

Safety and Environmental Checklist

Commission on Opticianry Accreditation

**To be included with the
Opticianry Degree / Ophthalmic Laboratory Self Study
Section IV part F**

IV. RESOURCES

F. Safety and Environmental Management

The following checklist is intended to evaluate the environmental and safety concerns in the operation of surfacing, finishing, and contact lens laboratories and clinics. It is based on Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), and accepted Universal Precautions and adopted by COA. It is not intended as a comprehensive guide to address all federal, state, and local requirements for environmental and safety compliance. It is recommended that federal, state, and local environmental agencies be contacted for requirements specific to the program.

As part of the Self-Study, this document must be reviewed and completed by the institution's Safety Officer and the Program Director, and included as an exhibit within the Self-Study. Whenever, there is a "No" checked, please comment and provide any pertinent documentation. Signatures of both the Safety Officer and the Program Director are required. The onsite team will review this information prior to the visit.

EVALUATION CRITERIA

YES

NO

* Checks in these sections must be explained in the "Findings" and documented in the "Substantiation" sections.

******* FOR SURFACING/FINISHING LABORATORIES**

1. A safety orientation is conducted for students to review safe operation of equipment and safety procedures in the laboratory. _____

- The institution should conduct a Student Orientation class prior to working with any of the equipment in the school.
- There should be a written lesson plan, signed rosters with a training outline.
- The lesson plan should cover safe work practices.
- The instructor should explain the Hazard Communication Program, go over eye safety, go over fire emergency procedures, emergency numbers, and personal protective equipment.
- It should also include safety precautions working with lab equipment, student's safety responsibilities following rules and reporting unsafe conditions to their instructor.

COMMENT: _____

2. All exits are clearly marked and illuminated by a reliable light source. _____

- Exit signs can be Electrical or Florescent (they can be lighted or glow in the dark.)
- Are there directions to exits, when not immediately apparent, marked with visible signs? (If the exit is not clearly apparent a sign and arrow "To Exit" should be posted.)
- Are exit signs provided with the word "Exit" in lettering at least 5 inches high and the stroke of the lettering at least 1/2 inch wide? (Standard safety signs should meet this requirement.)

COMMENT: _____

EVALUATION CRITERIA

YES

NO

3. There are sufficient exits to provide prompt escape in case of an emergency.

- Every room should have at least one exit that is clear at all times.
- The institution should have the local fire department inspector report in writing that the school meets the life safety codes.

COMMENT: _____

4. An OSHA workplace poster is displayed in a prominent location.

- Is the required OSHA work place poster displayed in a prominent location where all employees are likely to see it? (This can be provided by the state or federal OSHA office.)

COMMENT: _____

5. Emergency telephone numbers are posted where they can be readily found in the case of an emergency.

- Students should know the emergency numbers.
- Are the emergency numbers listed in the student handbook?
- Are emergency telephone numbers posted for fire and medical emergencies? (The safety bulletin board is a good location for the numbers.)

COMMENT: _____

6. Exits are free of obstruction.

- Make sure that all exits are not blocked by anything.
- Nothing should be placed in front of the exit to block access.

COMMENT: _____

7. A fire evacuation plan is clearly posted.

- The on site team should check to see that each area of training (i.e. class room, lab, clinics, etc.) have posted a detailed drawing of where you are currently located and which way is the nearest exit to evacuate the building.
- A drawing of the room and the nearest exit is recommended.

COMMENT: _____

EVALUATION CRITERIA

YES

NO

8. A qualified individual is identified in writing as the safety point of contact and performs annual documented safety inspections.

- A person must be qualified to conduct inspections. (This is usually done by the Facility Safety Manager or it can be done by the school using a checklist provided by COA.)

