This document is a transcript of FIU Environmental Health & Safety’s Laboratory Self Audit (LSA). It is meant to help your perform an accurate walkthrough of your lab space in order to complete the LSA online. The transcript can also be used as a tool to increase awareness by conducting a visual walk through of the space with your team members. The LSA must be submitted online, through the Qualtrics portal in order to quantify the results.

Q1.1 Welcome to the Florida International University’s Environmental Health & Safety 2016 Laboratory Self Audit! Please ensure that you have the knowledge about the operations and hazards associated with the lab area(s), and have the authority to influence the implementation of corrective actions, such as the PI, supervisor, lab manager, or lab safety officer. The questionnaire is divided into six (6) sections: Identification, Administrative, General, Hazardous Waste & Satellite Accumulation, Special Hazards, and Safety Equipment. Please be objective and honest in the LSA. The LSA is designed to help identify areas where improvement is needed. You and your staff are in the best position to know the hazards that are present in your processes/environment and implement appropriate controls.

Q1.2 Please initial below to verify that you will follow FIU’s honor system and answer this questionnaire to the best of your abilities.
Q2.1 Identification Section

Q2.2 Identification
   Building Initials (1)
   Room Number (2)
   Department Name (6)
   First Name (3)
   Last Name (4)
   FIU Email Address (5)

Q2.3 Define your relationship to the Laboratory
   ☐ Principal Investigator (1)
   ☐ Lab Manager (2)
   ☐ Lab staff (3)
   ☐ Other (4) ____________________

Q2.4 Select ALL that apply to your lab.
   ☐ Carcinogen
   ☐ Biohazard
   ☐ Compressed Gas or Liquids-Asphyxiate
   ☐ Compressed Gas or Liquids-Flammable
   ☐ Compressed Gas or Liquids-Non Flammable
   ☐ Compressed Gas or Liquids-Oxidizers
   ☐ Compressed Gas or Liquids-Toxic
   ☐ Compressed Gases or Liquids
   ☐ Cryogenic Materials
   ☐ Explosives
   ☐ High Electric Fields
   ☐ High Magnetic Fields
   ☐ High Voltage Materials
   ☐ IR Radiation Producing Equipment
   ☐ Laser Equipment
   ☐ Micro-Wave Producing Equipment
   ☐ Nano Materials
   ☐ Acids
   ☐ Irritants
   ☐ Sensitizers
   ☐ Toxics
   ☐ Peroxide Forming Materials
   ☐ Radio-Wave Producing Equipment
   ☐ Radioactive Materials
   ☐ UV Radiation Producing Equipment
   ☐ Water Reactive Materials
   ☐ X-Ray Producing Equipment
   ☐ Other (please specify)_________
Q3.1 Administrative Section

Q3.2 Are all entry points labeled with the names & telephone numbers of the PI/Lab Manager & alternates?
   (Emergency telephone numbers for the PI/Lab manager and alternate must be posted on all lab entrance doors.)
   ☑ Yes (1)
   ☑ No (2)

Q3.3 Have all the laboratory personnel received all of the appropriate training and are the training records available?
   (All lab personnel must complete the required safety training PRIOR to starting work or as job duties are added/changed. A list of required on-line safety training based on hazard is available here. PI/Supervisor should also provide on-the-job training for all safety hazards (procedures, equipment, etc.) PRIOR to the lab personnel starting work.)
   ☑ Yes (1)
   ☑ No (2)

Q3.4 Is the chemical inventory current and available?
   (A hard copy of the inventory must be available and easily accessible. The chemical inventory for all FIU lab areas should be registered with EHS Assist. If your inventory is not available via EHS Assist or if you are having problems accessing your inventory, contact the EH&S Environmental Compliance Manager at 348-2622 or 348-2621)
   ☑ Yes (1)
   ☑ No (2)

Q3.5 Is/Are the SDS(s) available?
   (According to the Globally Harmonized System (GHS), a hard copy or e-copy of the Safety Data Sheet(s) (SDS) must be available for all the chemicals/materials within your laboratory. All personnel must know where the SDS are located and/or know how to find the SDS on line. If you need to print out a copy go through your EH&S Assist Portal; if you have any questions about accessing the SDS, contact the EH&S Environmental Compliance Manager, at 348-2622 or 348-2621.)
   ☑ Yes (1)
   ☑ No (2)

