# Listing of Inspection Categories

**Georgia Institute of Technology**

**LAB**

| | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| AC | Administrative Controls | | | | |
| | ACD01 | Lab has knowledge of the EHS web page to access all necessary lab safety-related documents (policies, forms, templates, etc.) NOTE: it is recommended that the page be bookmarked by lab members. www.ehs.gatech.edu<br>*All employees working with and around hazardous chemicals must have access to information on how to safely handle such materials as well as training. Access to the EHS homepage will ensure that resources and/or proper contacts can be reached.*<br><br>*Incorporate the EHS web page into SOP. Include EHS web address with exterior or interior signage. Show or convey knowledge of access to this page during the course of the lab inspection process.* | ☑ | | 1 |
| | ACD02 | Training documentation present in lab/accessible location: Required: Lab Safety 101, Right-to-Know, Process-specific: General Biosafety, Bloodborne Pathogens, Recombinant DNA, Shipment of Dangerous Goods, Chematix, Fire Safety, Receipt of HazMat<br>*Ensures all employees working in the lab are trained on basic laboratory techniques as well as process specific protocols to ensure people are trained on safety procedures.*<br><br>*Print out all online learning courses. Keep certificates in a three ring binder for easy access. Create a spreadsheet for all staff that lists all courses taken including process specific hands on training. This will be a way to document when a person was trained on a specific process or piece of equipment.* | ☑ | | 2 |
| | ACD03 | Lab has up-to-date biosafety approvals:<br>Biological Materials Safeguards Committee: Work with biological/infectious agents or toxins and/or;<br>Institutional Biosafety Committee: Research involving recombinant or synthetic nucleic acid molecules<br>*Biosafety protocols must be reviewed and approved prior to the start of a new project. This ensures that the biosafety level is appropriate and the proper controls are in place for worker safety.*<br><br>*Visit the Biosafety Protocol Webpage on the EHS Website to read more about the approval process and access links and forms required for submission.* | ☑ | | 3 |
| | ACD04 | Lab maintains an inventory log for Select Agent Toxins in Exempt Quantities and/or DEA Controlled Substances.<br><br>*The Federal Select Agent Program oversees the possession, use and transfer of biological select agents and toxins, which have the potential to public health.*<br>*When maintained at quantities below an exemption limit (per PI), some toxins are exempt from the Select Agent Regulations. However, to ensure that you do not go above the limit, you have to keep very accurate inventories.*<br>*DEA Controlled substances have a high potential for abuse; on-hand quantities must be monitored properly to ensure that the inventory is accurate. To prevent regulatory fines and other severe consequences, researchers must ensure that inventory logs remain current.*<br><br>*Use an Excel file or lab notebook to keep an accurate inventory of these toxins or controlled substances. Make sure that these materials are under controlled access.* | ☑ | | 4 |
| | ACO01 | All lab members that work with animals and/or biological/infectious material are enrolled in the Biosafety Occupational Health Program.<br>*The Biosafety Occupational Health Program (BOHP) is a subset of the Occupational Health Program, concerned specifically with worker wellbeing and occupational exposures associated with biological materials and animals.*<br><br>*Follow the instructions available on the Biosafety Occupational Health Program Webpage.* | ☑ | | 9 |

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|---|---|---|---|---|---|
| AC | Administrative Controls | | | | |
| | ACO02 | All lab members that are required to wear respiratory protection enroll annually into the respiratory protection program.<br>*Respirators can pose safety hazards to individuals if not used appropriately.*<br>*Respirator users approved by GT EHS must be enrolled in the Respiratory Protection program and recertified annually. Please contact Lab & Chemical Safety @ lab-chemsafety@gatech.edu with any questions or concerns.* | ☑ | | 10 |
| | ACS01 | Doors leading into the lab are labeled with appropriate hazard symbols (biohazard, radiation, NFPA diamond, etc.).<br>*Health and chemical hazard signage warn individuals who do not normally work in the lab of higher level hazards that exist in the lab. These also warn first responders who may need to enter the laboratory.*<br>*Use the provided signage template to indicate appropriate hazards in the lab. Delete hazard symbols that do not apply.* | ☑ | | 5 |