COMMENT: _____

9. Properly inspected portable fire extinguishers are provided in adequate number and type.

- Adequate fire extinguishers (one per classroom and lab).
- Fire extinguishers should be dry chemical or water. (Dry chemical is recommended, they should check with their local fire inspector for the approved size.)
- Inspected monthly - check card for date and signature of inspecting personnel.
- Are fire extinguisher signs posted so you can find them fast in case of emergency? (Fire extinguisher sign should be above the fire extinguisher.)
- Clear access, not blocked. (Nothing in front of extinguishers.)
- Co2 extinguishers. (Co2 are hard to handle and are heavy and the container must be tested every five years. They are approved but should be replaced with dry chemical.)

NOTE: The schools may use water extinguishers but a chemical unit should be available for electrical fires. Fire extinguishers located outside the lab should not be farther than 75 feet.

COMMENT: _____

10. A written laboratory safety policy is posted and readily available for staff and students.

The policy should contain:

- School Safety Policy
- Hazard Communication Program
- General Safety Procedures
- Guidelines on how to report an accident.
- Fire Safety
- List of Personal Protective Equipment - and where to wear or use it.
- Electrical Safety

COMMENT: _____

EVALUATION CRITERIA

YES

NO

11. Laboratory housecleaning is clean and orderly. (This refers to housekeeping and stacked materials, tripping hazards, and is mainly a judgment call.)

- Are all work sites clean and orderly?
- Are work surfaces kept dry or appropriate means taken to assure the surfaces are slip-resistant?
- Proper storage of chemicals?
- Any tripping hazards?
- Eliminate clutter

COMMENT: _____

12. Electrical panel boxes are labeled for disconnect.

- Are electrical panel boxes properly labeled? (Which circuit each switch is connected to turn off in an emergency?)
- Are panel boxes kept clear? (Nothing in front of panel box blocking access)
- No tape on switches. Adhesive tape placed on breaker switch prevents it from working properly.
- Are there extension cords in use? Extension cords are not permanent, used in the place of electrical outlets. Extension cords are not allowed.
- Check for frayed electrical cords

COMMENT: _____

13. Appropriate safety warning signs are posted throughout the laboratory (i.e. noise, safety glasses, eyewash station, first aid kit, MSDS, fire extinguisher).

- Eye protection
- Noise hazards
- Hot warning on frame heaters
- Eyewash Station
- Danger Signs
- Bio-Hazard
- All rooms labeled as to function
- Fire extinguishers or alarms
- Exits
- No Smoking, eating and drinking

COMMENT: _____

EVALUATION CRITERIA

YES

NO

14. Electrical circuits are protected with ground fault interrupters in wet locations. (Installed 6 feet from wet location.)

- Check in the lab around all areas where water is present, and make sure ground fault interrupters are installed.
- Are ground fault interrupters installed where needed? (Use within six feet of sinks and other wet locations such as tinting units.)

COMMENT: _____

15. The institution has established procedures for receiving student/staff safety complaints.

- Written procedure on how to report unsafe conditions in the institution. Report to instructor.
- Check to see if the institution has a working procedure for handling in-house employee complaints regarding safety and health.
- Check and see if in-house complaints have been made and what action was taken.

COMMENT: _____

16. Smoking is prohibited in the laboratory.

- Smoking not permitted in lab
- Check and see if No Smoking signs are posted

COMMENT: _____

17. Permanent wiring is used in place of extension cords. (For computers, surge protectors are permitted.)

- Make sure no extension cords are being used, except for computer equipment.
- Check all outlets and faceplates to make sure none are cracked
- Check for frayed electrical cords. Spliced cords are not allowed.
- Make sure electrical outlets are not overloaded
- The use of multi-plug adapters are not permitted except for surge protectors for computers.

COMMENT: _____

EVALUATION CRITERIA

YES

NO

18. A regular safety inspection of machinery and equipment is conducted.

- A documented equipment inspection program should be in place.
- Check and see if the institution has a documented safety inspection, it should be written.
- Check and see how often the institution is conducting an inspection. (COA requires at least an annual documented inspection.)