Q3.6 Is the signage appropriate (corrosive, carcinogen, flammable, controlled access, etc.) for the hazards within the lab?
   (Signage should be appropriate for the type of hazards present in the lab. Signage should be posted on the entrances to the lab areas and any equipment where the hazards are used or stored, and should be consistent with the GHS requirements (click here for more information on GHS). Location signage should also be posted for
safety showers, eyewash stations, first aid equipment, spill kits, and other safety equipment. Warning signs should be posted where special or unusual hazards exist.)

☐ Yes (1)
☐ No (2)

Q3.7 Are the emergency procedures available and/or posted?

(Emergency procedures for hazardous spills, incidents, injuries, evacuations, and lab shutdowns should be posted, accessible to and reviewed by lab staff, and updated as needed or as procedures change. Lab staff should be trained on what to do, where to go, and who to notify.)

☐ Yes (1)
☐ No (2)

Q3.8 Is the access into the lab limited or restricted to authorized personnel?

(Per FIU Security of Special Hazards Policy, access to lab areas should be restricted to lab personnel only. Lab doors should not be propped open unless lab staff is present. Unauthorized personnel should not have access to the lab area unless lab staff is present. Check the key card access records every 4-6 months to ensure that unauthorized personnel are not listed. To prevent unauthorized entry by custodial personnel when the lab is closed, place the trash bins outside of the lab entrance door.)

☐ Yes (1)
☐ No (2)
Q4.1 General Section

Q4.2 Are the proper and separate containers available for disposal of broken glass, sharps, and biohazard materials?
(Appropriate containers should be available for the disposal of broken glass, sharps and Biohazardous materials. Containers must be properly labeled for contents. Contact the Biosafety Office (348-3387 or 348-2621) for more information on sharps and biohazard containers. PIs/Lab managers are responsible for purchasing the appropriate broken glass containers.)

- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)

Q4.3 Is the lab free of evidence of food and drink consumption?
(Food and drink consumption/storage is strictly prohibited in the lab area. Consumption or storage of food/drink in the lab area presents the possibility of contamination and ingestion of hazardous materials. Food/drink should not be stored in refrigerators, shelves, cabinets, freezers, or counter-tops where hazardous materials are present.)

- Yes (1)
- No (2)

Q4.4 Does the refrigerator have a current inventory of the item(s) stored within?
(An inventory of the items stored in the refrigerator/freezer should be posted on the unit's door. If it is hazardous chemicals, each chemical must be listed and correspond with the information provided in EHS Assist. Biological samples must be labeled as the type of sample (i.e. human blood, cell lines, etc.). Radioactive materials must be labeled for the type of radioactive material.)

- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)

Q4.5 Are the employees wearing the appropriate personal protective equipment?
(Employees should wear, at the minimum, a lab coat, gloves, and safety goggles. Employees should also wear closed-toed shoes and long pants to protect skin from splashes, spills, and drips. Long hair should also be tied back away from the face. Gloves must be worn when handling hazardous materials or contaminated items/surfaces. If you are required to wear a respirator, then you must enroll in the FIU Respiratory Protection Program for medical evaluation, fit testing, and training. For more information, contact EH&S at 348-2621)

- Yes (1)
- No (2)
Q4.6 Is personal protective equipment (PPE) available and in good condition?
(Prior to use, PPE should be checked for holes, wear and tear, or damage, and should be replaced if needed.)
- Yes (1)
- No (2)

Q4.7 Is the lab free of tripping/slipping hazards?
(Aisles should be kept free of equipment, electrical cords, or any other items that may cause obstruction or tripping hazards. Spills should be cleaned and reported immediately. Areas with wet areas should have appropriate warning (caution) signs.)
- Yes (1)
- No (2)

Q4.8 Is the work area clean and uncluttered?
(Proper housekeeping should be observed. Keep work areas uncluttered, and clean frequently. Put unneeded materials back in storage promptly.)
- Yes (1)
- No (2)

