LABORATORY INSPECTION PROGRAM

Prepared and Maintained by UNM Department of Environmental Health & Safety

Reviewed and Approved by UNM Chemical & Laboratory Safety Committee

Revision 1, Approved by CLSC in February 2025

This page intentionally left blank

ENVIRONMENTAL HEALTH & SAFETY

DOCUMENT REVISION LOG

Document: **Laboratory Inspection Program**

Rev. No.	Effective Date	Revision Description	Pages Replaced	Completed by:
0	09/23/2021	Initial publication	NA	M. Terry
1	08/19/2024	Introduction - Added safety culture language and updated language on the purpose of inspections Section 2 – Added Safety Liaison responsibilities Section 6 – Added Safety Liaison as one of the lab contacts throughout this section Section 7 – Updated description of CLSC members Attachment 1 – Updated Lab Inspection Checklist	NA	SC, MT

ENVIRONMENTAL HEALTH & SAFETY

ACRONYMS & DEFINITIONS

EHS	Environmental Health & Safety Department
HSC	Health Science Center
PI	Principal Investigator
SOP	Standard Operating Procedure
UNM	University of New Mexico

ENVIRONMENTAL HEALTH & SAFETY

TABLE OF CONTENTS

ENVIRONMENTAL HEALTH & SAFETY

Laboratory Inspection Program

Safety is a core value of the University of New Mexico (UNM). UNM leadership and the Environmental Health & Safety Department (EHS) are committed to establishing and fostering a culture of safety within the UNM community. Part of demonstrating this commitment includes conducting annual inspections of all research and teaching laboratories for the purpose of increasing awareness of the unique hazards in laboratories, providing guidance on how to mitigate these hazards, and ensuring compliance with the UNM Chemical Hygiene Plan.

1. Scope

This program applies to all research and teaching laboratories at UNM.

2. Responsibilities

2.1. Environmental Health & Safety (EHS) is responsible for:

- Preparing, reviewing and periodically revising this program
- Monitoring compliance with this program
- Scheduling and conducting annual lab inspections
- Providing guidance on safety and compliance issues discovered during inspections
- Issuing inspection reports
- Conducting follow-up inspections, if needed

2.2. Deans, Directors and Department Heads are responsible for:

- Ensuring departmental compliance with all the procedures outlined in this program
- Ensuring departmental compliance with the UNM Chemical Hygiene Plan

2.3. Supervisors and/or PIs are responsible for:

- Ensuring compliance with this program in their work area(s)
- Ensuring compliance with the UNM Chemical Hygiene Plan
- Coordinating with EHS staff to provide access to their laboratory
- Meeting with EHS staff to discuss the materials and procedures carried out in their laboratory
- Correcting any deficiencies noted during inspection of their laboratory
- Designating a safety liaison for their lab group

2.4. Employees are responsible for:

- Being aware of and familiar with the provisions of the Laboratory Inspection Program
- Being aware of and familiar with the provisions of the Chemical Hygiene Plan
- Answering any questions posed by EHS during annual lab inspections

ENVIRONMENTAL HEALTH & SAFETY

2.5. Safety Liaisons (Faculty or Staff Scientists/Engineers) are responsible for:

- Maintaining the lab's safety and training documentation
- Participating in the annual laboratory inspection
- Communicating with EHS on lab safety issues and question

3. Laboratory Inspection Tracking

In order to maximize the effectiveness of the lab inspection process, UNM's EHS Department uses a web-based platform for tracking lab inspections. The web-based platform supports laboratory safety compliance and allows EHS to schedule inspections and send electronic reports to Principal Investigators (PIs) promptly following an inspection. The platform also helps EHS and PIs to keep track of inspections, inspection findings, and the progress of corrective actions.

4. Laboratory Inspection Schedule

There are over 550 labs at UNM, including HSC and satellite campuses. The table below shows the approximate time frame used for conducting lab inspections since 2016. This schedule is flexible and can be rearranged to accommodate inspector and/or laboratory availability.

Location	South Campus	North Campus	Satellites	Central/Main Campus
# of Labs	79	204	36	287
Inspection Timeframe	January – March	March – June	July – November	July - November

5. Inspectors

Annual lab inspections are conducted by the following EHS staff, who have been trained on the laboratory inspection techniques and procedures:

- Environmental Health & Safety Technicians
- Safety Specialists
- Chemical Hygiene Officer

6. Laboratory Inspection Process

In general, laboratory inspections are an ongoing process that continues throughout the year. The following subsections outline this process.

6.1. Schedule the Inspection

Approximately two weeks prior to the inspection timeframe, the EHS inspector will reach out to the PI and/or Safety Liaison via email or via the web-based inspection platform to schedule the annual lab inspection. The web-based platform sends an automated message via email to the PI of the laboratory, requesting access to the

lab. The scheduling request (whether via email or web-based platform) includes instructions to respond within two weeks.