| | ACS02 | The following are posted near the lab entrance:<br>• Pink Emergency Contact Card with current contact info<br>• Chemical Inventory<br>• GT Emergency Procedures Sign<br>• SDS Access Information Sign<br>*Laboratory personnel must know what to do in the event of an emergency. Emergency responders cannot dictate the appropriate response for the emergency and how to gain information about the hazards in a lab.*<br>*Locate signage on EH&S website, print, and post in designated areas which may be close to the door or near lab benches in shared spaces. See the Lab Safety Manual for additional information. Pink cards may be requested from EHS.* | ☑ | | 6 |
| | ACS03 | Lab equipment used to manipulate biological materials is labeled with the biohazard symbol.<br>*Biohazard symbols are used to communicate risk and the specific hazard to people working or visiting your lab space.*<br>*Request additional biohazard stickers from the Biosafety Office.* | ☑ | | 7 |
| | ACS04 | Lab freezers and refrigerators are labeled with "No Food or Drink Allowed", "No Flammables" (if appropriate) and the biohazard symbol (if used to store biological/infectious material).<br>*This is required to ensure that food/drink and materials are not stored together to prevent exposures. Flammable lab materials may not be stored in commercial refrigerators or freezers. Using an incorrect type is an explosion hazard.*<br>*Purchase a refrigerator designed to store flammables and volatiles. There are no electrical components located in the interior of the refrigerator and the compressor's electrical components have been sealed in a vapor-proof enclosure for additional safety. Post appropriate signage on all laboratory refrigerators and/or freezers. A No Food/No Flammables sign is available on the EHS website.* | ☑ | | 8 |
| AD | All Devices | | | | |
| | ASI01 | Are there any additional safety issues or concerns found in this laboratory not covered on the Lab Inspection Checklist? | ☐ | | 75 |
| | ASI01 | Are there any additional safety issues or concerns found in this laboratory not covered on the Lab Inspection Checklist? | | | 75 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| AD | Additional Safety Issue | | ☐ | | |
| EC | Engineering Controls | | | | |
| | ECC01 | Centrifuges have door interlocks (mechanism to keep lid closed during operation).<br>*Interlocks are important because they prevent the operator from opening the lid while contents are spinning. This prevents occupational injuries (i.e., broken or caught fingers) and releases of aerosols or spills.*<br>*Only purchase centrifuges that are fitted with interlocks. Surplus centrifuges that are broken or do not have interlocks.* | ☑ | | 21 |
| | ECC02 | Secondary containment (i.e., centrifuge safety caps, buckets, sealed rotors) is available and used when centrifuging infectious samples.<br>*Using centrifuge safety cups or sealed rotors protects the user from being exposed to infectious aerosols in case a spill occurs during the centrifuge cycle. Always load and unload safety buckets and rotors inside a BSC to insure that you are protected from any produced aerosols.*<br>*Surplus broken centrifuges or ones that do not have safety buckets.* | ☑ | | 22 |
| | ECE01 | A double ocular eyewash is available within 10 second access.<br>*Time is critical in reducing potential eye/sight damage in the event of an eye-splash.*<br>*A sink-mount or floor-mount eyewash shall be obtained and installed.* | ☑ | | 23 |
| | ECE02 | A safety shower is available within 10 second access.<br>*Time is crucial in reducing risk of adverse health effects associated with dermal exposures.*<br>*An emergency safety shower must be purchased and installed.* | ☑ | | 24 |
| | ECE03 | Eyewashes and safety showers are free of obstruction for easy access during an emergency.<br>*Life/Health-critical safety equipment cannot be blocked and must be available for immediate use in the event of an emergency where use is applicable.*<br>*Ensure unobstructed access to all applicable equipment by physical means and administrative means.* | ☑ | | 25 |
| | ECE04 | Eyewashes are tested weekly by lab members and the test is documented. NOTE: Eyewashes equipped with safety caps have them in place.<br>*Regular testing ensures it is working properly and that sediments do not accumulate in water lines that spend the majority of time being idle. Safety caps reduce likelihood of clogged pores in the eyewash heads.* | ☑ | | 26 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| EC | Engineering Controls | | | | |