Q4.9 Are the chemicals being stored in appropriate containers?
(Containers should be in good condition with a lid, no sign of leakage, be compatible with the chemical stored in it, and be labeled in accordance with GHS requirements. For more information on GHS, click here.)
- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)

Q4.10 Are the chemical containers properly labeled?
(Chemical formulas and structural formulas alone are not acceptable, except for labeling the container in which small quantity of a compound synthesized in the laboratory is stored. Chemical containers should be labeled with the chemical name as per the SDS. This also applies to secondary chemical containers. The chemical formula should not be used in substitution of the chemical name. Chemicals should be labeled in accordance with GHS requirements. For more information on GHS, click here.)
- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)
Q4.11 Are the chemicals stored according to classification and compatibility (not alphabetically)?
   (E.g. corrosives, flammables...Incompatible materials must be segregated by means of barriers (E.g. cabinets, walls, other containers, or other devices).)
   ✅ Yes (1)
   ✅ No (2)
   ✅ N/A (does not apply to this lab) (3)

Q4.12 Are the flammable liquids properly stored - volume is appropriate to the type of lab per NFPA 45?
   (The maximum quantity of flammable liquids in each lab suite / fire area depends upon the storage configuration: Glass, metal or plastic 10 gal, Safety cans 25 gal, Flammable liquid storage cabinets 180 gal.)
   ✅ Yes (1)
   ✅ No (2)
   ✅ N/A (does not apply to this lab) (3)

Q4.13 Are the chemical carcinogens clearly labeled?
   (Chemical carcinogens should be clearly labeled (e.g. “Warning- Carcinogen may cause cancer”) and have the appropriate pictogram in accordance with GHS requirements. For more information on GHS, click here.)
   ✅ Yes (1)
   ✅ No (2)
   ✅ N/A (does not apply to this lab) (3)

Q4.14 Are the peroxidizable compounds dated to show when it was received and opened?
   (The date of receipt must be clearly written on the container and/or logged in a sheet.)
   ✅ Yes (1)
   ✅ No (2)
   ✅ N/A (does not apply to this lab) (3)

Q4.15 Are the peroxidizable compounds checked for peroxides OR disposed of at least every 6 months?
   (The container shall not be older than 6 months or documentation of inspections conducted every 6 months must be available.)
   ✅ Yes (1)
   ✅ No (2)
   ✅ N/A (does not apply to this lab) (3)
Q4.16 Is the lab implementing waste minimization practices?
(The lab should be purchasing only the amount of chemical necessary for the job in order to not produce excess waste. The lab can also consider substituting hazardous materials/chemicals for less hazardous option.)
☑ Yes (1)
☒ No (2)

Q4.17 Are there emergency spill response supplies available and appropriate for the type of materials handled within the lab?
If several chemicals classes are stored in the lab, a universal spill kit is appropriate. However, if specific chemicals are stored (e.g. mercury) a spill kit for the specific chemical must be available. Check the spill kits often to make sure that they are properly stocked. Ensure that all lab personnel have been trained to know what to do if there is a spill, the location of the spill kit, how to use the spill kit, and how to restock the spill kit. If you have any questions regarding spills kits, contact the Environmental Compliance Manager at 348-2622 or 348-2621)
☑ Yes (1)
☒ No (2)

Q4.18 Are the aisle and/or corridors in compliance with Fire Code requirements (minimum 30" clearance)?
(The National Fire Prevention Association (NFPA) requires a clear path of egress in all aisles and/or corridors (30 inches of clearance must be observed without any obstructions).)
☑ Yes (1)
☒ No (2)

Q4.19 Are flammable materials being stored at least 48" from the lab exit and 36" from electrical equipment?
(Flammable materials must be stored in a flammable storage cabinet, or in a laboratory fume hood (Note: do not permanently store any chemicals inside the fume hood. If the lab is temporarily storing flammable material in the fume hood then: storage of other materials/chemicals are not permitted, conducting experiments inside the same hood is not permitted, and/or the acceptable amount is as small as practical.) Flammable materials must be stored at least 48 inches away from doors or emergency exits and 36 inches away from electrical equipment.)
☑ Yes (1)
☒ No (2)
☒ N/A (does not apply to this lab) (3)

