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| University of Glasgow logo |  Cryogenic Store Inspection  |
| **School / Service / Unit:** |  |
| **Building:** |  |
| **Room Number:** |  |
| **Responsible person:** |  |
| **Safety Coordinator:** |  |
| **What cryogenic material(s) are present?** |  |
| **What is the purpose of the store?** |  |
| **Physical Design / Condition of Store** |
|  | **Yes / No** | **Comments / proposed Actions** |
| **Is the cryogenic storage area located outside in fresh air?** |  |  |
| **Is the store located in a dedicated area which is not used for anything else?** |  |  |
| **Is the cryogenic store located next to an exterior wall of the building?** |  |  |
| **Is the access to the store secured from unauthorised access (lock, keypad etc.)?** |  |  |
| **Is the store used as a means of access or egress for staff / students?** |  |  |
| **Is the store located on an emergency exit route (e.g. fire escape route)?** |  |  |
| **Is the store appropriately signed on all points of access?** |  |  |
| **Is the access door fitted with a vision panel to allow a clear view of the interior** |  |  |
| **Is the housekeeping of the store good with clear floors and no rubbish present?** |  |  |
| **Is the floor in good condition i.e. is it level and free of cracks and depressions?** |  |  |
| **What is the approximate volume of the room or laboratory?** |  |  |
| **Other (please specify)** |  |  |
| **Liquid Nitrogen Tanks and Dispensing** |
|  | **Yes / No** | **Comments** |
| **Does the storage area include an external bulk cryogenic storage / delivery tank?** |  |  |
| **Does the internal storage area contain one or more self-filling cryogenic storage tanks?** |  |  |
| **Does the storage tank operate automatically or is it filled manually?** |  |  |
| **Does automatic tank filling occur at the same time every day?** |  |  |
| **Does the storage area contain one or more pressurised storage / dispensing vessels?** |  |  |
| **Does the storage area contain one or more unpressurised Dewar vessels (25l or more)?** |  |  |
| **Does the storage area contain one or more unpressurised Dewar vessels (less than 25l)?** |  |  |
| **Does the area contain a cryogenic dispensing system connected to an external tank?** |  |  |
| **What is the maximum capacity of liquid nitrogen present in the room?** |  |  |
| **What is the total capacity of largest cryogenic container in the area?** |  |  |
| **What is the total capacity of any piped supply tanks supplying the room?** |  |  |
| **Are all dispensing systems fitted with a “deadman switch” to prevent overflow?** |  |  |
| **Other (please specify)** |  |  |
| **Ventilation System** |
|  | **Yes / No** | **Comments** |
| **Is the room fitted with a mechanical or electrical fume extraction system?** |  |  |
| **Is the room fitted with an emergency extraction system liked to the oxygen alarm?** |  |  |
| **Is the store fitted with a fully or partially louvered door to the outside?**  |  |  |
| **Is the room fitted with non-mechanical ventilation grilles at low level?** |  |  |
| **Is the room fitted with non-mechanical ventilation grilles at high level?** |  |  |
| **Is the room fitted with a solid door to the outside which can be opened for ventilation?** |  |  |
| **Other (please specify)** |  |  |
| **Emergency Equipment / Procedures** |
|  | **Yes / No** | **Comments** |
| **Are the emergency procedures clearly displayed in the store / laboratory?** |  |  |
| **Is an emergency contact list available including contact phone numbers?** |  |  |
| **Is the store / laboratory equipped with a telephone?** |  |  |
| **Is there a means of accessing or ventilating the room from the outside?** |  |  |
| **Are the actions to take in the event of the alarm sounding clearly displayed?** |  |  |
| **Is an out of hours call-out service in place for alarms or other incidents?** |  |  |
| **Is a first aid kit available?** |  |  |
| **Is an eye wash station available (please specify type)?** |  |  |
| **Other (please specify)** |  |  |
| **Personal Protective Equipment** |
| **Category** | **Yes / No** | **Comments** |
| **Is a suitable face shield supplied within the cryogenic store or laboratory?** |  |  |
| **Is a suitable non-absorbent apron supplied within the cryogenic store or laboratory?** |  |  |
| **Are insulated gloves supplied within the cryogenic store or laboratory?** |  |  |
| **Are closed toe shoes provided to staff involved in decanting cryogenic liquids?** |  |  |
| **Is appropriate storage present for PPE which is held in the store (e.g. hooks, shelves)** |  |  |
| **Is signage clearly displayed in the room or at the point of entry to identify required PPE.** |  |  |
| **Is there an inspection regime in place for any protective equipment supplied?** |  |  |
| **Other (please specify)** |  |  |
| **Policies and procedures** |
|  | **Yes / No** | **Comments** |
| **Are standard operating procedures available for cryogenic activities?** |  |  |
| **Is a risk assessment available for all activities involving cryogenic materials?** |  |  |
| **Are all staff that enter the area trained in cryogenic safety?** |  |  |
| **Is lone working permitted within the store or laboratory?** |  |  |
| **Are the pressure vessels regularly inspected and in good working order?** |  |  |
| **Is there a policy in place for transporting liquid nitrogen in lifts?** |  |  |
| **Are lifts used for transport fitted with barriers to prevent unauthorised access?** |  |  |
| **Other (please specify)** |  |  |
| **Oxygen Monitors / Sensors** |
|  | **Yes / No** | **Comments** |
| **Is the room fitted with a fixed oxygen monitoring system with an integrated alarm?** |  |  |
| **Are adjacent basement areas or lift shafts fitted with an oxygen monitoring system?** |  |  |
| **Does the alarm associated with the monitoring system operate at 19.5% oxygen?** |  |  |
| **Is the oxygen sensor located appropriately (low level and away from overflows)?** |  |  |
| **Is the alarm fitted with a sounder and beacon audible/visible from outside the store?** |  |  |
| **Is the alarm sounder easily distinguishable from other alarms (e.g. fire alarms)?** |  |  |
| **Is the oxygen level readout clearly visible from a safe location outside the room?** |  |  |
| **Are personal oxygen monitors available to staff working in the area?** |  |  |
| **Are personal oxygen monitors available at the point of entry into the store / laboratory?** |  |  |
| **Is there a system for checking and/or replacing personal oxygen monitors?** |  |  |
| **Other (please specify)** |  |  |
| **Other Notes and Comments** |
|  |
| **Inspection Completed By** |
| **Name**  |  |
| **Position** |  |
| **E-mail** |  |
| **Date of Completion:** |  |