

Environment, Health and Safety Risk Management Plan

1. Environmental Impact and risk mitigation

Risk	Project Specific Risk	Potential Impact	Mitigation Steps
Air Pollution	Minimal risk	Inadvertent air contamination of virus	Outgoing air from critical lab passes through HEPA filters of BSL-2 and BSL-3 Labs
Water Pollution	Minimal risk	Inadvertent contamination of water	All liquid waste from critical area treated in effluent treatment plant(ETP)
Chemical waste	Marginal impact	Some chemicals are carcinogenic and might induce adverse impact on health	By following the process specified for the chemical disposal provided by manufacturers.
Biological Waste	Minimal risk	Inadvertent contamination with virus, risk of infection to staff and community	Waste management system (Annexure A)
Heavy metals, Radiation wastes, destruction of surrounding ecosystem	Minimal risk	Project implementation aspects will not create any adverse heavy metals waste.	Not required

2. Occupational Health and Safety and risk mitigation

Risk	Project Specific Risk	Potential Impact	Mitigation Steps
Heat Hazards	Minimal risk	Burn related to seam of autoclave	All necessary procedures are in place to prevent heat associated hazards particularly in SOP of autoclaves, washing areas etc
Chemical Hazards	Minimal risk	Injuries	Chemicals are stored in ventilated cup boards and aliquots are prepared in fume hoods available on all the floors
Fire Hazards	Minimal risk	Injuries, property loss	Fire safety equipment
Pathogenic and biological hazards	Marginal impact	There will be chance of infection with virus	Appropriate Biosafety precautions are taken by all workers. Infectious organisms are handled in Biosafety cabinets following SOPs
Process safety	Minimal risk	There may be chance of contamination with virus	All work is done in BSL-2 lab, following Biosafety guidelines
Radiological and noise hazard	Minimal risk	Project implementation will not cause any radiological hazards.	Not applicable

3. Community Health and Safety and risk Mitigation

Risk	Project Specific Risk	Potential Impact	Mitigation Steps
Transport of hazardous material	Minimum	minimum	As described in waste management system (Annexure A)
Emergency preparedness Plan	Minimal	Not much	Onsite emergency plan, mock drills, communication system is in place
Communication with local community	minimum	Misunderstanding about the project in community	Detailed information has been shared with Pune Municipal Corporation authorities and local community representatives)



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