Q4.20 Is the fire extinguisher easily accessible and wall mounted OR in a fire cabinet?
(The fire extinguisher must be easy to access without obstructions (Note: a 3 foot radius of clearance is observed). The fire extinguisher is usually located by the exit; and either mounted on a wall-mount, or within a fire extinguisher cabinet. If your area
does not have a fire extinguisher or if the fire extinguisher needs to be replaced, contact the EH&S Fire Safety Specialist at 348-1331 or 348-2621)

- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)

Q4.21 Are the sprinkler heads unobstructed?
-The sprinkler heads must maintain a clearance of 18 inches from the ceiling. The sprinkler heads must not be altered or used in any other way than to dispense water in the event of a fire. They must not be: painted, overly dusty, or being used to suspend items.

- Yes (1)
- No (2)

Q4.22 Are all fire alarm devices (horns, strobes, detectors, pull stations) unobstructed?
-The fire alarm devices must be visible to every occupant in the room at all times. They must be unobstructed at all times.

- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)

Q4.23 Is there a 36 inch area of clearance around electrical control panels?
-The surrounding area around an electrical control panel must remain clear of all obstructions for 3 feet.

- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)

Q4.24 Are the heat generating devices (water baths, refrigerators, etc.) plugged directly into outlets?
- All heat generating devices must be powered directly from the wall outlet. Extension cords are fire and tripping hazards and thus are prohibited.

- Yes (1)
- No (2)
- N/A (does not apply to this lab) (3)
Q4.25 Are the electrical receptacles in good condition (no cracks or chips present), and face plates in place?
   (The electrical receptacle must be in good condition with no visible damage done to the face plate. All electrical receptacles must have a face plate installed.)
   ☑ Yes (1)
   ☑ No (2)

Q4.26 Are all cords away from doors, walkways and metal furniture?
   (Electrical are fire and tripping hazards, ensure that they are not obstructing the path of egress, including (but not limited to) doors, doorways, aisles, corridors, hallways etc. Also, ensure the electrical cord is not in close proximity to metal furniture.)
   ☑ Yes (1)
   ☑ No (2)
### Q5.1 Hazardous Waste & Satellite Accumulation Area (SAA) Section

<table>
<thead>
<tr>
<th>Q84</th>
<th>Does your lab store, handle, or produce hazardous waste?</th>
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<tbody>
<tr>
<td>✅ Yes (5)</td>
<td></td>
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<tr>
<td>✅ No (6)</td>
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</tbody>
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**If No Is Selected, Then Skip To End of Block**

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<thead>
<tr>
<th>Q5.2</th>
<th>Are hazardous waste containers properly labeled as &quot;HAZARDOUS WASTE&quot;?</th>
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<tbody>
<tr>
<td>✅ Yes (1)</td>
<td>(Hazardous waste containers must display a FIU Hazardous Waste label. Labels are available on the EH&amp;S Website: ehs.fiu.edu under the &quot;Hazardous Waste&quot; section.)</td>
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<tr>
<td>✅ No (2)</td>
<td></td>
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</tbody>
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<tr>
<th>Q5.3</th>
<th>Is SAA in an appropriate location away from sinks and drains?</th>
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<tbody>
<tr>
<td>✅ Yes (1)</td>
<td>(SAA must be located away from any sinks and drains to prevent any accidental spillage which will affect water systems.)</td>
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<tr>
<td>✅ No (2)</td>
<td></td>
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<tr>
<th>Q5.4</th>
<th>Is there less than 55 gallons of waste stored in the SAA?</th>
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<tr>
<td>✅ Yes (1)</td>
<td>(SAA must not generate a total of 55 gallons of hazardous waste in one lab location.)</td>
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<tr>
<td>✅ No (2)</td>
<td></td>
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<tr>
<th>Q5.5</th>
<th>Is there more than 1 quart of P-listed (acutely toxic) waste stored in the SAA?</th>
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<tbody>
<tr>
<td>✅ Yes (1)</td>
<td>(Labs may not exceed more than 1 quart of p-listed waste/ acutely hazardous wastes. A complete list of p-listed (acute) chemicals can be found here)</td>
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<tr>
<td>✅ No (2)</td>
<td></td>
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</tbody>
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<tr>
<th>Q5.6</th>
<th>Is the SAA located in an appropriate area?</th>
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<tbody>
<tr>
<td>✅ Yes (1)</td>
<td>(SAA should be located away from high traffic walkway areas, sinks, and floor drains.)</td>
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<tr>
<td>✅ No (2)</td>
<td></td>
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</table>
Q5.7 Is the date on the hazardous waste label left blank while it is being accumulated in the SAA?
(The “Accumulation Start Date” is the date in which the container is full and/or ready to be moved to the Central Accumulation Area (CAA); the hazardous waste must be transferred 72 hours from that date the CAA. According to 40 CFR 262: the date must be added when one (1) 55 gallon drum is exceeded; OR one (1) quart of p-listed (acute) waste.)
☑ Yes (1)
☒ No (2)

