

CSDEA	Violation Code	Description	Deficiency Y/N
CS	<b>Chemical Storage</b>		
	01	<p><b>Chemicals are stored without regard to hazard class or compatibility.</b>  <i>Chemicals must be segregated by their hazard class and compatibility. At a minimum, Flammable/Combustibles, Oxidizers, Poisons/Toxics, Acids, Bases/Alkalines, Pyrophoric and Water Reactives, and Environmentally Hazardous chemicals should have their own designated storage areas in the laboratories. Contact the Chemical Safety Office at 721-2663 if you need assistance with hazard and compatibility segregation for storage of chemicals.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3.4; GHSU Chemical Safety Guide Chapter IV; Prudent Practices in the Laboratory 4.E.1.</i></p>	Y
	02	<p><b>Bases/Alkalies are not properly segregated and not properly stored.</b>  <i>Alkalies should be in corrosive cabinets and should not be stored with acids without proper segregation. In the absence of a corrosive cabinet, strong alkalies/base chemicals should be stored in chemical resistant secondary containers.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3.3 &amp; 4; GHSU Chemical Safety Guide Chapter IV, Section F, Part 2; BOR Design Criteria for Laboratories Chap IV, G.</i></p>	Y
	03	<p><b>Acids, Organic and Inorganic not properly segregated or stored.</b>  <i>Acids should be stored in acid cabinets and segregated into organic and inorganic groups and then by compatibility. Segregation may be by different shelves within the same cabinet as long as there is secondary containment to prevent mixing of organic and inorganic acids and incompatible acids. Nitric Acid must be stored separate from all other acids.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3.4; BOR-USG Design Criteria of Laboratories Chap VI, G; GHSU Chemical Safety Guide Chapter IV, Section F; Prudent Practices in the Laboratories 4.E.1.</i></p>	Y
	04	<p><b>Toxic chemicals are not properly segregated and stored.</b>  <i>Store chemicals known to be highly toxic (including carcinogens) in unbreakable, chemically resistant secondary containers, in well ventilated areas. Toxins, carcinogens, reproductive hazards, and environmentally hazardous chemicals should be segregated from all other chemicals. Keep quantities at a minimum working level, and label storage areas with appropriate warning signs.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3.4; GHSU Chemical Safety Guide Chapter IV, Section E; Prudent Practices in the Laboratory 4.E.6.</i></p>	Y
	05	<p><b>Oxidizers, peroxide formers, and/or time sensitive chemicals are not properly segregated, labeled, and/or not properly stored.</b>  <i>Oxidizing agents should be stored separately from organics, dehydrating agents, reducing agents, or finely divided metals. Segregate oxidizers from all other chemicals and place in chemical resistant secondary containment. Some chemicals decompose into peroxides or other hazardous substances. These are either heat/pressure/shock sensitive or toxic (e.g. chloroform). Date all time sensitive chemicals according to EH&amp;S SOP 005 and dispose upon reaching the date of expiration.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3; NFPA 45-10-3.2; GHSU Chemical Safety Guide Chapter IV.D.2; Prudent Practices in the Laboratory 4.E.5</i></p>	Y

