

 BHARAT BIOTECH <i>Lead Solutions</i>	Environmental and Health Risk Management Plan	EHS
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1. Institutional Arrangements

Requirements	Current Status	Mitigation Steps
Institutional Bio-Safety Committee (IBSC)	Institutional Biosafety Committee (IBSC) is constituted and meets regularly.	Institutional Biosafety Committee is in place and working
EHS Team	EHS team is deployed at site.	EHS Team is in place and working
Documentation and Record Keeping in reference to the risks mentioned below and quantifiable records of generated waste and compliance measures.	SOPs are available at site. Waste generation record is maintained in line with compliance of the local law requirement.	The validity and availability of the document shall be monitored periodically and proactive action taken to mitigate if there is any foreseeable risks
SOPs related to Environment Compliance. E.g: Handling of Biohazardous, hazardous and unwanted pharmaceutical wastes generated in plant.	SOPs are available at site. SOP No : EHD/015 & EHD/020	The adherence to SOPs will be ensured by the Managers and EHS Dept.
General Safety and Storage	General safety storage requirements are fulfilled in line with type of risk and requirements to contain the same.	The adherence to SOPs will be ensured by dedicated personnel and committee

2. Environmental Impact and Risk Mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Air Pollution	Minimal risk	Negligible	Monthly monitoring of Ambient air quality is carried out and parameters are maintained well below as per Air (Prevention and Control of Pollution) Act, 1981.
Water Pollution and Waste water treatment	Minimal risk	1. The potential impact is negligible as the Effluent water treatment is carried out in ETP inside the facility and maintaining the parameters as per PCB norms.	1. To maintain the parameters within limit and daily analysis of Effluent samples is carried out in the inhouse lab. 2. Monthly Analysis of effluent samples by external Laboratory certified by NABL & MoEF.

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		<p>2. The parameters are maintained well below as mentioned in the CFO.</p> <p>3. The treated Effluent water i.e RO permeate is used for Utilities and Gardening purpose.</p>	<p>3. The Parameters are maintained well below as per Water (Prevention and Control of Pollution) Act, 1974</p>
Chemical waste	Minimal risk	The potential impact is low as chemical waste is discarded as per SOP to the third party approved by Telangana State Pollution control board.	The chemical & Hazardous waste is disposed as per SOP: EHD/020. SOP title- Destruction and safe disposal of Unwanted Pharmaceutical and other material.
Biological Waste	Minimal risk	The potential impact is low as Biological waste is discarded as per SOP to GJ Multiclave (India) Pvt.Ltd. (certified by Telangana State Pollution control board.	Controlled through Handling storage and disposal of Biomedical waste Standard Operating Procedure: SOP No: EHD/015 Title: Handling of Biohazardous/Hazardous waste generated in plant.
Heavy metals	Minimal risk	No activity related to utilization or generation of heavy metals is part of project plan.	No activity related to utilization or generation of heavy metals is part of project plan.
Radiation Waste	Minimal risk	Radiation waste is not generated in the company. No activity related to generation or use of radio isotopes in research or manufacturing is under research plan.	Radiation waste is not generated in the company. No activity related to generation or use of radio isotopes in research or manufacturing is under research plan.
Electronic Waste	Minimal risk	The potential impact is negligible, as it will be discarded through authorized dealer.	SOP is in place. SOP no. EHD/047, Title: E-Waste Management.
Hazardous and C&D Waste	Minimal risk	The potential impact is low as Hazardous waste is discarded as per SOP to Telangana State Pollution Control Board	1. The project management team will ensure that the construction debris are cleared as per the Norms of GHMC/ TSIIC. 2. The Hazardous waste is disposed

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		authorized third party.	as per SOP: SOP No: SOP/EHD/015, Title: Handling of Biohazardous /Hazardous waste generated in plant.
Destruction/alteration of surrounding ecosystem	Minimal risk	Very low	As the existing building is used for the project, there will be minimal impact or even no impact on surrounding Eco system.

3. Occupational Health and Safety and Risk Mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Heat Hazards	Minimal risk	Risk of burn injuries	The Steam lines and hot surfaces are insulated along with display of hazard indicating signages.
Chemical hazards, including fire and explosions	Minimal risk	The potential impact will be low as the activities related to Solvent handling are controlled through SOP along with execution of all non-routine activities through "Work Permit System". Procedure in place to handle on-site emergencies.	SOP no. EHD/ 046, Title: Work Permit System. SOP No. EHD/052 Title: General Safety and Emergency Response Planning. Along with these, trained Emergency Response Team (ERT) is available at site.
Pathogenic and biological hazards	Minimal Risk	The potential impact is low as pathogens and biologicals are handled in controlled conditions	Solid waste and liquid waste decontamination procedures are in place.
Radiological hazard	No Risk	Minimal Risk	Radiological waste will not be generated from the facility.
Electronic Waste	Low Risk	Low	An SOP is in place for handling E-waste. SOP No. EHD/047, Title: E-waste Management.
Hazardous and C&D Waste	Minimal Risk	The potential impact is low as Hazardous waste is discarded as	The project management team will ensure that the

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		per SOP to third party approved by TSPCB)	construction debris are cleared as per the Norms of TSIC(Telangana State Industrial Infrastructure Corporation) 2. The Hazardous waste is disposed as per SOP No. EHD/ 015 with title, "Handling of Biohazardous and Hazardous waste generated in plant.
Noise	Minimal Risk	Minimal Risk	Monthly monitoring of Noise pollution will be carried out by the authorized third party and parameters are maintained as per Noise Pollution (Regulation and Control) Rules, 2000
Process safety	Low Risk	Low impact	To minimize the risk HIRA (Hazard identification & risk Assessment) HAZOP (Hazard and operability) study are carried out and preventive measures are implemented as per the Factories Act. 2. Risk shall be minimized by regular safety trainings of Employees, usage of Personal Protective equipment.

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4. Community Health and Safety and Risk Mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Safety Transportation Management System (for transport of Biohazardous / hazardous material)	Minimal risk	The potential impact is low as Biohazardous /Hazardous material are discarded as per SOP to the third party authorized by Telangana State Pollution Control Board (TSPCB).	The Biohazardous /Hazardous waste is disposed as per SOP No. EHD / 015 with title, "Handling of Biohazardous / hazardous waste generated in plant.
Emergency preparedness and participation of local authorities and potentially affected communities	Minimal Risk	Low impact	1. SOP is in place. SOP No. EHD/ 052, title "General Safety and Emergency Response Planning". Fire hydrant system for the site is in place with SOP No. EHD/057, title " Operation and maintenance of Fire Hydrant System". Trained ERT and mock drills are in place.

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.