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Regulatory Requirement Legend		
AFC - Alberta Fire Code ABC - Alberta Building Code CBS - Canadian Biosafety Standard CEC - Canadian Electrical Code CSA - Canadian Standards Association B149.1-10 Natural gas and propane installation code	City Bylaw - City of Calgary Sewer Disposal Bylaw CNSC- Canadian Nuclear Safety Commission GNSC- General Nuclear Safety and Control Regulations NFPA ## - National Fire Protection Association - reference document	NSRD – Nuclear Substances and Radiation Devices Regulations RP- Radiation Protection Regulations OHSC- Occupational Health & Safety, Code PTNS – Packaging and Transport of Nuclear Substances Regulations

Chemical

#	General	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Is there a completed Laboratory Placard posted outside the laboratory entrance?	Print a Laboratory Placard and post outside of all laboratory entrances.	Correct immediately	AFC 5.5.3.1.5) AFC 3.2.7.13 AFC 3.2.7.17	-The laboratory shall be clearly designated as an area containing dangerous goods -Storage areas used for the storage of dangerous goods shall be clearly designated as such by posted placards - An area used for the storage of dangerous goods shall be secured against unauthorized access
B	Required placards and warning signs are posted outside the laboratory entrance? Radioisotope (e.g. laser, NMR, X-ray, etc.),	Contact Radiation Safety Officer for any Laser, X-ray or Radioisotope signage. Contact Biosafety Officer for any required Biosafety signage.	Correct immediately	AFC 2.8. CNSC CBS 3.3.2	- Fire safety plan in general talks about special hazards present above chemicals specifically radioactive materials and other hazards. -Every licensee shall post and keep posted, at the boundary of and at every point of access to an area, room or enclosure, a durable and legible sign that bears the radiation warning symbol

	Biosafety restricted access				-Biohazard warning signage (including the international biohazard warning symbol, containment level, name and telephone number[s]of contact person, and entry requirements) to be posted at the containment zone point(s) of entry.
c	All entrances, exits and aisles are free from materials, equipment, accumulation of waste and other obstructions?	Maintain aisle widths in the lab.	Correct immediately	AFC 2.7.1.6. OHSC Part 8, 119 (3) CBS 4.6.35	- Means of entry and exit must be kept clear of materials, equipment, waste, and other obstructions. - An employer must ensure that a work area's entrances and exits are free from materials, equipment, accumulations of waste or other obstructions that might endanger workers or restrict their movement. - Containment zone (including floors) to be kept clean, free from obstructions, and free from materials that are in excess, not required, or that cannot be easily decontaminated.
D	Laboratory doors are kept closed?	Close lab doors	Correct immediately	AFC 5.5.2.2. CBS 4.5.1	- A laboratory shall be separated from other parts of the building by a fire separation. A door is considered part of the fire separation. - Containment zone doors and animal room/cubicle doors to be kept closed.
E	Doors, frames, casework, benchtops and laboratory furniture are non-absorbent and are cleanable?	Purchase non-absorbent furniture	Correct in consultation with Faculty/ Facilities	AFC 5.5.2.1.1)	1) Interior finish materials, floors, fixed furniture and equipment shall be chemically resistant to dangerous goods being used in a laboratory to minimize their deterioration, in conformance with Articles 3.2.7.7. and 3.2.7.8
F	Surfaces and interior coatings are cleanable and resistant to damage, in accordance with function?	Paint, repair, or replace damaged surfaces	Correct in consultation with Faculty/ Facilities	CBS 3.4.1	Wood surfaces are permitted in CL2 laboratory work areas if sealed to be non-absorbent. CBH 22.5.4
G	Laboratory / containment zone has a phone?	Submit Archibus request to install phone	Correct in consultation with Faculty/	CBS 3.7.18	A communication system to be provided between the laboratory work areas / animal rooms / cubicles / large

			Facilities	OHSC Part 28, 394	scale production areas and outside the containment zone. i.e. phone or other communication system Ensure that all laboratory personnel have access to a phone, can be in main lab or another lab.
H	Emergency eyewash and /or emergency shower is unobstructed?	Remove items from the area	Correct immediately	OHSC Part 4, 24 CBS 3.6.6	Emergency baths, showers, eye wash stations and similar equipment should be (a) located on the same floor level and area as the work process that creates the hazard, (b) unobstructed at all times for quick access, and (c) marked with clear signage to indicate their location.
I	Fire extinguisher is accessible?	Remove obstruction away from the fire extinguisher	Correct immediately	AFC 2.1.5.1.2)	Do not place any items in front of or on the fire extinguisher
J	Fire extinguisher is located in the laboratory and has been inspected monthly?	Submit Archibus work request to have fire extinguisher inspected. Include equipment barcode.	Correct in coordination with Faculty/ Facilities	AFC 6.2.1.1.1)	Portable extinguishers shall be inspected, tested and maintained in conformance with NFPA 10, "Potable Fire Extinguishers."
K	Fire sprinkler heads are not blocked by materials?	Remove obstruction to maintain an 18 inch / 45 cm vertical clearance below fire sprinkler heads.	Correct immediately	AFC 2.1.3.6.1) Appendix A NFPA 13, 8.5.5.2.1	18 inch / 45 centimeter space is required from below the ceiling from wall to wall. Items placed against a wall still need to be more than 18 inch below the ceiling
L	Nothing is attached to fire sprinkler lines or sprinkler heads?	Remove object that is attached to fire sprinkler lines or sprinkler heads.	Correct immediately	AFC 2.1.3.6.1) Appendix A NFPA 13, 8.5.5.2.1	Nothing is attached to the actual sprinkler line or anything that would interfere with the correct operation of the sprinkler head.
M	Master natural gas shut off valve is accessible? (Lab)	Remove obstruction away from natural gas shut off valve.	Correct immediately	CSA B149.1-10 (6.18.10)	When multiple outlets are installed in a classroom, laboratory, or similar facility, they shall be controlled by a clearly identified master shut-off <i>valve</i> in a <i>readily accessible</i> location within that room.
N	Master natural gas shut off valve is identified? (Facilities)	EHS to submit Archibus to Facilities	EHS to request from Facilities	CSA B149.1-10 (6.18.10)	When multiple outlets are installed in a classroom, laboratory, or similar facility, they shall be controlled by a clearly identified master shut-off <i>valve</i> in a <i>readily accessible</i> location within that room.
O	First aid kit is identified?	Mount first aid kit on wall or label drawer containing first aid kit.	Correct in consultation with Faculty/	OHSC Part 11, 179	First aid services, equipment and supplies must be quickly and easily accessible during all working hours.