| | ECE04 | *Assign personnel to test these weekly by running them = 10 seconds into a receptacle or localized drain. Document testing in some manner; either on tags or a check list.* | | | |
| | ECE05 | Safety showers are tested annually by GT Facilities and the test is documented.<br>*Annual certification verifies the proper functionality of an emergency safety shower.*<br>*Notify EHS and/or Facilities to test any safety shower that has not been checked within the last 12 months.* | ☑ | | 27 |
| | ECE06 | Fire extinguishers are appropriate for the hazards in the lab, visible and accessible in the lab.<br>*Fire extinguishers present must be appropriate to treat fires based upon materials used or equipment present in the laboratory.*<br>*Notify EHS of inappropriate fire extinguisher so the appropriate accommodations can made to obtain the most applicable fire extinguishing media.* | ☑ | | 28 |
| | ECE07 | Fire extinguishers are visually inspected monthly by lab members. This is documented on the tag affixed to the equipment.<br>*Visual inspection helps ensure that fire extinguisher will work properly if needed.*<br>*Conduct visual inspections verifying existence of pin, proper charge level (if unit has a gauge, certification within last 12 months, and general good physical condition of extinguisher) and document on the bag of the tag with initials.* | ☑ | | 29 |
| | ECH01 | Chemical Fume Hoods (CFH) have been certified in the past 6 months by the Georgia Tech approved vendor and are functioning properly. The certification label is attached to the CFH.<br>*CFHs need to be periodically certified that they are functioning at an acceptable face velocity and sashes/lights are functioning properly.*<br>*Notify EHS if fume hood has not been certified in the past 6 months so the issue may be addressed.* | ☑ | | 11 |
| | ECH02 | CFHs that have failed certification, have not been certified within the past 6 months or are not functioning correctly (i.e., flow is not between 80-120 LFM) are tagged out of service and are not in use.<br>*Fume hoods are unsafe to use out of acceptable face velocity range unless specifically authorized by GA Tech EHS.*<br>*Ensure via EHS and/or Facilities that the fume hood problem is being addressed. It them must be re-certified by EHS.* | ☑ | | 12 |
| | ECH03 | Biosafety Cabinets (BSC) have been certified in the past year by the Georgia Tech approved vendor and are functioning properly. The certification label is attached to the BSC.<br>*Annual certification ensures that the BSC is operating properly so that it can adequately protect the user, product/sample and environment.*<br>*Before you start working in your BSC, verify that the certification sticker is in place and indicates certification has occurred in the* | ☑ | | 13 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| EC | Engineering Controls | | | | |
| | ECH03 | *past year in the location where the BSC is placed. If the certification is out of date, do not use it. Contact the Biosafety Office to schedule certification.* | | | |
| | ECH04 | BSCs that have failed certification or have not been certified within the past year are tagged out of service and are not in use.<br>*Using failed or non-certified BSCs puts you at risk of laboratory acquired infections, environmental contamination of infectious diseases, and product/sample contamination.*<br>*If the certification is out of date or there is an out of service tag on the BSC, do not use it. Contact the Biosafety Office to schedule certification or repairs.* | ☑ | | 14 |
| | ECH05 | All active laminar flow hoods/clean benches have been certified within the past year by the Georgia Tech approved vendor and are functioning properly. The certification label is attached and initialed by the vendor.<br>*Laminar flow hoods/clean benches use HEPA filtered, laminar airflow to maintain a clean work space. Annual certification ensures that the equipment is properly functioning.*<br>*Before you start working in your laminar flow hood/clean bench, verify that the certification sticker is in place and indicates certification has occurred in the past year. If the certification is out of date, contact the Biosafety Office to schedule certification.* | ☑ | | 15 |
| | ECH06 | CFH and BSC sashes are functioning properly, set to appropriate heights, not cracked, and alarms are not muted.<br>*The sash helps protect the worker from splashes of hazardous material. If it is cracked or not set at the appropriate height, the worker may not be protected. A broken sash propped open with lab supplies or other support device is a hazard to individuals working in the cabinet. If the support device falls out, the sash could slam shut, injuring the person working with their hands in the cabinet.*<br>*Contact EHS to schedule repairs to broken CFH or BSC sashes. Never work in the equipment with a broken sash or with silenced alarms.* | ☑ | | 16 |