COMMENT: _____

19. The laboratory is well ventilated to remove dust and odors.

- The Material Safety Data Sheets (MSDS) for nearly all tinting chemicals (i.e. dyes, neutralizers, UV) require use in a well ventilated area. Several ways to determine that: ask students in the area if the odors are coming from where the tinting is occurring, or lack of exhaust ducts near the tinting pots. Observe where they edge lenses and determine if the machines produce dust from either the lens cutting or vacuum system. If you have concerns the Industrial Hygienist should evaluate the area. This is the institution's responsibility.

COMMENT: _____

20. The program has established a written OSHA Hazard Communication Program.

- This is a Federal requirement and part of the curriculum.
- Check to make sure the institution has a written HAZCOM Program that includes:
 - Copy of Title 29 Code of Federal Regulations 1910.1200
 - List of hazardous chemicals
 - Employee access to MSDS
 - Check and make sure that proper labels are on all chemicals
 - Make sure that employees are receiving training about the hazards to employees

COMMENT: _____

21. There are Material Safety Data Sheets readily available for staff and students for each hazardous substance used by the program.

- Check to see if the institution has MSDS posted in the lab so students can review.
- Check to see if there is an MSDS for each chemical substance used in the lab.

COMMENT: _____

EVALUATION CRITERIA

YES

NO

22. The program has a published list of all chemicals used in the laboratory. _____

- Must publish and identify all chemicals.
- A list of all chemicals should be available.

NOTE: All chemicals that the students come in contact with should be on a list with Material Safety Data Sheets (MSDS) available and the students should know where the MSDS' s are located.

COMMENT: _____

23. Safety precautions for use of low-melting point alloy are observed: _____

Area is posted as a “lead work area” - no eating, drinking, or smoking is allowed.

- Safety glasses are worn at all times.
- Proper hand protection techniques are observed (i.e. gloves, hand washing....)
- Eye hazard sign posted
- Documented MSDS training is conducted
- The MSDS should be available and the students should know where the MSDS for alloy is located.

COMMENT: _____

24. Chemicals in the laboratory are properly labeled and stored. _____

- Manufacturer responsibility to properly label the chemicals (They have to place proper labels and warnings on the container)
- Employer must ensure all containers are labeled
- Must include manufacturer's name
- Labels must be readable
- Name and specific hazards of chemicals

COMMENT: _____

25. Approved safety glasses are required to be worn at all times in areas where there is a risk of eye injuries. _____

- Must meet ANSI Z87 Standards
- Permanent side shields
- Protections for the eyes from all sides
- Splash protection (Goggles)
- Plano eyewear

COMMENT: _____

EVALUATION CRITERIA

YES

NO

26. Noise levels exceeding 85dBA have been identified (tested when all machinery and air compressor units are running simultaneously).

- Check to see if the institution has conducted a noise level test.
- Check to see if the institution has documented noise level.

COMMENT: _____

27. Hearing protection is made available for environments exceeding 85dBA.

- If the noise level is above 85dBA ear plugs should be provided and worn (This noise exposure should be above and average of 85dBA for eight hours)
- Check to see if employees are using ear protectors.

NOTE: If the institution has documented noise levels exceeding 85dBA check and see if staff and students are wearing ear protectors and have they been properly fitted and instructed in their use.

COMMENT: _____

28. An ANSI approved eye wash station is operational and maintained.

- Check to see if the eye wash station is ANSI approved.
- Make sure it is not blocked (No material in front of eyewash)
- Make sure it operates with one motion (It operates with one handle)
- Make sure it is flushed and documented weekly (At least for 3 minutes)
- Make sure the station is posted with an eye wash sign
- Make sure the eye wash station is located in lab areas

NOTE: Eyewash bottles are not permitted because they do not meet ANSI Standards.

COMMENT: _____

29. A first aid kit is easily accessible with necessary supplies periodically inspected and replenished.

- Make sure first aid kits are easily accessible to each work area.
- Make sure you check supply's expiration dates to ensure supplies have not expired.
- Have first aid kit supplies been approved by a physician, indicating they are adequate for the area and operation.