			Facilities		
P	First aid kit is accessible?	Place within reach of all lab personnel	Correct immediately	OHSC Part 11, 179	The equipment and supplies, or more often the containers in which they are stored, must be clearly marked to indicate that they are intended for first aid.
Q	First aid kit is fully stocked?	Stock the first aid kit with supplies that are in usable condition and not expired.	Correct immediately	OHSC Part 11, 178(1)	UofC laboratories have various hazards and are considered medium hazard and a #2 first aid kit covers all of the hazards.
R	A spill kit is identified, accessible and stocked appropriately for the types of hazardous materials used in the laboratory?	Purchase a spill kit from supplier. Supplier information can be found in Laboratory Safety Manual Spill Response Procedures or in the link below https://www.ucalgary.ca/safety/spill_kits	Correct in consultation with Faculty/Facilities	AFC 5.5.3.3	Absorbent and neutralizing materials shall be provided in the laboratory and in the dangerous goods storage areas in conformance with Sentence 3.2.7.11.(2).....Materials or liquids used in the cleanup of spills and leakages or dangerous goods shall be a) compatible and non-reactive with the dangerous goods being cleaned up.

#	Hygiene & Housekeeping	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Hand washing sink /hand soap/ paper towels are available near entrance?	Remove obstruction away from sink. Provide hand soap and paper towels.	Correct in consultation with Faculty/Facilities	OHSC Part 4, 23(a) CBS 3.6.4	- If a worker may be contaminated by a harmful substance at a work site, the employer must (a) provide the facilities, including showers, the worker needs to remove the contamination before the worker leaves the work site, - Sinks to be provided and located to facilitate handwashing upon exit from the containment zone.
B	Are personal clothing stored separately from dedicated PPE?	Remove PPE from the administrative areas. Store PPE separately from personal clothing.	Correct immediately	OHSC Part 4, 23	Workers, their clothing, and equipment may become contaminated during work activities through exposure to harmful substances including chemical or biological hazards.
C	Are personal belongings kept separate from areas where chemicals are handled or stored?	Remove personal belongings from areas where hazards are handled or stored. Personal belongings can be stored in the lab administrative areas.	Correct immediately	OHSC Part 4, 23	Workers, their clothing, and equipment may become contaminated during work activities through exposure to harmful substances including chemical or biological hazards.
D	No evidence of food in the laboratory?	Remove food or drinks and eating utensils from laboratories or areas	Correct immediately	OHSC Part 4, 25(2)	- A worker must not eat, drink or smoke tobacco in a part of a work site contaminated by a harmful substance. - Do not eat, drink, store food or smoke in the laboratory.

		where eating and drinking is prohibited.		CNSC - Lab rules CBS 4.6.1	- UofC lab rules (Chemical, Biohazard and Radioactive)
E	Refrigerators in laboratory are not used to store food or drinks?	Label food items for animals as "Animal treats" OR "For animal use ONLY".	Correct immediately	OHSC Part 4 25(2)	- Workers must not eat, drink or smoke tobacco in a part of a work site contaminated by a harmful substance.
F	Surfaces are free of accumulations of dirt, dust and debris?	Keep lab clean, free from obstructions, and free from materials that are in excess, not required, or that cannot be easily decontaminated.	Correct immediately	AFC 3.2.7.4 1) CBS 4.6.35	- Areas where dangerous goods are stored shall be kept free of waste packaging materials, debris of any kind, or any spilled product. - Containment zone (including floors) to be kept clean, free from obstructions, and free from materials that are in excess, not required, or that cannot be easily decontaminated.

#	PPE	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Eye and face protection is available and matched to the hazards involved?	Provide and enforce use of safety glasses, goggles or face shields.	Correct immediately	OHSC Part 18, 229(1)	- If a worker's eyes may be injured or irritated at a work site, an employer must ensure that the worker wears properly fitting eye protection equipment
B	Protective gloves are available and matched to hazards involved?	Provide and enforce use of protective gloves.	Correct immediately	OHSC Part 18, 242	- Worker wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified.
C	Lab coats or other appropriate protective clothing are available and matched to the hazards involved?	Provide and enforce use of lab coats or protective clothing.	Correct immediately	OHSC Part 18, 242	- Worker wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified
D	Lab coats are not used or stored outside of the laboratory	Provide and enforce use of lab coats or protective clothing.	Correct immediately	OHSC Part 4, 23(b)	- Ensure that only those articles and clothing that have been properly decontaminated or cleaned are taken from the work site by the worker
E	Hearing protection is available and matches to the hazards involved?	Provide and enforce use of hearing protection.	Correct immediately	OHSC Part 16, 222 (3)	- Workers who are provided with hearing protection equipment must wear and use the equipment in accordance with the training provided by the employer.

					Hearing protection required to meet Canadian Standards Association (CSA) standards. CSA Class is indicated on the product and/or packaging. Lab should keep the packaging to indicate the CSA rating.
F	If respirators are present are they stored properly within the lab?	Store respirator in a bag that is sealable	Correct immediately	OHSC Part 18 248(1)	-Respiratory protective equipment kept ready to protect a worker is (a) stored in a readily accessible location, (b) stored in a manner that prevents its contamination, (c) maintained in a clean and sanitary condition, (d) inspected before and after each use to ensure it is in satisfactory working condition, and (e) serviced and used in accordance with the manufacturer’s specifications.

#	Electrical	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Electrical breaker panels are free from obstruction?	Remove obstruction away from the electrical panel	Correct immediately	CEC 2-308	No equipment, supplies, etc. within 1 meter of the front of the panel. The width of the panel – must allow for the door to open to at least 90 degrees
B	Electrical cords are in good condition?	Repair/Replace damage cords	Correct immediately	CEC 4-012	Frayed and damaged flexible cords are removed from service.
C	Extension cords are for temporary (<24h) use only?	Unplug extension cord after temporary use; Or submit Archibus request to install outlet	Correct immediately	CEC 4-012	If an electrical appliance needs to be plugged in 24 hours a day continuously, then the appliance must not be on an extension cord, the appliance cord needs to be plugged directly into an electrical receptacle (in wall or electrical wire mold strip).
D	Electrical cords do not run through opening in walls, ceilings, or floors, doorways or windows?	Remove electrical cords from openings in walls, ceilings, or floors, doorways or windows.	Correct immediately	CEC 4-012	Flexible cords (extension cords or appliance cords) must not be substituted from fixed wiring or run through a fire barrier or opening (doors, windows, fire dampers, etc.) in a fire barrier
E	Lab equipment is CSA approved or certified for use in Canada?	Inspect the lab equipment using an accredited body. Information on accredited inspection bodies can be found in this link: http://www.scc.ca/en/accreditation/inspection-bodies/directory-of-accredited-clients	Correct immediately	CEC 2-024(1)	CEC requires that electrical equipment be approved. The CEC defines “approved” in Section 0. <i>From Alberta Municipal Affairs Electrical Standata Use of Approved Equipment.</i> The Electrical Code Regulation, otherwise defines the term approved, as suggested in the definitions of the CEC.

