

Translational Research Consortium for Establishing Platform Technologies to Support Prophylactic and Therapeutic Strategies for Dengue Discovery to Proof-of-Concept

Translational Health Science and Technology Institute, Faridabad

Environmental and Health Risk Management Plan

1. Environmental Impact and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Air Pollution	Minimal Risk	Running of diesel generators during power failures	Project implementation will not cause any adverse air pollution.
Water Pollution and Waste water treatment	Minimal Risk	All the laboratory waste is handled by the effluent treatment plant and there is no release of waste water into municipal drainage.	THSTI has an efficient sewage treatment and waste water utilization policy where 100% of the waste water is utilized for horticulture purposes.
Chemical waste	Minimal Risk.	Chemical waste is disposed as per the biosafety guidelines	Chemical waste is disposed as per the biosafety guidelines
Biological Waste	Minimal Risk.	Virus culture supernatants, bacterial culture waste	IBSC approval and GLP practices are being followed.
Heavy metals	Minimal Risk	Project implementation will not cause any adverse heavy metal waste.	Project implementation will not cause any adverse heavy metal waste.
Radiation Waste	Minimal Risk	Project implementation will not cause any adverse radiation waste	Project implementation will not cause any radiation waste

Destruction/alteration of surrounding ecosystem	Minimal Risk	Project implementation will not cause any adverse destruction/alteration of surrounding ecosystem waste	IBSC approval and GLP practices will be followed.
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2. Occupational Health and Safety and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Heat Hazards	Minimal Risk	Heat Hazards	BSL-2 lab practices and GLP practices for occupational safety. Training of Manpower
Chemical hazards, including fire and explosions	Minimal Risk	Chemical hazards, including fire and explosions	BSL-2 lab practices and GLP practices for occupational safety. Training of Manpower
Pathogenic and biological hazards	Minimal Risk	The project involves handling BSL-2 viruses	BSL-2 lab practices and GLP practices for occupational safety. Training of Manpower
Radiological hazards	Minimal Risk	Project implementation aspects will not cause any adverse radiological hazards.	BSL-2 lab practices and GLP practices for occupational safety. Training of Manpower
Noise	Minimal Risk	Project implementation aspects will not cause high noise level.	Project implementation aspects will not cause high noise level.
Process safety	Minimal Risk	Engineering and equipment maintenance shall be undertaken as per SOPs.	BSL-2 lab practices and GLP practices for occupational safety. Training of Manpower

3. Community Health and Safety and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Safety Transportation Management System (for transport of hazardous material)	Minimal Risk.	Clinical samples will be transported to laboratories	SOPs are in place and training for clinical sample transportation will be provided.
Emergency preparedness and participation of local authorities and potentially affected communities	Minimal Risk	Localised	There are Institutional policies and procedures for emergency preparedness.
<p>In case your organization already has EHS guideline, please summarise the same. If not, please describe the impact because of hazardous material, release of chemicals, biologicals, management of catastrophic events like fire/explosion.</p> <p>THSTI has organized waste collection and disposal procedures. IBSC committee is operational for project approvals and inspection. Fire exit signs are placed and regular fire drills and trainings are conducted. THSTI has set procedures for the operation of the small animal facility, labs and the SOPs will be followed for maintenance of equipments, management of chemical and biological wastes. Manpower training is part of the management process.</p>			

Notwithstanding the above other risk (relevant to the project activities) that will be identified in the course shall be addressed as per standard mitigation monitoring parameters and manner of records keeping shall be in accordance to the recommendations of the project monitoring committee on subject experts engaged by BIRAC.