COMMENT: _____

EVALUATION CRITERIA

YES

NO

30. Guards are provided to protect students from hazards from moving parts (i.e. exposed belt on hand beveler).

- Check all optical machinery to ensure guards have been installed.

COMMENT: _____

31. Laboratory waste is identified and classified as hazardous or non-hazardous (i.e. coolants, dyes, neutralizers, surfacing compounds - fine and polish, alloy).

COMMENT: _____

32. Hazardous and non-hazardous waste is disposed or and/or treated in a proper and lawful manner.

NOTE: The institution should have a Standard Operating Procedure (SOP) outlining the proper procedures for optical laboratory waste products. If they dispose of the material down the drain, they should have a letter or permit from the local water authority permitting this discharge. How do they know it is legal to dispose of the waste if they have not checked? We do not know. They should have an OK from the local sewer district. The district will make the determination.

COMMENT: _____

******* FOR CONTACT LENS LABORATORIES AND CLINICS:**

EVALUATION CRITERIA

YES

NO

1. The contact lens work area is clean and orderly.

- instrumentation is clean and in good operating condition
- inventory is appropriately organized and stored
- there is an appropriate procedure in place for biological waste disposal, where appropriate
- biological waste is clearly labeled

COMMENT: _____

2. Disposable latex gloves and/or finger cots are available for use.

- gloves and cots should be free of donning powder
- gloves and cots should be stored in a manner which avoids contamination by dust and debris
- latex products should be fresh and not oxidized

COMMENT: _____

3. Students are trained in proper hand-washing techniques, which are regularly required.

- hand washing procedure is posted
- there is evidence that procedure is followed

COMMENT: _____

4. Hand-washing facilities provide running water, soap, and single-use towels. (Antimicrobial containing products are preferred, antiseptic hand cleansers or towelettes are acceptable. Hands must be washed with soap and running water as soon as possible.)

- anti-microbial products are compatible with contact lens handling
- hand cleansers or towelettes which are antiseptic and compatible with contact lens handling may be used

COMMENT: _____

EVALUATION CRITERIA

YES

NO

5. An infection control policy is published and available.

- policies and procedures for barrier protection, hand washing, and disinfection of instrumentation and inventory are published and available
- policies and procedures for the disposal of biological waste products are posted, when appropriate

COMMENT: _____

6. A disinfectant detergent is used for cleaning hard surfaces and instruments.

- cleaning agents for instrumentation involving patient contact should be antimicrobial
- all other cleaning agents should be bacteriostatic

COMMENT: _____

7. Proper hand washing between patient contact is required of staff and students.

- notice regarding hand washing policy is posted

COMMENT: _____

8. Infection control training is provided for staff and students.

- infection control procedures and policies are published and available
- staff and students are familiar with and can enumerate these policies and procedures

COMMENT: _____

9. Procedures for contact lens disinfection are written, posted, and adhered to.

- instruction for disinfection and recapping of diagnostic lenses is posted
- solutions used for storage of diagnostic inventory are active against HIV/HBV

COMMENT: _____

10. Soft contact lenses are disposed of in accordance with applicable regulations.

- applicable regulations have been researched and are followed appropriately

COMMENT: _____

EVALUATION CRITERIA

YES

NO

11. Safety goggles are available and required when splash hazards exist.

- safety goggles are conveniently located near rigid lens modification units

COMMENT: _____

12. A properly maintained ANSI approved eyewash station is installed in the contact lens modification area.

COMMENT: _____

13. Solutions/chemicals are current, properly labeled and stored.

- all contact lens solutions are unexpired
- solution bottles that are opened show no signs of contamination (i.e. fluorescein strips, etc.)

COMMENT: _____

14. Appropriate safety warning signs are posted.

COMMENT: _____

Printed Name of Safety Officer

Signature of Safety Officer

Date

Printed Name of Program Director

Signature of Program Director

Date