F	Is GFCI used in wet areas?	EHS to submit Archibus to Facilities to install a GFCI plug or GFCI breaker on the circuit.	EHS to request from Facilities	CEC-26-700(11)	Receptacles installed in areas that are not separated from a wet areas by a door, should be protected by a Ground Fault Circuit Interrupter (GFCI) of the Class A type if they are within 1.5m of a wet areas.
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#	Chemical Storage & labelling	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Are the hazardous materials (chemicals or hazardous products) inventoried in Chematix?	Enter chemical inventory into Chematix and place barcode on containers.	Correct immediately	AFC 3.2.7. (flam) AFC 2.8.2.2)	- 3.2.7 flammable limits for a lab/ fire compartment - 2.8.2.2) is the annual update to the fire safety plan (information about the hazards in the lab) to ensure fire fighters know what they are responding to.
B	Are hazardous materials containers appropriately labelled with supplier or workplace labels?	Write product identifier (chemical name) onto container for workplace label.	Correct immediately	OHSC Part 29, 398	This part covers all the labelling of controlled products. When and how to label.
C	Are containers of hazardous materials properly sealed?	Use original product lids and containers. If they are not available, transfer to another container with appropriate lid.	Correct immediately	AFC 4.1.8.1.	Containers and Storage tanks for flammable liquids and combustible liquids shall be kept closed when not in use.
D	Are hazardous materials stored at least 100mm above the floor?	Remove all hazardous materials from the floor. Exception to this requirement is gas cylinders and waste containers in spill trays.	Correct immediately	AFC 3.2.7.5.4)	Stored dangerous goods shall be kept not less than 100mm above the level of the floor
E	Hazardous materials storage areas are properly labelled? (including fridges that are used for storage)	Label all hazardous materials storage areas with the appropriate label e.g. Acid cabinets/ Flammable cabinets/ Oxidizers/ Highly Toxic/ Flammable Solid/ Corrosive	Correct immediately	AFC 4.2.10.4 AFC 3.1.2.5.5)	-For flammable liquids - Cabinets for container storage shall be labelled in conspicuous lettering to indicate that the cabinet contains flammable materials and that open flames must be kept away. -Every building or part of a building that is used for the storage or use of any substance that reacts violently with water shall be plainly and conspicuously marked on the outside with the signage legible from 6 m using the words "REACTIVE SUBSTANCES, USE NO WATER."
F	Hazardous materials are stored and segregated by compatibility class?	Correct storage e.g. Acids are stored separately from bases; flammables are stored separately from oxidizers	Correct immediately	AFC 3.2.7.6. AFC 3.2.7.7.	Dangerous goods shall be separated from other dangerous goods in conformance with Table 3.2.7.6. Segregation table.

G	Are corrosive chemical storage areas / cabinets used correctly?	Store corrosive chemicals in a commercially available corrosive cabinet	Correct immediately	Best practice	-Minimizes the potential fire hazard and interaction with corrosive and organic matter. - Corrosives stored in regular cabinets will corrode hinges and other metal surfaces.
H	Are corrosives stored in a secondary container?	Store corrosive chemicals in a polypropylene bin, a spill tray or a rubber bottle carrier	Correct immediately	Best practice	Minimizes the potential for leaks and breakage from interacting with other materials in the storage cabinet.
I	Only cleaning products are stored under sinks?	Remove hazardous materials under a sink.	Correct immediately	AFC 3.1.2.1.2)	Dangerous goods shall be stored according to the hazards they present based upon their properties
J	Piping (tubing), valves, and fittings on experimental equipment are in good condition?	Repair/Replace piping (tubing), valves, and fittings on experimental equipment. Recommend that all piping & tubing be labelled with the contents (i.e. water line, vacuum line, transfer line, waste line, etc.)	Correct immediately	AFC 3.2.7.7.1	Measures shall be taken to prevent or minimize corrosion or deterioration of shelving, racks, and piping system components, due to contact with stored dangerous goods
K	Quantity in each flammable storage cabinet is below the rated capacity?	Purchase additional flammable cabinet	Correct in consultation with Faculty/Facilities	AFC 4.2.10.2.	The maximum quantity of flammable liquids and combustible liquids stored in a cabinet shall be 500 L, of which not more than 250 L shall be Class I liquids.
L	Flammable storage cabinet venting is code compliant?	Submit Archibus request to remove venting or provide equivalent level of protection as the cabinet e.g. steel pipe of equivalent thickness.	Correct in consultation with Faculty/Facilities	AFC 4.2.10.6	1) When a storage cabinet required in this Part is provided with ventilation openings, a) the ventilation openings shall be sealed with materials providing a fire protection at least equivalent to that required for the construction of the cabinet, or b) the cabinet shall be vented outdoors using vent piping providing a fire protection at least equivalent to that required in Clause (a) for seals.
M	Are all storage containers of flammable liquid with a capacity greater than 5 Liters in an approved safety container?	Decant from container (e.g. 20 Litre shipping) into an approved 5 Litre safety container.	Correct immediately	AFC 4.2.6.4	Where individual containers with a capacity of more than 5 Liters are required for storage of flammable liquids in a building, safety containers conforming to ULC/ORD-C30, "Safety Containers," and of not more than 25 Liters capacity, shall be used.
N	Flammable storage cabinet meets ULC/ORD-C1275?	Remove flammables from inappropriate storage cabinet to approved flammable storage cabinet.	Correct immediately	AFC 4.2.10.5	ULC/ORD-C1275, Storage Cabinets for Flammable Liquid Containers

O	Refrigerators used for the storage of flammable materials are flammable safe or the materials are stored properly?	Purchase flammable safe refrigerator or store less than 500 ml of flammables in a secondary container	Correct immediately	AFC 4.1.4.1.2)	Where refrigerators are used to store Class I liquids, they shall be designated so that a) electrical equipment located within the storage compartment, within the outer shell, on the door and on the door frame of the refrigerator conforms to electrical regulations made pursuant to the Safety Codes Act for Class I, Zone 0 or 1 hazardous locations based on the frequency of occurrence and duration of an explosive gaseous atmosphere, and b) electrical equipment mounted on the outside surface of the refrigerator i) conforms to electrical regulations made pursuant to the Safety Codes Act for Class I, Zone 2 hazardous locations, or ii) is located above the top of the storage compartment.
P	Vacuum systems are equipped with a mechanism to prevent internal contamination of system?	Provide secondary trap for mercury or other solvents	Correct immediately	Best practice	To protect vacuum system from chemical degradation and to prevent inappropriate chemical release to the environment.
Q	A secondary means of containment is available for the movement of chemicals outside of the laboratory?	Use bottle carrier or purchase a cart with an integrated spill tray or use a cart with a spill tray added	Correct immediately	Various	U of C Lab safety manual - Movement of hazardous materials within Buildings - Sealed containers All other containers such as autoclave or other bags which may contain hazardous materials must be transported on a cart and contained in a plastic tray to capture any leakage.