| | ECH07 | Items are not stored on top of the BSC.<br>*Items stored on top of the cabinet may fall onto and damage the BSC's HEPA filter, leading to loss of environmental protection and costly repairs.*<br>*Double check that you don't store any equipment, boxes or supplies on top your BSC.* | ☑ | | 17 |
| | ECH08 | Bunsen burners and/or open flames are not used in the BSC. Flammable gas is not used or connected to BSC gas lines (i.e., natural gas).<br>*The flame creates turbulence within the BSC which disrupts airflow inside the unit causing convection rather than intended laminar air flow patterns. Cabinets are not designed for high heat; heat that can disrupt electrical equipment within the unit itself and grossly damage the HEPA filter leading to a loss of containment. Most BSCs recirculate a percentage of air, so were the flame to go out, flammable gas would collect within the cabinet and reach explosive concentrations.* | ☑ | | 18 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| EC | Engineering Controls | | | | |
| | ECH08 | *Use an electric microincinerator or bactoincinerator instead of a Bunsen burner to sterilize metal inoculation loops and heat fix bacterial smears onto microscope slides.* | | | |
| | ECH09 | Items stored in CFHs and BSCs do not disrupt normal use and/or airflow. Specifically, BSC grills are free from obstructions.<br><br>*Overcrowding of the CFH/BSC can interfere with the airflow inside the equipment. It can also make it difficult to work inside, increasing the potential for spills, accidents, etc. When the front and/or rear grills of the BSC are blocked:*<br>• *Contaminated room air may blow across your work surface (contaminating your sample); and/or*<br>• *Contaminated cabinet air may blow towards you and contaminate the lab or expose you.*<br><br>*Plan your work before you start experiments in the CFH or BSC so you use only necessary equipment and materials to reduce overcrowding.*<br>*Avoid storing materials (broken equipment, surplus chemicals, large containers, etc.) inside the CFH/BSC where possible.* | ☑ | | 19 |
| | ECH10 | Laminar flow hoods/clean benches are not used to work with hazardous material.<br><br>*Laminar flow hoods/clean benches do not offer environmental or personnel protection.*<br><br>*Double check to make sure that the cabinet/hood you are working in is appropriate for what you plan to work with before you start.* | ☑ | | 20 |
| EL | Electrical | | | | |
| | ELS01 | Electrical panels are unobstructed (i.e., 3 ft of clearance in front of panels). | ☑ | | 61 |
| | ELS01 | Electrical panels are unobstructed (i.e., 3 ft of clearance in front of panels). | ☑ | | 61 |
| | ELS02 | Ignition sources are segregated from flammables/combustibles. | ☑ | | 62 |
| | ELS02 | Ignition sources are segregated from flammables/combustibles. | ☑ | | 62 |
| | ELS03 | Permanent equipment is plugged directly into an outlet (no extension cords). | ☑ | | 63 |
| | ELS03 | Permanent equipment is plugged directly into an outlet (no extension cords). | ☑ | | 63 |
| | ELS04 | Electrical cords are not frayed or damaged. | ☑ | | 64 |
| | ELS04 | Electrical cords are not frayed or damaged. | ☑ | | 64 |
| EP | Emergency Preparedness | | | | |
| | EPR01 | Lab is equipped with a spill kit. | ☑ | | 65 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| EP | Emergency Preparedness | | | | |
| | EPR02 | Lab members have been trained on how to clean up a minor spill. | ☑ | | 66 |
| | EPR03 | Lab members know how to report incidents and injuries. | ☑ | | 67 |
| HK | Housekeeping | | | | |
| | HKE01 | Lab sinks are equipped with soap and paper towels for handwashing. | ☑ | | 68 |
| | HKE02 | Lab floor, bench tops and furniture are easily cleanable (i.e., can be wiped down) and can handle the anticipated loads. | ☑ | | 69 |
| | HKE03 | Lab is under restricted access (i.e., doors are lockable, doors are kept closed). | ☑ | | 70 |
| | HKE04 | Food/drinks/cosmetics/lotions are not present in the lab. | ☑ | | 71 |
| | HKE05 | Work surfaces are disinfected with an appropriate disinfectant after each use and are visibly clean. Bench papers are changed on a regular basis. | ☑ | | 72 |
| | HKE06 | Work surfaces and aisle ways are uncluttered to allow space for safe work practices. | ☑ | | 73 |
| | HKE07 | Items are not stored within 18" of the ceiling to allow for safe function of building sprinkler systems. | ☑ | | 74 |