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06		<p><b>Water Reactive and pyrophoric chemicals are not properly stored.</b>  <i>Store materials that react violently with water away from possible contact with water. Water reactive chemicals should be desiccated. Pyrophoric chemicals will ignite spontaneously in air and therefore should be stored under inert conditions. Contact the Chemical Safety Office at 721-2663 for guidance in storage of Water Reactive and Pyrophoric Chemicals.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3; NFPA 45-7-2.1; GHSU Chemical Safety Guide Chapter IV, Section D.1; Prudent Practices in the Laboratory 4.E.5.</i></p>	Y
07		<p><b>Flammable/Combustible liquids exceed the regulatory storage limits for the fire area and/or are not properly stored.</b>  <i>Storage of Flammable and Combustible liquids for a Fire Area cannot exceed the following limits: Fire Hazard Class B building that is sprinklered, for Class I, II, IIIA [NFPA Flammable rating of 2, 3, and 4], cannot exceed 10 gallons outside of a flammable cabinet and not in safety cans, 20 gallons in UL approved safety cans, 360 gallons in safety cabinets, and not to exceed 400 gallons for all containers in a fire area including gas cylinders that contain flammable liquified gases. Fire Hazard Class C building that is sprinklered, for Class I, II, IIIA [NFPA Flammable rating of 2, 3, and 4], cannot exceed 4 gallons outside a flammable cabinet and not in safety cans, 8 gallons in UL approved safety cans, 360 in safety cabinets, and not to exceed 400 gallons for all containers in a fire area including gas cylinders that contain flammable liquified gases. Contact the Chemical Safety Office for assistance in maintaining regulatory compliance for storage of flammable/combustible liquids.</i></p> <p><i>Regulatory &amp; Institutional Policies and Procedures: 29 CFR 1910.106; Georgia Code 120-3-3; NFPA Chap 30-9.6.1 and Chap 45-7.2.3; GHSU Policy 4.2.01; Prudent Practices in the Laboratory 4.E.3.</i></p>	Y
08		<p><b>Flammable cabinet(s) door(s) are not kept closed with vent plugs in place.</b>  <i>Vent openings in flammable cabinets should be sealed with the bungs supplied by the manufacturer of the cabinet and cabinet doors should be closed when not in use.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA Chap 30-9.5; MCG Policy 4.2.03.6.0; GHSU Chemical Safety Guide Chapter IV Sect C.3. sect F.2; NFPA Chap 45-7.2.3.6.</i></p>	Y
09		<p><b>Flammable/Combustible liquids are stored in refrigerators that are not, Explosion Proof, Laboratory Safe, or Modified Domestic Model refrigerators, and/or refrigerators are not labeled as required under NFPA 45.</b>  <i>Flammables stored in non-explosion proof refrigerators must be stored in sealable secondary containers with desiccant or in a desiccator. Otherwise, flammables must be stored in an explosion proof refrigerator. The refrigerator in which the flammable liquids are stored must be an explosion proof, laboratory-safe or a modified domestic model, as described in NFPA 45, Fire Protection for Laboratories Using Chemicals. Flammable Liquids are never to be stored in a non-modified domestic refrigerator (see NFPA 45 &amp; NFPA 70. Explosion proof, laboratory-safe, or modified domestic model refrigerators used for storing flammable/combustible liquids are subject to the same storage quantity limits and container restrictions as Flammable Storage Cabinets (see NFPA 30). Refrigerators are to be labeled to indicate if they are "Unmodified Domestic Model," Modified Domestic or Laboratory Safe," or Explosion Proof" refrigerators as described in NFPA 45</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 30: NFPA 45-9-2.2.2: NFPA 45-12.2.2.2.1: NFPA 45-12.2.2.2.2: NFPA 45-12.2.2.2.2.1: NFPA 45-9-2.2.2: NFPA 70: GHSU Chemical Safety Guide Chapter IV, Section F.2; Good Safety Management Practice</i></p>	Y
10		<p><b>Chemicals in storage are stacked.</b>  <i>Stacking of chemicals in storage create unnecessary safety risk. Each chemical should have its own space on a shelf or in a cabinet.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 30; Prudent Practices in the Laboratory 4.E.1.</i></p>	Y