Failure to respond to a lab inspection scheduling request will result in a Non-Scheduling Violation Report being issued to the PI, Safety Liaison, and Department Chair.

6.2. Conduct Inspection

On the day of the inspection, EHS staff will gather the following supplies and information for the inspection:

- Laboratory Inspection Checklist
- RMM chemical inventory
- Safety glasses
- Smartphone for taking photos

Inspectors will wear a shirt with a UNM or EHS logo, long pants, and closed-toe shoes when conducting lab inspections. The main focus of the inspection is to increase awareness of laboratory hazards and provide guidance on mitigating those hazards. The inspection is also intended to assess compliance with the UNM Chemical Hygiene Plan. The inspector will focus on opportunities to educate lab personnel on any deficiencies found.

6.3. Interview the PI

If the PI or Safety Liaison is unavailable, another member of the laboratory staff, preferably the highest-ranking member, should be made available to EHS. The EHS inspector will obtain the following information during the interview:

- Purpose of lab activities (type of research, goal of research)
- Hazardous chemicals and/or processes used in the lab
- Names of people who work in the lab (staff and students)
- Name of the lab's Safety Liaison
    - If no Safety Liaison has been designated, EHS will make a recommendation in the inspection report that someone from the lab, preferably be the PI, a faculty member, or a staff scientist or engineer, be the designated Safety Liaison
- Type of waste (if any) generated by lab activities

The inspector will make the lab representative aware of the various safety programs and SOP templates available on the EHS website, as well as the trainings offered by EHS. The inspector will encourage lab personnel to visit the EHS website and offer EHS support and guidance.

6.4. Complete & Submit Inspection Report

The inspector will use the web-based inspection tracking platform to complete the inspection report and to submit the inspection report to the PI, the Safety Liaison, and the Department Chair within one week of conducting the inspection.

The inspection report, along with any supporting documentation, is automatically saved in the lab's inspection history. A copy of the inspection report and any associated photos should also be saved in the appropriate folder on the EHS shared drive (\\SRS-Shared\Research Safety\Lab Safety\Lab Inspection Reports).

6.5. Follow-Up Inspections

For deficiencies that pose a serious safety or compliance issue, a follow-up inspection may be necessary. Deficiencies that warrant a follow-up inspection include, but are not limited to:

- No emergency contacts and/or hazard warnings posted in lab
- No PPE available
- No spill kit available
- Floors are not free from spills, trip hazards, or broken surfaces
- Improperly stored compressed gases
- Flammables and oxidizers are not segregated
- Improper use of extension cords and surge protectors
- Respirator use without medical clearance and fit-testing

The inspector will schedule the follow-up inspection and submit the follow-up inspection report via the web-based inspection tracking platform, so the deficiency status can be tracked and saved in the lab's inspection history. If lab personnel can prove that the issue was resolved by sending photos via email to the inspector, an in-person follow-up inspection is not necessary.

6.6. Exemptions from Annual In-Person Inspections

Approximately six months after an annual in-person inspection, EHS will send a link to the PI and Safety Liaison, with instructions to complete the Annual Lab Self-Audit.

Labs that did not have significant violations (deficiencies that required a follow-up inspection) will be exempt from the next in-person annual inspection if the Annual Lab Self-Audit is completed, emailed to EHS, and no new violations are self-reported.

7. LAB SAFETY ENFORCEMENT

Laboratories in which serious safety and/or compliance issues are found repeatedly will be brought to the attention of the UNM Chemical & Lab Safety Committee. The committee is comprised of professors, department chairs, and associate deans of research from various departments, as well as representatives from the Provost's Office and EHS. The committee has the authority to stop work in any laboratory that is not in compliance with UNM's Chemical Hygiene Plan and/or local, state or federal regulations.