| HM | Hazardous Materials | | | | |
| | HMC01 | Chematix barcode labels are present on all primary chemical containers (including gas cylinders).<br>*The barcode labels ensure that investigators are able to track a specific container to its location. This is a regulatory compliance issue to meet the Board of Regents requirements of semi-annual reconciliation.*<br>*All chemical reagent bottles or chemicals directly purchased from a vendor must be entered into the Chematix inventory database and have a bar code label affixed. Contact Chematix@gatech.edu for information and assistance.* | ☑ | | 37 |
| | HMC01 | Chematix barcode labels are present on all primary chemical containers (including gas cylinders).<br>*The barcode labels ensure that investigators are able to track a specific container to its location. This is a regulatory compliance issue to meet the Board of Regents requirements of semi-annual reconciliation.* | ☑ | | 37 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| HM | Hazardous Materials Storage | | | | |
| | HMC01 | *All chemical reagent bottles or chemicals directly purchased from a vendor must be entered into the Chematix inventory database and have a bar code label affixed. Contact Chematix@gatech.edu for information and assistance.* | | | |
| | HMC02 | Chemicals are segregated by hazard (i.e. acids and bases separated; inorganic acids and organic acids segregated, etc).<br>*Organic acids may react violently with inorganic acids potentially resulting in dangerous fumes and fires.*<br>*Chemicals need to be separated by hazard class types (flammables, pyrophorics, organic solvents, inorganic solvents, corrosives, acids, and bases, and oxidizers, etc. separated). Contact Chematix@gatech.edu for information and assistance.* | ☑ | | 38 |
| | HMC02 | Chemicals are segregated by hazard (i.e. acids and bases separated; inorganic acids and organic acids segregated, etc).<br>*Organic acids may react violently with inorganic acids potentially resulting in dangerous fumes and fires.*<br>*Chemicals need to be separated by hazard class types (flammables, pyrophorics, organic solvents, inorganic solvents, corrosives, acids, and bases, and oxidizers, etc. separated). Contact Chematix@gatech.edu for information and assistance.* | ☑ | | 38 |
| | HMC03 | Hazardous liquids are stored no higher than shoulder height.<br>*Solutions, mixtures, and other liquid chemicals stored on high shelves increases the chances that a spill or fallen containers can occur, putting yourself or other people at risk of exposure and/or injury.*<br>*EHS requires all hazardous liquids to be stored no higher than shoulder height.* | ☑ | | 39 |
| | HMC03 | Hazardous liquids are stored no higher than shoulder height.<br>*Solutions, mixtures, and other liquid chemicals stored on high shelves increases the chances that a spill or fallen containers can occur, putting yourself or other people at risk of exposure and/or injury.*<br>*EHS requires all hazardous liquids to be stored no higher than shoulder height.* | ☑ | | 39 |
| | HMC04 | Chemical containers are in good condition (i.e., no bulging, leaking, cracked caps or crystal formation).<br>*Compromised chemical containers can fail and result in injury, accidental releases, explosions, etc.*<br>*Contact EHS for disposal of chemicals containers in poor condition. Do not attempt to move compromised containers without EHS assistance.* | ☑ | | 40 |
| | HMC04 | Chemical containers are in good condition (i.e., no bulging, leaking, cracked caps or crystal formation).<br>*Compromised chemical containers can fail and result in injury, accidental releases, explosions, etc.*<br>*Contact EHS for disposal of chemicals containers in poor condition. Do not attempt to move compromised containers without EHS assistance.* | ☑ | | 40 |
| | HMC05 | Secondary containment is present for all hazardous liquids. Note: squirt bottles and working solutions (i.e., flasks beakers, etc.) are | ☑ | | 41 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| HM | Hazardous Materials | | | | |
| | HMC05 | exempt from this requirement.<br>*In case of container failure or human error, secondary containment keeps spilled material contained until further action can be taken.*<br><br>*All hazardous liquids must be kept in some type of secondary containment.* | | | |
| | HMC05 | Secondary containment is present for all hazardous liquids. Note: squirt bottles and working solutions (i.e., flasks beakers, etc.) are exempt from this requirement.<br>*In case of container failure or human error, secondary containment keeps spilled material contained until further action can be taken.*<br><br>*All hazardous liquids must be kept in some type of secondary containment.* | ☑ | | 41 |