Q5.8 Are the containers in the SAA in good condition?
(Containers in the SAA must not have any chemical residue on them, must not appear to have any indentations on them. Indentations could cause cracks and container leakage.)
☑ Yes (1)
☒ No (2)

Q5.9 Are all the containers in the SAA closed when they are not being used?
(All waste containers must be closed when not in use. This will prevent the possibility of an accidental chemical exposure.)
☑ Yes (1)
☒ No (2)

Q5.10 Are waste bottles filled to a safe level?
(Waste bottles, drums and containers must not be filled to the top. Overfilled containers will cause spills to occur when trying to close the bottle.)
☑ Yes (1)
☒ No (2)

Q5.11 Are all signs that are posted inside the SAA, intact and legible (no tears or smears)?
(Each lab should have legible and intact copies of the FIU Satellite Accumulation Signage, Laboratory Hazardous Waste Satellite Accumulation Area Requirements, and SAA Weekly checklist. Click here for access to the documents)
☑ Yes (1)
☒ No (2)

Q5.12 Is hazardous waste kept in a secondary containment?
(The secondary containment should be compatible with the material and should be able to hold 110% of the hazardous waste.)
☑ Yes (1)
☒ No (2)
Q5.13 Is the SAA located near the point of generation?
(Hazardous waste must NOT be transferred from one lab to another. Waste must remain at the point of origin, and an appropriate SAA must be created in that location.)
☑ Yes (1)
☒ No (2)

Q5.14 Are compatible wastes are being stored next to each other?
(Only keep compatible waste in the same secondary container within the SAA to prevent potential chemical reactions. If waste is incompatible, use a separate secondary container for each incompatible waste.)
☑ Yes (1)
☒ No (2)

Q5.15 Are there stickers restricting chemical discharge displayed by sinks?
(Stickers must be visible and posted at each sink. Contact the Environmental Compliance Officer for more info at 348-2622 or 348-2621)
☑ Yes (1)
☒ No (2)

Q5.16 Does your hazardous waste labels state the chemical name (not the chemical formula)?
(The hazardous waste label must not contain any chemical formulas in the chemical description area. It must contain the complete name of the chemical. Example: Sodium Chloride NOT NaCl)
☑ Yes (1)
☒ No (2)

Q6.1 Special Hazards Section

Q6.2 Does your lab handle, store, or use radioactive materials?
☑ Yes (1)
☒ No (2)

Q6.3 Does your lab handle, store, or use nano materials?
☑ Yes (1)
☒ No (2)

Q6.4 Does your lab handle, store, or use lasers?
☑ Yes (1)
☒ No (2)
Q6.5 Does your lab handle, store, or use controlled substances?
- Yes (1)
- No (2)

Q6.6 Does your lab handle, store, or use biohazardous materials?
- Yes (1)
- No (2)

Answer If “Does your lab handle, store, or use biohazardous materials?” Yes Is Selected