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CS	<b>Chemical Storage</b>		
11		<p><b>Integrity of chemical containers is in poor condition, not closed securely, and/or not labeled properly.</b>  <i>Chemical containers should be in good condition with labels securely attached and closed when not in use. Chemicals in manufacturer's container should be marked with PI's name, date received, date opened and expiration date if applicable. An expiration date is required for time sensitive chemicals such as peroxide formers, strong oxidizers, and picric acid. Working solutions or secondary containers should be labeled with the name of the chemical, name of the PI or preparer, and date chemical was transferred to the container</i></p> <p><i>Regulatory &amp; Institutional References: 40 CFR 262.34; GHSU Chemical Safety Guide Chapter 2, Section G(2)(a).</i></p>	Y
12		<p><b>All reagent bottles are not stored on appropriate shelves at or below eye level.</b>  <i>Reagent bottles should be stored at or below eye level of the shortest person in the lab to prevent spills onto the individual who will be accessing the containers. Shelves should be wall mounted with 1/2 inch lip to prevent spills.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-7-2.3.4; GHSU Chemical Safety Guide Chapter III.D.2; Prudent Practices in the Laboratory 4.E.1</i></p>	Y
13		<p><b>Chemical reagents and/or hazardous working solutions are kept on center aisle shelves.</b>  <i>All chemical reagents must be stored on wall mounted shelves with 1/2 inch lip. Only non-hazardous working solutions may be kept on center aisle shelves, which should also have 1/2 inch lip.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA Chap 45-7.2.3.1; BOR Design Criteria for laboratories IV, 6; GHSU Chemical Safety Guide Chapter III.D.3.</i></p>	Y
14		<p><b>Chemicals are stored near heat, ignition sources, and/or in direct sunlight</b>  <i>Keep all chemicals away from heat and ignition sources and do not store chemical in direct sunlight.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45-9-2.3.3; GHSU Chemical Safety Guide Chapter IV, Section C; Prudent Practices in the Laboratory 4.E.1.</i></p>	Y
15		<p><b>Hazardous Chemicals are stored on the floor and/or under the sink.</b>  <i>It is preferable not to store hazardous chemicals on the floor, whether you place them under a work bench or not. However, if you must store larger containers of chemicals on the floor under work benches, then those chemicals must be placed in secondary containment to prevent leaks or spills and segregated by hazard class and compatibility. Hazardous chemicals should never be stored under a sink. Only common household cleaning supplies may be stored under the sink.</i></p> <p><i>Regulatory &amp; Institutional References: GHSU Chemical Safety Guide III.D.3.</i></p>	Y

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16		<p><b>Old, outdated, expired, and/or two or more open containers of the same chemicals are present in the laboratory.</b>  <i>Old, expired, and/or two or more open containers of the same chemical will attract an EPA/EPD inspector's attention and possibly generate a regulatory citation. This is especially true for chemicals that may decompose over time to create an explosion hazard, or that are temperature sensitive, shock sensitive, pyrophoric, or water reactive. If you have chemicals that meet these descriptions, you should consider turning them in for disposal. The only exception may be unique dyes or stains that you may use only on rare occasions for special/unique procedures - for these keep the containers free of dust and make sure that the labels are kept intact and securely attached to the container. Any chemical that you are not using and do not intend to use, contact the Chemical Safety Office at 721-2663 to turn it in for exchange or disposal.</i></p> <p><i>Regulatory &amp; Institutional References: OCGA 12-8-60 Subpart 391-3-11-.07; 40 CFR 260 &amp; 261 Subpart C; GHSU Chemical Safety Guide Chapter III.D.3 and V.B.3</i></p>	Y
17		<p><b>Gas cylinders are not properly restrained, and/or not properly segregated. Cylinders without regulators are uncapped.</b>  <i>Compressed gas cylinders must be securely restrained at all times, whether empty or full, in use or not in use. Incompatible gases must be segregated and stored by their hazard class in separate areas, even when the cylinder is presumed empty. Separate the incompatible cylinders by a distance of at least 20 feet, or a five foot firewall with a fire rating of 1/2 hour. All cylinders not in use and/or not attached to a regulator must be capped. Oxidizing gases must be stored at least 20 feet from flammable gases. Contact Facilities Management at 721-2434 to request a work order for installation of gas cylinder restraints. If you have problems determining where to place your gas cylinders, contact the Chemical Safety Office at 721-2663.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45 8.1.5; GHSU Policy 4.3.02.4.0; MCG Chemical Safety Guide Chapter IV.J</i></p>	Y
18		<p><b>The number of compressed gas cylinders secured together with one restraining device exceeds the allowable limits.</b>  <i>No more than 5 compressed gas cylinders may be restrained using one restraining device or chain. You may not store spare gas cylinders in a laboratory unit, with the exception that you are allowed one spare for each single cylinder connected to a regulator to deliver gas to laboratory operation for use. The spare must be secured along side the cylinder in use. If the number of cylinders restrained exceeds the limit of 5, additional restraint systems must be installed to maintain the limit of 5 per restraining device. Contact Facilities Management at 721-2434 to have gas cylinder restraints installed as needed.</i></p> <p><i>Regulatory &amp; Institutional References: NFPA 45 8; GHSU Policy 4.3.02; GHSU Chemical Safety Guide Chapter IV.J.1.g</i></p>	Y
19		<p><b>Compressed gas cylinders are not clearly marked to identify contents.</b>  <i>All compressed gas cylinders must be clearly marked to identify their content. Cylinders that are color coded by vendors do not constitute "clearly marked." All chemical containers, including cylinders, must be labeled with the contents, hazard warnings, and manufacturer/vendor contact information.</i></p> <p><i>Regulatory &amp; Institutional References: GHSU Policy 4.3.02.4.9; GHSU Chemical Safety Guide Chapter IV.J</i></p>	Y
20		<p><b>Pressurized cryogenic container(s) relief valve(s), venting devices, and/or gauges are not appropriate or properly functional.</b>  <i>All cryogenic containers are inspected for appropriate gauges, relief valves, and venting devices to ensure that the systems do not pose a safety risk. Contact the Chemical Safety Office at 721-2663 for assistance in correcting any problems with these containers</i></p> <p><i>Regulatory &amp; Institutional References: NFPA Chap 45-8.1 and 8.2; EH&amp;S SOP Liquid Nitrogen Safety; GHSU Chemical Safety Guide Chapter IV.I.c.</i></p>	Y