| | HMC06 | Lab members extract chemicals from one stock container until the container is empty.<br><br>*Multiple open containers of the same chemical is viewed as "storage in lieu of disposal" and is EPA fineable offense.*<br><br>*Exceptions to having more than one container of the same chemical open include different grades of the same chemical (difference in molarity, strength, etc.) or multiple owners of the same chemical.* | ☑ | | 42 |
| | HMC06 | Lab members extract chemicals from one stock container until the container is empty.<br><br>*Multiple open containers of the same chemical is viewed as "storage in lieu of disposal" and is EPA fineable offense.*<br><br>*Exceptions to having more than one container of the same chemical open include different grades of the same chemical (difference in molarity, strength, etc.) or multiple owners of the same chemical.* | ☑ | | 42 |
| | HMF01 | Flammables are stored in flammable safety cabinets when not in use.<br><br>*During a fire, the cabinet contains the flammable materials from contact with the flame which would accelerate the fire.*<br><br>*Read OSHA 1910.106(d)(3)(ii)(a) for specific requirements for flammable cabinets. If you have any concerns or questions contact EH&S.* | ☑ | | 43 |
| | HMF01 | Flammables are stored in flammable safety cabinets when not in use.<br><br>*During a fire, the cabinet contains the flammable materials from contact with the flame which would accelerate the fire.*<br><br>*Read OSHA 1910.106(d)(3)(ii)(a) for specific requirements for flammable cabinets. If you have any concerns or questions contact EH&S.* | ☑ | | 43 |
| | HMF02 | Flammable materials are limited to 10 gallons/100 ft2 of lab space. | ☑ | | 44 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| HM | Hazardous Materials | | | | |
| | HMF02 | *This is the maximum amount of flammable material allowed as per OSHA and NFPA.*<br><br>*Do not exceed the maximum allowable quantity.* | | | |
| | HMF02 | Flammable materials are limited to 10 gallons/100 ft2 of lab space.<br><br>*This is the maximum amount of flammable material allowed as per OSHA and NFPA.*<br><br>*Do not exceed the maximum allowable quantity.* | ☑ | | 44 |
| | HMF03 | Flammables are stored in flammable safe or explosion proof refrigerators/freezers as necessary.<br><br>*Flammable lab materials may not be stored in a commercial refrigerators or freezers. Using an incorrect type of refrigerators or freeze is an explosion hazard because the electrical components are exposed. There are no electrical components located in the interior of the refrigerator and the compressor's electrical components have been sealed in a vapor-proof enclosure for additional safety.*<br><br>*Purchase a refrigerator designed to store flammables and volatiles.* | ☑ | | 45 |
| | HMF03 | Flammables are stored in flammable safe or explosion proof refrigerators/freezers as necessary.<br><br>*Flammable lab materials may not be stored in a commercial refrigerators or freezers. Using an incorrect type of refrigerators or freeze is an explosion hazard because the electrical components are exposed. There are no electrical components located in the interior of the refrigerator and the compressor's electrical components have been sealed in a vapor-proof enclosure for additional safety.*<br><br>*Purchase a refrigerator designed to store flammables and volatiles.* | ☑ | | 45 |
| | HMG01 | Gas cylinders are secured between the middle and shoulder of cylinder.<br>NOTE: No more than two gas cylinders are secured with on restraint.<br>*Securing compressed gas cylinders in this manner follows recommended best practice for ensuring that the cylinders cannot be easily tipped or knocked over and converted to a rocket.*<br><br>*Purchase an appropriate mounting bracket with straps and install. Ensure that the bracket is installed in an appropriate location in the laboratory.* | ☑ | | 46 |
| | HMG01 | Gas cylinders are secured between the middle and shoulder of cylinder.<br>NOTE: No more than two gas cylinders are secured with on restraint.<br>*Securing compressed gas cylinders in this manner follows recommended best practice for ensuring that the cylinders cannot be easily tipped or knocked over and converted to a rocket.*<br><br>*Purchase an appropriate mounting bracket with straps and install. Ensure that the bracket is installed in an appropriate location in the laboratory.* | ☑ | | 46 |
| | HMG02 | Gas cylinders without a regulator attached have safety caps in place.<br><br>*This is an OSHA and DOT requirement in place to protect employees from serious injury in the event of a regulator failure.* | ☑ | | 47 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| HM | Hazardous Materials | | | | |