#	Fume hoods	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Hazardous processes producing volatile or noxious fumes are performed using local exhaust ventilation?	Conduct all hazardous processes that involve volatile or noxious fumes using local exhaust ventilation.	Correct immediately	AFC 5.5.4.2.	A room or enclosed space referred to in Article 4.1.7.1. shall be provided with one of the following ventilation systems:
B	Solvents are not evaporated in the fume hood as a means of disposal?	Close waste containers and dispose appropriately. Acceptable practices include: Thin Layer Chromatography Plates evaporation of solvent, Filtered materials drying.	Correct immediately	AFC 5.5.5.2.	Fume hood is for controlling/preventing the escape of flammable vapours into the workspace.
C	All electrical connections (plugs male and female	Remove power bars from the inside of the fume hood.	Correct immediately	AFC 5.5.3.4.2)	The inside the fume hood is considered a flammable or potentially explosive environment.

	socket ends) are located outside of the fume hood?				<p>1) Except as provided in Sentence 5.5.3.5.(3), electrical equipment located in areas where the concentration of flammable vapours is sufficient to create a hazard shall conform to electrical regulations made pursuant to the Safety Codes Act for Class I, Division 1, for the hazardous locations.</p> <p>2) Electrical equipment located inside a power-ventilated enclosure required in Article 5.5.4.2. and its exhaust system shall a) conform to Sentence (1), and b) be designed and maintained to prevent the accumulation of combustible or reactive deposits.</p>
D	Is there a visual and/or audible alarm to indicate loss of airflow in the fume hood?	Submit Archibus request to repair/replace. Include equipment barcode.	Correct immediately	OHSC Part 26, 388	-An employer must ensure that provision is made to warn workers immediately if a ventilation system fails.
E	Is there a sash height indicator on the fume hood indicating safe operating height of the fume hood?	Submit Archibus request to identify safe operating height. Include equipment barcode.	Correct immediately	29.5 3.1.1.1	<i>The sash is to be used at the height that the exhaust system was designed (reference UofC design standards for VAV and CAV operation).</i>
F	Fume hood airflow is not compromised by the location of equipment or chemicals within the fume hood?	Keep clear the slots at the back and sides Do not block the apron airfoil at the front. Elevate equipment 1 inch off the surface to allow for air flow underneath.	Correct immediately	AFC 5.5.4.2.2)	A power-ventilated enclosure required in Sentence (1) shall not be used for the storage of dangerous goods, and any quantity in excess of the supply necessary for normal operation shall conform to Subsection 5.5.5.
G	Inspection and maintenance are done annually on fume hoods and other ventilations in a lab?	Submit Archibus request to have inspection and maintenance done. Include equipment barcode.	Correct immediately	AFC 5.5.3.6.2)a) OHSC Part 26, 387(1)(a)	<p>The ventilation systems serving a laboratory shall be inspected and cleaned to prevent the accumulation of combustible or reactive deposits, and the intervals between inspections shall be not greater than 12 months for the ventilation systems of the laboratory and dangerous goods storage areas.</p> <p>An employer must ensure that a ventilation system is designed, installed and maintained in accordance with established engineering principles.</p>

#	Compressed Gas Cylinders	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory reference wording
A	Compressed gas cylinders are secured at least 1 meter from laboratory exits?	Relocate all gas cylinders except for fire extinguishers at least 1 meter from laboratory exits.	Correct immediately	AFC 3.1.2.4.4)c)	Except for fire extinguishers, cylinders of Class 2 gases shall not be stored within 1 m of any exit.
B	Compressed gas cylinders are secured properly?	Submit Archibus request to install restraint device (e.g. chain or strap) between ¾ and ½ height of cylinder, securing cylinder to an immovable object/wall/bench or purchase a gas cylinder floor stand.	Correct immediately	AFC 3.1.2.4.2	Cylinders of Class 2 gases that are in storage shall be b) firmly secured in a position that will not interfere with the operation of the cylinder valve assembly.
C	All cylinder lines, piping and manifolds have a shut-off valve installed at each connection point of use?	Label each connection point and install a manual shut-off.	Correct immediately	AFC 5.5.5.3.2)	-Each point of supply and each point of use cylinders or piping systems for TDG Class 2 Compressed gases shall be provided with a) labels identifying the gas supplied, and b) a manual shut-off valve. If a gas cylinder/regulator is directly connected to one piece of equipment NO extra valve is required (cylinder valve counts as a valve). If the gas cylinder is connected to multiply lines/connections or a manifold each point needs a shut off valve.
D	Compressed gas cylinder valve caps are in place when the gas cylinders are not in use?	Place compressed gas cylinder valve caps onto the compressed gas cylinder when it is not in use.	Correct immediately	AFC 3.1.2.4.2	Cylinders of Class 2 gases that are in storage shall be a) protected against valve damage.
E	Compressed gas cylinders are properly marked as to their contents with an intact and legible label?	Create legible labels for compressed gas cylinders or report to supplier.	Correct immediately	AFC 3.1.2.1.1)	Classes and divisions of dangerous goods referred to in this Code shall mean their primary and first subsidiary classification
F	Valves, cylinder lines, piping and manifolds and all connection points are labelled with identity of contents?	Label them with identity of contents, e.g. N ₂ , O ₂ , Methane, Ar, He, Air.	Correct immediately	AFC 5.5.5.3.2)	Each point of supply and each point of use cylinders or piping systems for TDG Class 2 Compressed gases shall be provided with a) labels identifying the gas supplied, and b) a manual shut-off valve.

G	Gas cylinder carts with chains/straps are available?	Obtain appropriate gas cylinder cart.	Correct immediately	AFC 3.1.2.4.(3)	Cylinders of Class 2 gases shall be transported in devices designed to provide restraint against movement in any direction
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#	Sharps	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Safety-engineered medical sharps are provided, when required?	Purchase safety-engineered medical sharp.	Correct immediately	OHSC Part 35, 525.2(2)	An employer must provide and ensure that any medical sharp is a safety engineered medical sharp.
B	Waste needles are not re-capped?	Remind all personnel not to recap needles prior to disposal.	Correct immediately	OHSC Part 35, 527	A person must not recap waste needles.
C	Sharps (surfaces of razor blades, scalpels, needles) are not left exposed or unprotected?	Provide a method where sharp surfaces are not exposed or unprotected e.g. place sharp in foam block	Correct immediately	OHSC Part 2, 7(1) OHSC Part 2, 9(1)	The employer must assess a work site and identify existing and potential hazards before work begins at the work site. Potential hazards are those that are foreseeable and reasonably likely to occur. The employer should be able to describe which hazards identified by the hazard assessment have been eliminated or controlled.

#	Waste Disposal	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Are wastes disposed of appropriately?	Follow Hazardous Waste Disposal Guidelines in Laboratory Safety Manual	Correct immediately	City Bylaw	- Bylaw 20M2001 no hazardous wastes into regular garbage - 14 M 2012 must not be <i>released</i> into the <i>wastewater system</i> long list of various products into the sewer system.
B	Hazardous wastes are properly segregated and contents identified?	Segregate and identify contents of waste.	Correct immediately	OHSC Part 29, 396 AFC 5.5.5.6.1)	- While hazardous wastes are exempt from WHMIS, the employer is still required to ensure that they are safely stored and handled at the work site and that workers are appropriately trained. However, the employer may use discretion in selecting the method of storage and training, as long as workers are adequately protected. The key is to use a system that is appropriate to the workplace and that is understood and followed by workers. Acceptable methods of identifying the waste include placards, coded labels or work site labels as long as they clearly identify the contents of the product containers.

