



University of Sheffield

Risk Assessment – Biorepository Location Suitability

PERSONS AT RISK: Employees (X) Contractors (X) Public () Visitors (X) Others ()			Reference number: RA-BIO-101		
RISK (H) High (M) Medium (L) low (O) No Risk			Environment: Biorepository Buildings, C-road, Royal Hallamshire Hospital		
TASK or ACTIVITY:		INITIAL RISK LEVEL			FINAL RISK LEVEL
Significant Hazard	Potential Consequences of Hazard		Existing Control Measures	Additional Control Measures (If Required)	
Security and Access	To comply with the Human Tissue Act samples must be kept within safe and secure buildings. Failure to control access to these buildings, which are unstaffed, would breach conditions of licence.	H	High anti-climb gates locked to prevent access to freezer stores. Doors to freezers rooms and NO2 store have high security locks. Keys are secured and only accessible to Biorepository staff. RHH security staff onsite 24 hours a day.		L
Electricity Supply	Freezers (Sanyo - MDF-U53V), Nitrogen autofill, alarm systems, etc. need a constant supply of power to function. Sample integrity requires a controlled environment is maintained.	H	Power to Biorepository is monitored and maintained by STH estates. Power to cold storage systems monitored by Tutela, 24 hour remote monitoring alert system, and display panels. Freezers have CO2 backup connected, providing up to		L

			<p>48 hours protection.</p> <p>NO2 tanks are checked regularly, pool of nitrogen sufficient to last approx. 1 week in the event of power failure.</p>		
Cleaning	<p>Damage to equipment can occur with a build-up of debris.</p> <p>Trips, slips and falls risk from cluttered/ untidy walkways.</p> <p>Loss of equipment and records if location becomes disorganised.</p>	M	<p>Cleaning rota is in place and maintained by the Biorepository Technician.</p> <p>Doors and filters exclude significant dirt from outside facility.</p> <p>Set layout for facilities and equipment is maintained.</p>		L
Temperature Control	<p>Cold storage systems, and room temperature samples, require an ambient temperature range from 15-25C to safeguard sample integrity.</p> <p>Staff working conditions ideally require a comfortable ambient temperature to prevent frostbite/ heat exhaustion.</p>	H	<p>Room temperature is monitored by Tutela system, linked to remote monitoring station.</p> <p>STH estates maintain and service air conditioning.</p> <p>Staff monitor display panels during access to check temperature.</p>		L
Gases	<p>Sealed locations can trap gases causing asphyxiation or explosion.</p> <p>Build-up of gases can permeate electronic systems causing damage.</p>	M	<p>CO2 and NO2 monitors are installed and serviced yearly. These have test buttons and display panels plus audio alarms.</p> <p>Alarm and flashing light warning visible/ audible outside of buildings.</p>		L

Weatherproofing	Heat from the sun and water from rainfall will damage equipment and electrical systems.	H	Buildings are of sound construction in geologically stable location. Roofing and walls are monitored and maintained by STH estates.		L
Vehicle Impact	Road beside buildings used by cars, vans, etc. Trolleys and other manual carts are pushed around the area. These could damage the exterior of the building and potentially penetrate through to the interior, causing significant damage to the contents.	M	The STH site has a 5mph speed limit in place for vehicles using C-road. Bollards and designated walkways are in place to keep traffic/ pedestrians from impacting buildings.		L
War/ Natural Disaster	Damage to the power supply and building from violent external forces may result in loss of samples and failure of cold storage.	H	The Biorepository is located in a temperate region with no history of catastrophic weather phenomena. Government security policies mitigate the threat of war and terrorism making it unlikely the Biorepository would suffer from an attack.		L
Criminal Damage	Sabotage and theft attempts will cause a loss of confidence in the integrity of storage. Losses through equipment that is vandalised or removed.	M	Security staff and cameras monitor the site 24 hours a day. Locks and gates prevent access to the buildings. Alarms detect intruders and alert RHH staff.		L
				Overall Risk:	L

Comments:			
Additional References, Tasks Etc			
Fire Risk Assessment			
Undertaken By:		Steven Haynes	
		Revision Date:	20/05/2016
Other Persons Consulted:		Revision Date:	20/05/2017
		Revision Date:	20/05/2018
Date:	20/05/2017	Revision Date:	

Use the table given on the risk matrix to score your hazard or activity for the probability ('L') likelihood harm will occur and the severity ('S') of the outcome.