| | HMG02 | | | | |
| | | *Attach safety cap when cylinder not in use, especially when moving the cylinder.* | | | |
| | HMG02 | Gas cylinders without a regulator attached have safety caps in place. | ☑ | | 47 |
| | | *This is an OSHA and DOT requirement in place to protect employees from serious injury in the event of a regulator failure.* | | | |
| | | *Attach safety cap when cylinder not in use, especially when moving the cylinder.* | | | |
| | HMG03 | Toxic or flammable gases present in the lab are compliant with the GT Dangerous Gas Safety Program. | ☑ | | 48 |
| | | *Monitoring when applicable, of dangerous gases protects lives and property from serious harm due to accidental release of a dangerous gas.* | | | |
| | | *Follow the appropriate process when incorporating a new dangerous gas into the lab. If applicable fill out necessary EH&S documentation, review the GT Dangerous Gas Safety Program, and contact EH&S to initiate the monitoring process.* | | | |
| | HMG03 | Toxic or flammable gases present in the lab are compliant with the GT Dangerous Gas Safety Program. | ☑ | | 48 |
| | | *Monitoring when applicable, of dangerous gases protects lives and property from serious harm due to accidental release of a dangerous gas.* | | | |
| | | *Follow the appropriate process when incorporating a new dangerous gas into the lab. If applicable fill out necessary EH&S documentation, review the GT Dangerous Gas Safety Program, and contact EH&S to initiate the monitoring process.* | | | |
| | HMO01 | NFPA/Right-To-Know compliant labels are affixed to in house made containers of solutions. | ☑ | | 36 |
| | | *Labels ensure that personnel and first responders are able to determine the contents of the container.* | | | |
| | | *All secondary chemical containers, including in-house made solutions/mixtures in use for longer than 1 shift/1 day, must have RTK/NFPA hazard class information on them* | | | |
| | HMO01 | NFPA/Right-To-Know compliant labels are affixed to in house made containers of solutions. | ☑ | | 36 |
| | | *Labels ensure that personnel and first responders are able to determine the contents of the container.* | | | |
| | | *All secondary chemical containers, including in-house made solutions/mixtures in use for longer than 1 shift/1 day, must have RTK/NFPA hazard class information on them* | | | |
| PP | PPE & Lab Attire | | | | |
| | PPE01 | Lab coats are worn while working in the lab. | ☑ | | 30 |
| | | *Lab coats are the first line of defense in working in a potentially hazardous environment.* | | | |
| | | *Lab coats (made of appropriate material) are required when working in wet-bench laboratories. Flame-retardant coats are required when working with highly reactive chemicals. Purchase a new lab coat if current coat is unavailable or explore rental programs.* | | | |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| PP | PPE & Lab Attire | | | | |
| | PPE02 | Reusable coats are laundered on a regular basis by an approved method.<br>*Clean coats are more likely to be worn than dirty coats. Also, personnel should not where contaminated coats due to the risk of personnel exposure.*<br>*Please contact Chemical Safety at lab-chemsafety@gatech.edu for an approved vendor.* | ☑ | | 31 |
| | PPE03 | Safety glasses/goggles or another type of face protection are worn at all times in the lab.<br>*Eye injuries are painful and may cause permanent damage*<br>*ANSI approved safety glasses/goggles must be donned upon entry to the lab and while working in the lab.* | ☑ | | 32 |
| | PPE04 | Gloves are worn while working in the lab and appropriate for the experiment (examples: thermal protection for -80°C freezers/liquid nitrogen, nitrile gloves for chemicals, etc.) Disposable gloves are not reused.<br>*Proper glove usage reduces the risk for exposure. If disposable gloves are re-used, the risk of exposure greatly increases.*<br>*Nitrile gloves are recommended for all-purpose gloves. If you need guidance on process specific gloves, please contact Chemical Safety at lab-chemsafety@gatech.edu* | ☑ | | 33 |
| | PPE05 | Lab members remove gloves before leaving the lab and opening doors.<br>*Not removing gloves increases the risk for potential contamination on door handles.*<br>*Remove all personal protective equipment (PPE), including gloves and lab coats, when leaving areas where any hazardous materials (chemicals, biologicals, radiation, nanoparticles, etc.), which may have contaminated the PPE, are in use.* | ☑ | | 34 |