					1) Wastes from dangerous goods shall be a) identified to prevent accidental mixing of incompatible chemicals,
C	Are chemical waste & biomedical waste containers kept closed/covered when not in use?	Close/cover container at all times	Correct immediately	AFC. 4.1.8.1.2) CBS 4.8.8	- Containers and Storage tanks for flammable liquids and combustible liquids shall be kept closed when not in use. - Contaminated equipment, materials, and waste to be placed in closed, labelled, and leakproof containers that have been surface decontaminated prior to removal from lab areas.
D	Minimal waste quantities in the lab?	Submit Chematix request for hazardous waste disposal.	Correct immediately	AFC 5.5.5.1. AFC 5.5.5.6.	- The quantity of dangerous goods kept in a laboratory shall be minimized and shall not exceed the lesser of the quantities listed in UofC fire safety bulletin. - Wastes from dangerous goods shall be b) included in the quantities specified in Article 5.5.5.1.

#	Cryogenic liquids & Carbon Dioxide	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Are cryogenic liquids and carbon dioxide stored in a properly ventilated area?	Store cryogenic liquids and carbon dioxide in a properly ventilated area. Definition of a properly ventilated area is supplemental ventilation in the area not just building return air grills (i.e. a fume hood, an exhaust duct by the discharge point, a snorkel.)	Correct immediately	OHSC Part 4, 27 (b) NFPA 55 OHSC Part 26, 386(e)	- Is used and stored in such a way that the use or storage is not a hazard to workers. Asphyxiant gas hazard Schedule 1, Table 2 - Continuous mechanical ventilation designed and maintained to remove dangerous goods fumes and vapours. Oxygen detection system may be required - Mechanical ventilation system controls worker exposure to an atmosphere that has less than 19.5 percent or more than 23 percent by volume of oxygen.
B	Are cryogenic liquids and carbon dioxide used in properly ventilated area?	Use cryogenic liquids and carbon dioxide in a properly ventilated area. Definition of a properly ventilated area is supplemental ventilation in the area not just building return air grills (i.e. a fume hood, an exhaust duct by the discharge point, a snorkel.)	Correct immediately	OHSC Part 4, 27 (b) NFPA 55 OHSC Part 26, 386(e)	- Is used and stored in such a way that the use or storage is not a hazard to workers. Asphyxiant gas hazard Schedule 1, Table 2 - Continuous mechanical ventilation designed and maintained to remove dangerous goods fumes and vapours. Oxygen detection system may be required - This Part applies to work sites if a mechanical ventilation system controls worker exposure to e) an atmosphere that has less than 19.5 percent or more than 23 percent by volume of oxygen
C	Are appropriate PPE available for handling	Purchase face shield, loose fitting thermal insulated or	Correct immediately	OHSC Part 18, 228	- If the hazard assessment required by section 7 of the OHS Code indicates that PPE is required, the employer must ensure that workers wear and use the required PPE

	cryogenic liquids and carbon dioxide?	leather gloves, lab coats, appropriate footwear			properly. Ensuring that workers have and wear their PPE is not enough. The employer must ensure that the PPE is used properly.
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#	Cold Rooms & Environmental Chambers	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Do these rooms have a failsafe exiting device or handle?	Submit Archibus request to repair device or handle.	Correct immediately	OHSC Part 2, 7(1) Part 2, 9(1)	- The employer must assess a work site and identify existing and potential hazards before work begins at the work site. Potential hazards are those that are foreseeable and reasonably likely to occur. - The employer should be able to describe which hazards identified by the hazard assessment have been eliminated or controlled.
B	Gas cylinders are not stored within the environmental chamber or cold room?	Remove gas cylinders from an environmental chamber or cold room	Correct immediately	AFC 5.5.4.1	- Continuous mechanical ventilation designed and maintained to remove dangerous goods fumes and vapours.

Biosafety

#	Biosafety General	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Is there a completed Laboratory Placard posted outside the laboratory entrance?	Print a Laboratory Placard and post outside of all laboratory entrances.	Correct immediately	AFC 5.5.3.1.5) AFC 3.2.7.13 AFC 3.2.7.17	-The laboratory shall be clearly designated as an area containing dangerous goods -Storage areas used for the storage of dangerous goods shall be clearly designated as such by posted placards - An area used for the storage of dangerous goods shall be secured against unauthorized access
B	All entrances, exits and aisles are free from materials, equipment, accumulation of waste and other obstructions?	Maintain aisle widths in the lab.	Correct immediately	AFC 2.7.1.6. OHSC Part 8, 119 (3) CBS 4.6.35	- Means of entry and exit must be kept clear of materials, equipment, waste, and other obstructions. - An employer must ensure that a work area's entrances and exits are free from materials, equipment, accumulations of waste or other obstructions that might endanger workers or restrict their movement. - Containment zone (including floors) to be kept clean, free from obstructions, and free from materials that are in excess, not required, or that cannot be easily decontaminated.
C	Laboratory doors are kept closed?	Close lab doors	Correct immediately	AFC 5.5.2.2. CBS 4.5.1	- A laboratory shall be separated from other parts of the building by a fire separation. A door is considered part of the fire separation. - Containment zone doors and animal room/cubicle doors to be kept closed.
D	Doors, frames, casework, benchtops and laboratory furniture - non-absorbent materials and are cleanable?	Purchase non-absorbent furniture	Correct in consultation with Faculty/ Facilities	AFC 5.5.2.1.1)	1) Interior finish materials, floors, fixed furniture and equipment shall be chemically resistant to dangerous goods being used in a laboratory to minimize their deterioration, in conformance with Articles 3.2.7.7. and 3.2.7.8
E	Surfaces and interior coatings are cleanable and resistant to damage, in accordance with function?	Paint, repair, or replace damaged surfaces	Correct in consultation with Faculty/ Facilities	CBS 3.4.1	- Wood surfaces are permitted in CL2 laboratory work areas if sealed to be non-absorbent. CBH 22.5.4
F	Laboratory / containment zone has a phone?	Submit Archibus request to install phone	Correct in consultation	CBS 3.7.18	A communication system to be provided between the laboratory work areas / animal rooms / cubicles / large scale production

			with Faculty/ Facilities	OHSC Part 28, 394	areas and outside the containment zone. i.e. phone or other communication system Ensure that all laboratory personnel have access to a phone, can be in main lab or another lab.
G	Emergency eyewash and or emergency shower is unobstructed?	Remove items from the area	Correct immediately	OHSC Part 4, 24 CBS 3.6.6	Emergency baths, showers, eye wash stations and similar equipment should be (a) located on the same floor level and area as the work process that creates the hazard, (b) unobstructed at all times for quick access , and (c) marked with clear signage to indicate their location.
H	Vacuum systems are equipped with a mechanism to prevent internal contamination?	Install an in-line HEPA filter.	Correct immediately	CBS 3.7.17	- Vacuum systems are used to aspirate liquid from a tube or to create a void in filtration units (e.g., centralized vacuum system). Vacuum pumps may cause aerosolization of infectious material or toxins and lead to contamination of vacuum lines and pumps. A device such as a HEPA filter, a small in-line filter (e.g., 0.2 µm filter), or a disinfectant trap can be used to protect vacuum systems from internal contamination with infectious material or toxins.