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21		<p><b>Dewars are not properly labeled with contents, and/or do not have proper venting.</b>  <i>Dewars must have proper venting to avoid quick and violent pressure changes when cryofluid vaporizes. All cryogenic containers must be labeled with contents, including those used for transporting the liquids. Use only approved cryogenic apparatus for containment and/or transport of cryogenic liquids.</i></p> <p><i>Regulatory &amp; Institutional References: EH&amp;S SOP Liquid Nitrogen Safety; GHSU Chemical Safety Guide Chapter IV.J.1.a, NFPA 45, Chap 8.1.3 &amp; 8.1.4</i></p>	Y
DEA	<b>DEA Controlled Substances</b>		
22		<p><b>Controlled Substances, as defined by the Drug Enforcement Agency (DEA), are not kept under lock and key with limited access.</b>  <i>DEA Controlled Substances must be kept under lock and key when not in use to guard against theft and diversion of such materials. Access should be limited to the control of the Principal Investigator licensed to have the materials.</i></p> <p><i>Regulatory &amp; Institutional References: 21 CFR Chapter 13, 1301.71(a): Drug Abuse Prevention and Control Act</i></p>	Y
23		<p><b>A logbook detailing use, as required for all DEA Controlled Substance Act, is not provided</b>  <i>Each individual authorized to possess DEA Controlled Substances is required to maintain a logbook with detailed records and required documentation for each item under his/her control.</i></p> <p><i>Regulatory &amp; Institutional References: 21 CFR Chapter 13, 1304.23(a).</i></p>	Y
24		<p><b>Registrant has failed to maintain an Biennial Inventory as required, including DEA controlled substances.</b>  <i>Registrant shall provide an inventory at the time of registration, and shall take a new inventory of all stocks of controlled substances on hand at least every two years. The biennial inventory may be taken on any day which is within two years of the previous biennial inventory date.</i></p> <p><i>Title 21, CFR Section 1304.11(c)</i></p>	Y
NOV	<b>No Violations</b>		
NOV	<b>No Violations - No Deficiencies found.</b>		Y

11/22/2013

# Listing of Inspection Categories

Georgia Regents University

CSDEA	Violation Code	Description	Deficiency Y/N
NOV	No Violations		
OTHER	Other safety issues, not previously stated.		
	25	Other safety issues - Not previously stated.	Y

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