| | PPE06 | Closed toed shoes and long pants/skirts are worn at all times in the lab. Examples of inappropriate attire include: sandals, torn jeans, and ballet flats.<br>*Appropriate lab attire decrease the level of exposure and risk of injury.*<br>*Closed toed shoes, long pants, and tops that cover the torso are required in all GT laboratories. Examples of inappropriate attire include: shorts, skirts, sandals, torn jeans, leggings, ballet flats, crop tops, tank tops, etc.* | ☑ | | 35 |
| WM | Waste Management | | | | |
| | WMB01 | Animal carcasses are double bagged in biohazard bags and refrigerated/frozen until pick-up by EHS. | ☑ | | 58 |
| | WMB02 | Solid, non-sharp, biological waste is disposed of in biomedical waste boxes lined with biohazard bags (provided by EHS). These are packed for EHS pick up. | ☑ | | 59 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| WM | Waste Management | | | | |
| | WMB03 | Liquid biological waste is disinfected prior to disposal down the drain using the chemical disinfectant and contact time indicated on the lab's Biological Hygiene Plan. | ☑ | | 60 |
| | WMC01 | Chemical Waste is stored in an easily accessible location.<br>*Waste must be in the control of the generating entity at all times as a security measure and for ease of addition to the container.*<br>*Move waste to an easily accessible location that is secure. This is usually within the confines of the laboratory in an approved area.* | ☑ | | 53 |
| | WMC02 | Chemical waste is properly labeled with a description of the contents, fill start date and owner's name.<br>NOTE: Chematix waste cards are filled out and fixed to containers ready for pick up by EHS.<br>*Unidentified/unlabeled waste can cause serious safety issues involving compatibility and disposal.*<br>*Add labels, either manually or generated via the CMIS Waste Module (Chematix) with the appropriate information.* | ☑ | | 54 |
| | WMC03 | Chemical waste is stored in compatible containers (i.e., no acid in metal, no HF in glass, etc.).<br>*Incompatibility of waste and container material can cause leaks, container instability, and other serious safety issues.*<br>*Transfer waste to appropriate container. Ask for EHS assistance, if needed.* | ☑ | | 55 |
| | WMC04 | Chemical disposal containers are closed when not in use.<br>*The EPA requires all hazardous waste containers to remain closed unless a person is depositing waste into the container. This will prevent unnecessary vapors from entering the laboratory and spills.*<br>*An easy solution is to purchase a small closed head funnel for larger size waste containers. When using a bottle for waste collection ensure it is capped.* | ☑ | | 56 |
| | WMC05 | Liquid chemical waste is in secondary containment. | ☑ | | 57 |
| | WMG01 | Broken glass containers with plastic liners are available and no greater than ¾ full. Lab does not use broken glass containers for the disposal of sharps, biohazard-contaminated glass, gloves, used bulbs, etc.<br>*Inappropriate disposal poses a significant risk for exposure to those picking up trash from the labs.*<br>*Supply the lab with broken glass containers are designated for the disposal of non-contaminated broken glass and sharps containers for biohazard glass.* | ☑ | | 52 |
| | WMS01 | Unprotected sharps are not left unattended, lying out on bench tops. | ☑ | | 49 |

| LAB | Violation Code | Description | Deficiency | Point Value | Ask Order |
|---|---|---|---|---|---|
| WM | Waste Management | | | | |
| | WMS01 | *Unprotected sharps left unattended can be inadvertent hazards when working in their vicinity.*<br><br>*Place disposable sharps in sharps bins after use. Protect reusable sharps.* | | | |
| | WMS02 | Disposable sharps are properly disposed of in hard walled sharps container labeled with the principal investigator's name and containers are no greater than ¾ full.<br>*Sharps disposed inappropriately pose a significant risk for exposure to those picking up trash from the labs.*<br><br>*Sharps bins should be located within close proximity of the site of work. The sharps container must be replaced once it is 3/4ths full to prevent overfilling.* | ☑ | | 50 |
| | WMS03 | Needles are not bent, broken, recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal.<br><br>*Exposure to needles is most likely to occur during inappropriate manipulations such as recapping.*<br><br>*To prevent accidental exposure, the needle should be placed into the sharps container following use with no effort to recap or otherwise manipulate needles. Needles must not be recapped unless procedures for doing so have been approved by the Biosafety Office on the corresponding protocol.* | ☐ | | 51 |