#	Hygiene & PPE	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Hand washing sink /hand soap/ paper towels are available near entrance?	Remove obstruction away from sink. Provide hand soap and paper towels.	Correct in consultation with Faculty/ Facilities	OHSC Part 4, 23(a) CBS 3.6.4	- If a worker may be contaminated by a harmful substance at a work site, the employer must (a) provide the facilities, including showers, the worker needs to remove the contamination before the worker leaves the work site, - Sinks to be provided and located to facilitate handwashing upon exit from the containment zone.
B	Are personal clothing stored separately from dedicated PPE?	Remove PPE from the administrative areas. Store PPE separately from personal clothing.	Correct immediately	CBS 4.5.10	Personal clothing is not be stored adjacent to PPE in the lab. Ideally, there are two separate areas/racks or personal lockers outside lab. PPE is not to be stored or worn in the lab administrative areas. e.g. computer work stations e.g. near windows in HRIC
C	Are personal belongings kept separate from areas where infectious material or toxins are handled or stored?	Remove personal belongings from areas where hazards are handled or stored. Personal belongings can be stored in the lab administrative areas.	Correct immediately	CBS 4.5.11	Personal belongings (e.g. purse, wallet, phone) are not be stored in the lab work areas. Personal belongings can be stored in the lab administrative areas.

D	Eye and face protection is available and matched to the hazards involved?	Ensure safety glasses, goggles, face shields are readily available or being worn by personnel.	Correct immediately	OHSC Part 18, 229(1)	- If a worker's eyes may be injured or irritated at a work site, an employer must ensure that the worker wears properly fitting eye protection equipment
E	Protective gloves are available and matched to hazards involved?	Ensure protective gloves are ready available for personnel which match to hazards involved e.g. chemical, hot, cold, scrape, scratch, cuts, etc.	Correct immediately	OHSC Part 18, 242	- Worker wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified.
F	Lab coats or other appropriate protective clothing are available and matched to the hazards involved?	Ensure protective gloves are ready available for personnel which match to hazards involved rubber apron, leather apron, tyvek suit, etc.	Correct immediately	OHSC Part 18, 242	- Worker wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified
G	Lab coats are not used or stored outside of the laboratory?	Do not use or store lab coats in locations such as offices, lunchrooms, rest rooms, conference rooms, etc.	Correct immediately	OHSC Part 4, 23(b)	- Ensure that only those articles and clothing that have been properly decontaminated or cleaned are taken from the work site by the worker
H	No evidence of food in the laboratory?	Remove food or drinks laboratories or areas where eating and drinking is prohibited.	Correct immediately	OHSC Part 4, 25(2) CNSC - Lab rules CBS 4.6.1	- A worker must not eat, drink or smoke tobacco in a part of a work site contaminated by a harmful substance. - Do not eat, drink, store food or smoke in the laboratory. - UofC lab rules (Chemical, Biohazard and Radioactive)
I	Surfaces are free of accumulations of dirt, dust and debris?	Keep lab clean, free from obstructions, and free from materials that are in excess, not required, or that cannot be easily decontaminated.	Correct immediately	AFC 3.2.7.4 1) CBS 4.6.35	- Areas where dangerous goods are stored shall be kept free of waste packaging materials, debris of any kind, or any spilled product. - Containment zone (including floors) to be kept clean, free from obstructions, and free from materials that are in excess, not required, or that cannot be easily decontaminated.

#	Biosafety Work Practices General	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Traffic flow patterns from low contamination area to high contamination area?	Establish traffic/work flow pattern	Correct immediately	CBS 4.6.7	-Traffic flow patterns from low contamination area to high contamination area is followed based on local risk assessment.
B	Dedicated computer & paperwork are segregated from lab work stations/animal rooms/cubicles?	Segregate computer and paperwork from lab work station etc.	Correct immediately	CBS 4.6.8	-Dedicated computer & paperwork must be segregated from lab work stations/animal rooms/cubicles.

#	Biosafety Handling Infectious Materials and Toxins	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Biohazards stored outside of lab are locked and stored in labelled and leak-proof containers?	Lock storage units outside lab. Samples in upright position are considered leak-proof.	Correct immediately	CBS 4.6.20	-Biohazards stored outside of lab are kept locked and stored in labelled, leak-proof, impact resistant containers.
B	Centrifugation of aerosol-transmissible infectious material is performed in sealed safety cups/rotors?	Purchase sealed safety cups (or rotors) and unload in a BSC.	Correct immediately	CBS 4.6.28	-Centrifugation of aerosol-transmissible infectious material is performed in sealed safety cups/rotors that are unloaded in a BSC.
C	Sustained open flames are prohibited in a BSC?	EHS to submit Archibus request to remove natural gas supply to BSC	EHS to request from Facilities	CBS 4.6.30	- Use of on-demand open flames in a BSC to be strictly limited and avoided when suitable alternatives are available; sustained open flames to be prohibited in a BSC.
D	Sharps are discarded in sharps containers?	Enforce the use of sharps containers.	Correct immediately	CBS 4.8.3	- Sharps to be discarded in containers that are leak-proof, puncture-resistant, and fitted with lids, or specially constructed for the disposal of sharps waste.

#	Biosafety Cabinet (BSC)	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Certified BSCs and other primary containment devices are available?	Purchase BSC, when required based on work activities.	Correct immediately	CBS 3.7.1	-Certified BSCs and other primary containment devices to be provided, based on work activities.
B	Closed system is used to prevent the release of infectious material?	Modify system to prevent release. Examples of closed system are centrifuge cups, vacuum systems, process flow equipment	Correct immediately	CBS 3.7.4	-Process equipment, closed systems, and other primary containment devices to be designed to prevent the release of infectious material or toxins.
C	BSCs are located away from high traffic areas, doors, windows, and air supply/exhaust diffusers?	Submit request to biosafety.cabinets@ucalgary.ca	Correct immediately	CBS 3.7.6	-BSCs, when present, to be located away from high traffic areas, doors, windows, and air supply/exhaust diffusers?
D	BSCs are certified annually, upon initial installation, and after any repairs, modification or relocation?	Submit request to biosafety.cabinets@ucalgary.ca	Correct immediately	CBS 4.6.15	-BSCs, where present, to be certified upon initial installation, annually, and after any repairs, modification or relocation.
E	Gloves are removed before exiting the BSC?	Enforce removal of gloves before exiting the BSC.	Correct immediately	CBS 4.5.15	-Personnel to remove gloves and wash hands when exiting the containment zone, animal room, animal cubicle, or PM room.