ENVIRONMENTAL HEALTH & SAFETY

ATTACHMENT 1

Laboratory Inspection Checklist

Yes	Description (*-Requires Reinspection)
	General Lab Observations
	Emergency contacts (primary and secondary) posted on door or within lab*
	Hazard warnings posted on door or within lab*
	Hazard warnings posted in official "Designated Use" areas where carcinogens & reproductive toxins are used (arsenic, benzene, cadmium, carbon disulfide, formaldehyde, lead, mercury, nickel, trichloroethylene, toluene)
	PPE available (gloves, goggles/glasses, labcoats)*
	First aid kit available or nearby
	Spill kit available and location clearly marked*
	Aisles and doorways within the lab are at least 24" wide and are free of obstructions (clutter, equipment, furniture)
	Floors within the lab are free of liquids, evidence of spills, broken surfaces and tripping hazards*
	Trash is properly contained and segregated (no protruding sharps, no excess boxes or combustibles)
	Benchtops, counters and sinks are free from excess chemical residues
	Furniture is made of impermeable, non-porous material that can be easily cleaned and/or decontaminated
	Lab is free of coffee mugs, plates and other evidence of eating or drinking
	Emergency Equipment Observations
	Safety shower available
	Documentation of MONTHLY activation is available (initialed tag, activation calendar, etc.)
	Eyewash available
	Documentation of WEEKLY activation is available (initialed tag, activation calendar, etc.)
	Safety showers, eyewash stations, fire extinguishers, breaker boxes, and/or emergency shut-offs are free from obstructions and easily accessible
	Documentation of annual bump test of oxygen depletion sensor (if present) is available
	Fume Hood Observations
	Fume hood certification is current
	Fume hood is free of excess clutter/chemicals that may obstruct flow
	Fume hood is free of excess chemical residue and spills
	Fume hood sash is operable
	If perchloric acid is present and HEATED in the fume hood, the fume hood is designed for perchloric acid use*
	Chemical Storage Observations
	Flammables are stored in a flammables cabinets when not in use
	Flammables and oxidizers (nitrates, perchlorates, permanganates, hydrogen peroxide) are stored separately*
	Flammables stored in a household refrigerator are in sealed secondary container with dessicant or in a dessicator
	No more than 10 gallons of flammable liquids stored outside of a flammables cabinet
	Corrosives are stored in a corrosives cabinet
	Acids and bases are stored in separate spill trays and/or separate corrosives cabinets
	Organic acids (formic, lactic, acetic) & inorganic acids (hydrochloric, sulfuric, nitric) are stored in separate spill trays
	Peroxide formers are labeled by lab personnel with date of last opening
	Containers are in good condition and condition is easily assessed (no stacking)
	Glassware is stored in a manner that prevents it from falling off a shelf (in a tray or on a shelf with a lip)
	Chemical containers are closed
	Chemicals not in original container are properly labeled (name of chemical and hazards, if any)

Yes	Description (*-Requires Reinspection)
	No hazardous chemicals are stored on the floor (in spill tray under benchtop is acceptable)
	No chemical containers > 1 gallon are within the vicinity of a floor drain (if yes, then drain must be plugged)
	No containers of hazardous liquids > 1 gallon are stored higher than five feet above the floor
	No food and/or drinks stored in designated chemical storage refrigerator
	Chemical Waste Observations
	Chemical waste is generated within the lab
	Chemical waste has been determined to be HAZARDOUS or NON-HAZARDOUS by lab personnel
	Hazardous waste is stored in the same room where it was generated
	Hazardous waste containers are labeled with "HAZARDOUS WASTE", contents, and hazards
	Hazardous waste containers are in good condition
	Hazardous waste containers are closed
	Hazardous waste containers are stored in spill trays (liquids only)
	Hazardous chemical waste is being disposed of through EHS
	Compressed Gas Cylinder Observations
	Cylinders are labeled/clearly marked to identify contents
	Cylinders are stored upright and secured with a chain or strap
	Cylinders of oxygen are stored away from oil, grease and flammables/combustibles*
	Cylinders not being used are stored with the valve protection cap in place
	No more than 5 cylinders stored with one chain or strap
	Electrical Safety Observations
	No extension cords being used in a non-temporary manner (30 day maximum)*
	No extension cords being used with heat-producing equipment (hotplate, sauter iron, space heater, etc.)*
	No surge protector being used with heat-producing equipment*
	Electrical outlets within 6 feet of water source are Ground Fault Circuit Interrupter (GFCI) protected
	Electrical panel has 3 feet of unobstructed access
	Fire Safety Observations
	Fire extinguisher is available
	Fire extinguisher is inspected monthly
	No items stored within 18 inches of ceiling in lab with sprinkler system (except on shelving/cabinets against wall)
	No items stored within 24 inches of ceiling in lab without sprinkler system (except on shelving/cabinets against wall)
	Fire-rated doors are kept closed
	Ceiling tiles are in good condition (no missing and/or damaged tiles)

Yes	Description (*-Requires Reinspection)
	Interview and Document Review
	Lab personnel are familiar with the UNM CHP
	SOPs available for hazardous materials and/or processes used in lab
	Lab personnel are familiar with their lab's SOPs
	Lab personnel know where to find SDSs for hazardous chemicals
	Lab personnel who wear respirators (including N-95s) have been medically cleared, fit-tested, and trained on the use of their respirator*
	All hazardous chemicals are used inside a fume hood (make note of hazardous chemicals NOT used in a fume hood)
	Training records available (signed SOPs acceptable)
	Self-Audits available
	RMM inventory is current
	Someone is responsible for maintaining the lab's chemical inventory in RMM
	DEA Controlled Substances are used in the lab
	DEA Controlled Substances are kept locked up
	DEA Controlled Substances are kept track of in a logbook