.0 Recordkeeping

The employer shall establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required.

The employer shall assure that such records are kept, transferred, and made available in accordance with 29 CFR 1910.20.

APPENDIX A: Laboratory Specific Standard Operating Procedures