#	Biosafety Autoclave	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Decontamination logbook is available to capture operational parameters?	Create log that includes date, cycle number, time, temperature, and pressure.	Correct immediately	CBS 3.7.14	Decontamination technologies to be provided with monitoring and recording devices to capture operational parameters.
B	Decontamination logbook is available for process changes or when new pathogens are introduced?	Create log that includes date, cycle number, time, temperature, and pressure and representative loads.	Correct immediately	CBS 4.8.10	Decontamination technologies and processes to be validated prior to initial use and when significant changes to the processes are implemented or new pathogens are introduced.
C	Verification of decontamination processes is recorded in logbook?	Create log that includes date, cycle number, time, temperature, and pressure, representative loads.	Correct immediately	CBS 4.8.11	Decontamination technologies and processes to be routinely verified, as described in SOPs. Frequency of verification to be determined by a LRA.

Radioisotope

#	Radioactive Work Practices General	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Radioactive lab card is posted at each entrance to the lab?	Contact RSO to generate a Lab Card for each entrance. Lab Card has CNSC required notice.	Correct immediately	GNSC 14(1)	<p>14 (1) Every licensee other than a licensee who is conducting field operations shall post, at the location specified in the licence or, if no location is specified in the licence, in a conspicuous place at the site of the licensed activity,</p> <p>(b) a notice containing</p> <p>(i) the name of the licensee,</p> <p>(ii) a description of the licensed activity,</p> <p>(iii) a description of the nuclear substance, nuclear facility or prescribed equipment encompassed by the licence, and</p> <p>(iv) a statement of the location of the licence and any record referred to in it.</p> <p>- Every licensee shall post and keep posted, at the boundary of and at every point of access to an area, room or enclosure, a durable and legible sign that bears the radiation warning symbol</p>
B	Lab doors are locked and secured when lab is unoccupied?	Lock lab door when unoccupied.	Correct immediately	Radioactive Lab Safety Rules #1	<p>- Keep laboratory locked when unattended.</p> <p>- Keep unauthorized person out of the laboratory.</p>
C	Permit is posted inside the lab and is clearly visible?	Contact RSO to get a copy of the Permit.	Correct immediately	CNSC Licence Condition #13	<p>The licensee shall ensure that:</p> <p>a) internal authorizations are issued with the licensee's internal authorization policies and procedures approved by the Commission or a person authorized by the Commission; and</p> <p>b) internal authorization forms are posted in a readily visible location in or near each room, area or enclosure where nuclear substances and radiation devices are used or stored.</p> <p>c) the licensed activity is conducted in accordance with the terms and conditions of the internal authorization.</p>
D	Lab rules are posted inside the lab and are clearly visible?	Contact RSO to get a copy of the Radioisotope Laboratory Safety Rules.	Correct immediately	CNSC Licence Condition #3	<p>The licensee shall post and keep posted, in a readily visible location in areas, rooms or enclosure where nuclear substances are handled, a radioisotope safety poster approved by the Commission or a person authorized by the Commission, which corresponds to the classification of the area, room or enclosure.</p>

E	Radiation Safety & Procedures Manual is available in the lab?	Place the Radiation Safety & Procedures Manual in the lab.	Correct immediately		
F	Emergency procedures is available in the Radiation Safety & Procedures Manual?	Contact RSO to get a copy of the Radioactive Spills and Decontamination Procedures.	Correct immediately	GNSC 17	(f) take all reasonable precautions to control the release of radioactive nuclear substances or hazardous substances within the site of the licensed activity and into the environment as a result of the licensed activity; (g) implement measures for alerting the licensee to the illegal use or removal of a nuclear substance, prescribed equipment or prescribed information, or the illegal use of a nuclear facility; (h) implement measures for alerting the licensee to acts of sabotage or attempted sabotage anywhere at the site of the licensed activity.

#	Personnel	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	List of individuals authorized to access the lab is in the Radiation Safety & Procedures Manual?	Update authorized users list in the Radiation Safety Manual	Correct immediately	CNSC lab rules	- Keep unauthorized persons out of the laboratory.
B	Are Nuclear Energy Workers (NEW) identified on authorized users list?	Update authorized users list in the Radiation Safety Manual	Correct immediately	Radiation Safety Manual	- Radioisotope Permit Holder must maintain a list of personnel authorized to use nuclear substances and of those individuals authorized to have access to the laboratory. A copy of Figure 4-a is to be completed and kept in the laboratory copy of the Radiation Safety & Procedures Manual.
C	Are training records for NEW available? (Retained for three years after termination)	Locate records and amalgamate in one location, binder or file.	Correct as soon as possible	GNSC 12(1)	- every licensee shall <i>“train the workers to carry on the licenced activity in accordance with the Act, the regulations made under the Act and the licence”.</i>
D	Are Training records for non-NEW available? (Retained for three years after termination)	Locate records and amalgamate in one location, binder or file.	Correct immediately	GNSC 12(1)	- every licensee shall <i>“train the workers to carry on the licenced activity in accordance with the Act, the regulations made under the Act and the licence”.</i>
E	Lab coats are worn when handling radioactive material?	Wear lab coats when handling radioactive materials.	Correct immediately	CNSC lab rules	- Use protective clothing, gloves and equipment when handling radioactive material

F	Protective gloves are worn when handling radioactive materials?	Wear protective gloves when handling radioactive materials.	Correct immediately	CNSC lab rules GNSC 17	- Use protective clothing, gloves and equipment when handling radioactive material 17 Every worker shall (a) use equipment, devices, facilities and clothing for protecting the environment or the health and safety of persons, or for determining doses of radiation, dose rates or concentrations of radioactive nuclear substances, in a responsible and reasonable manner and in accordance with the Act, the regulations made under the Act and the licence;
G	Dosimeters are worn when working with radioactive materials?	Wear dosimeters when handling radioactive materials.	Correct immediately	CNSC Licence Condition #13	The licensee shall ensure that: a) internal authorizations are issued with the licensee's internal authorization policies and procedures approved by the Commission or a person authorized by the Commission; and b) internal authorization forms are posted in a readily visible location in or near each room, area or enclosure where nuclear substances and radiation devices are used or stored. c) the licensed activity is conducted in accordance with the terms and conditions of the internal authorization.
H	Bioassay is performed when required (I-125 & I-131)?	Review Radioisotope Part II Conditions of Approval with all lab personnel who handles I-125 or I-131.	Correct immediately	CNSC Licence Condition #13	The licensee shall ensure that: a) internal authorizations are issued with the licensee's internal authorization policies and procedures approved by the Commission or a person authorized by the Commission; and b) internal authorization forms are posted in a readily visible location in or near each room, area or enclosure where nuclear substances and radiation devices are used or stored. c) the licensed activity is conducted in accordance with the terms and conditions of the internal authorization.

#	Usage, Storage and Disposal	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Nuclear substance storage area is labeled?	Contact RSO for storage label and attach label to the storage area.	Correct immediately		- Every licensee shall post and keep posted, at the boundary of and at every point of access to an area, room or enclosure, a durable and legible sign that bears the radiation warning symbol
B	Nuclear substance storage area is secured?	Lock the storage area.	Correct immediately	Radiation Safety Manual	Access, Security, Storage, Labelling and Interlab Transport - It is the responsibility of the Radioisotope Permit Holder to secure nuclear substances in their possession and ensure the materials are stored in a manner to prevent unauthorized access or removal.