Q6.7 If your lab deals with biohazardous materials, please select all that apply:
- Human cell lines/tissues/blood/body fluids
- Animals
- Select Agents/Toxins
- Biological Toxins
- Recombinant DNA
- Viruses
- Parasites
- Viruses
- Bacteria ( 
- Fungi
- Other (please describe) ______________________

Q6.8 Does the lab have equipment/machines that require machine guards, lockout/tagout, or present additional safety hazards?
(Examples of machines that may require guarding are guillotine cutters, power saws, or shears. Any machines/equipment that have the potential to release hazardous energy whenever servicing or maintenance is done require lockout/tagout. For more information, contact the Industrial Safety Office at 348-8355 or 348-2621)
- Yes (1)
- No (2)
Q7.1 Laboratory Safety Equipment Section

Q7.2 Does your lab have emergency eyewash and/or shower units?
(Emergency eyewash and shower units are designed to deliver water to rinse contaminants from a user’s eyes, face or body in the event of an emergency. If your lab does not have one in place, contact the Lab Safety Technician at 348-7625 or 348-2621)
✔ Yes (1)
✔ No (2)

Answer If “Does your lab have emergency eyewash and/or shower units?” Yes Is Selected

Q7.3 If so, is it available/accessible (free from all obstructions)?
(The path to, and/or the area around the emergency wash unit must not be obstructed (3 foot clearance is observed). If your lab has a squeeze bottle, ensure the expiration date is valid.)
✔ Yes (1)
✔ No (2)

Q7.4 Does your lab have a chemical fume hood?
(A chemical fume hood is a local exhaust ventilation device designed to reduce airborne concentrations of hazardous chemicals.)
✔ Yes (1)
✔ No (2)

Answer If “Does your lab have a chemical fume hood?” Yes Is Selected

Q7.5 Is the hood(s) clear of excessive storage?
(OSHA advises about storage within the fume hood: Amounts permitted should be as small as practical. Storage on bench tops and in hoods is inadvisable… Periodic inventories should be conducted, with unneeded items being discarded or returned to the storeroom/stockroom.)
✔ Yes (1)
✔ No (2)

Q7.7 Does your lab handle, store, or use compressed gas cylinders?
(A compressed gas cylinder is a vessel that stores gases under pressure.)
✔ Yes (1)
✔ No (2)
### Q7.8  All gas cylinders are properly secured in an upright position?

(All gas cylinders must be secured with a wall mount bracket that includes a firm strap (i.e. polypropylene strap) or a chain.)

- Yes (1)
- No (2)

### Q7.9  Have all the laboratory personnel received all of the appropriate training and are the training records available?

(All lab personnel must complete the required safety training PRIOR to starting work or as job duties are added/changed. A list of required online safety training based on hazard is available here. PI should also provide on-the-job training for all safety hazards (procedures, equipment, etc.) PRIOR to the lab personnel starting work.)

- Yes (1)
- No (2)

### Q7.10  Are cylinders clearly labeled with the full/in-service/empty tags?

(Empty cylinders need to be separated from full cylinders.) (All compressed gas cylinders must be clearly labeled in order for emergency responders to quickly and easily identify the full, in service, and/or used cylinders.)

- Yes (1)
- No (2)

### Q7.11  Are cylinders being stored away from doors and emergency exits?

(All cylinders must be secured with a strap or chain, upright, and stored at least 48 inches away from doors and emergency exits. Full and used tanks must be stored separately and easily identified as either: full or empty.)

- Yes (1)
- No (2)

### Q7.12  Does your lab have a biosafety cabinet?

(Biological Safety Cabinets (BSC) should be used as primary barriers when working with biohazardous or infectious agents. Please refer to the FIU Biosafety Cabinet Manual for more information.)

- Yes (1)
- No (2)
Answer If “Does your lab have a biosafety cabinet?” Yes Is Selected

Q7.13 If yes, has the biosafety cabinet been certified within the past year?
   (Biosafety cabinets are required to be certified annually. If you have a biosafety cabinet that requires certification, please contact the Biosafety Officer at 348-3387 or 348-2621)
   ○ Yes (1)
   ○ No (2)