C	Nuclear substances are not left unsupervised, unless room is locked?	Lock lab door when unoccupied.	Correct immediately	Radiation Safety Manual	Access, Security, Storage , Labelling and Interlab Transport - It is the responsibility of the Radioisotope Permit Holder to secure nuclear substances in their possession and ensure the materials are stored in a manner to prevent unauthorized access or removal.
D	Radioactive material containers have radiation warning symbol?	Label all radioactive containers of radioactive material with radiation warning symbol, isotope, activity and reference date.	Correct immediately	RP 20	Labelling of Containers and Devices 20 (1) No person shall possess a container or device that contains a radioactive nuclear substance unless the container or device is labelled with (a) the radiation warning symbol set out in Schedule 3 and the words "RAYONNEMENT — DANGER — RADIATION"; and (b) the name, quantity, date of measurement and form of the nuclear substance in the container or device.
E	Working surfaces for handling radioactive materials are clearly identified?	Label all radioactive work areas with radioactive warning tape on all four sides.	Correct immediately	Radiation Safety Manual	- Labelling requirements for Radiation Work Areas and Equipment The radioactive warning tape is required to be visible and fully enclosed on all four sides of the radioactive work area.
F	Is radiation warning symbol on equipment within the radioactive work area?	Label all equipment within the radioactive work areas with radioactive warning tape.	Correct immediately	Radiation Safety Manual	- Small equipment (micropipettes, glassware, etc.) must be designated for use within radioactive work areas and labelled with radioactive warning tape.
G	Radioactive work surfaces are covered with disposable absorbent covers?	Place absorbent cover in radioactive work areas.	Correct immediately	Radiation Safety Manual	- Radioactive work areas and waste trays are required to be covered with appropriate ABSORBENT bench top covering.
H	Radiation warning signs are not posted where there are no nuclear substances or plans to use?	Remove radiation warning signs where there are no nuclear substances	Correct immediately	Radiation Protection Regulations 23	Frivolous Posting of Signs 23 No person shall post or keep posted a sign that indicates the presence of radiation, a nuclear substance or prescribed equipment at a place where the radiation, nuclear substance or prescribed equipment indicated on the sign is not present.
I	Are inventory records completed (i.e. usage, room, procedure, user name, date, disposal amount)?	Update radioactive materials inventory records immediately after they are used, stored or disposed.	Correct immediately	Radiation Safety Manual Radioisotope Inventory Requirements	Radioactive materials must be tracked from acquisition, during storage, use, and until final disposal.

J	Radioactive waste disposal authorization forms are available (copies available - 3 years)?	Maintain radioactive waste disposal records. Locate all waste disposal records and amalgamate in one location, binder or file.	Correct immediately	NSRD 36	36 (1) Every licensee shall keep the following records: (a) a record of the following information in respect of any nuclear substance in the licensee's possession that is referred to in the licence: (i) the name, quantity, form and location of the nuclear substance, (ii) where the nuclear substance is a sealed source, the model and serial number of the source, (iii) where the nuclear substance is contained in a radiation device, the model and serial number of the device, (iv) the quantity of the nuclear substance used, and (v) the manner in which the nuclear substance was used; (e) a record of every inspection, measurement, test or servicing performed by the licensee in accordance with the Act, the regulations made under the Act or the licence in respect of any radiation device containing a nuclear substance that the licensee is authorized by the licence to possess. (3) Every person who is required to keep a record referred to in paragraph (1)(e) or subsection (1.1) shall retain the record for the period ending three years after the earlier of the expiry date and the date of revocation, if any, of the licence.
K	Work in fume hood as required by Conditions of Approval?	Review Radioisotope Part II Conditions of Approval with all lab personnel who handles radioactive materials.	Correct immediately	Licence Condition	The licensed activity is conducted in accordance with the terms and conditions of the internal authorization and Radiation Safety Manual

#	Contamination Control	Suggested Corrective Actions	Timeline for Correction	Regulatory Reference	Regulatory Reference Wording
A	Is contamination survey meter operational (i.e. batteries have sufficient energy)?	Replace the batteries in the instrument.	Correct immediately	Licence Condition	Contamination Meter requirements. The licence shall make available to workers at all times at the site of the licensed activity a properly functioning portable contamination meter.
B	Results of monitoring/swipes of incoming nuclear substances packages are	Complete contamination survey on radioactive materials immediately after it is received and record the results on the inventory sheet.	Correct immediately	PTNS	Contamination levels on all packaging must be below 0.4 Bq/cm ² , if above required to inform shipper and transport company.

	recorded on inventory sheet?				
C	Is there a contamination logbook (for each room, floor plan, list of areas to be checked)?	Review contamination logbook requirements in the Radiation Safety Manual.	Correct immediately	Licence Condition	Radiation Safety Manual - Contamination Logbook requirements
D	Contamination monitoring logbook entries are completed at least weekly?	Follow the Radiation Monitoring and Contamination survey procedure to complete the Contamination monitoring logbook	Correct immediately	Licence Condition	The licensed activity is conducted in accordance with the terms and conditions of the internal authorization and Radiation Safety Manual - Contamination Logbook requirements
E	Liquid scintillation printouts records are maintained (3 years in chronological order)?	Locate all scintillation printout records and amalgamate in one location, binder or file.	Correct immediately	NSRD 36	36 (1) Every licensee shall keep the following records: (a) a record of the following information in respect of any nuclear substance in the licensee's possession that is referred to in the licence: (i) the name, quantity, form and location of the nuclear substance, (ii) where the nuclear substance is a sealed source, the model and serial number of the source, (iii) where the nuclear substance is contained in a radiation device, the model and serial number of the device, (iv) the quantity of the nuclear substance used, and (v) the manner in which the nuclear substance was used; (e) a record of every inspection, measurement, test or servicing performed by the licensee in accordance with the Act, the regulations made under the Act or the licence in respect of any radiation device containing a nuclear substance that the licensee is authorized by the licence to possess. (3) Every person who is required to keep a record referred to in paragraph (1)(e) or subsection (1.1) shall retain the record for the period ending three years after the earlier of the expiry date and the date of revocation, if any, of the licence.
F	Monitoring of radioactive equipment after use to	Complete contamination survey of immediate work area. If	Correct immediately	Licence Condition	The License shall ensure that for nuclear substance.

	ensure contamination criteria is not exceeded?	contamination above criteria, re-swipe items and area to verify decontamination.		Radiation Safety Manual, Radiation Monitoring and Contamination Surveys	<ul style="list-style-type: none"> a) Non-fixed contamination in all area, rooms and enclosures where unsealed nuclear substances are used or stored does not exceed. - 3 or 5 Becquerels per square centimeter. Depending upon nuclear substance b) Non-fixed contamination in all other areas does not exceed. - 0.3 or 0.5 Becquerels per square centimeter. Depending upon nuclear substance
G	Removal of lab coat and washing of hands before leaving laboratory?	Remove lab coats and wash hands prior to exiting lab.	Correct immediately	CNSC - Lab rules	- Wash hands thoroughly and monitor before leaving the laboratory.