

Environmental and Health Risk Management Plan

Sree Chitra Tirunal Institute for Medical Sciences and Technology; SCTIMST-TIMed

Proposal entitled: Setting up a Technology Transfer Office at SCTIMST-TIMed

- (i) Brief description of the proposed activity: Setting up a Technology Transfer Office at SCTIMST TIMed with activities under technology transfer & commercialization, training and capacity building programmes and TTO/Cluster strengthening.
- (ii) List of environments related regulatory clearances required for the activity:
- Consent from Pollution control board available

Institutional Arrangement

	Yes	No	Details	Proposed Plan
1. Is there a designated full-time staff for Environment Health and Safety (EHS) issues?	Yes			Available for Host Institute and will be applicable for TTO project also.
2. Does the EHS staff handle the following?			Available for Host Institute	
Occupational Health and Safety	Yes			
Waste Management				
List of consents and regulatory clearances	Yes			
Record keeping of accidents and procedures	Yes			
EHS trainings for staff	Yes			
Environment Management Framework compliance for Innovate in India Project	Yes			
3. Is there a reporting structure in place regarding EHS issues?	Yes		Describe: The procedure for handling such issues is attached	
4. Are regular EHS trainings provided to staff?	Yes		Frequency: Any newly joined staff is trained and there are also interim trainings	
5. Institutional Bio-Safety Committee (IBSC)		No		Will be formed if required
6. Ethics Committee (EC)		No		Will be formed if required

General Occupational Health and Safety

7. Are there Standard Operating Procedures for accidents, hazards, and other emergencies (chemical spills, heat hazards, fire hazards, radioactive hazards etc.)?	Yes		Adopting procedures of Host Institute	
8. Are the following in place?				Emergency Equipment will be checked periodically and
Chemical spill kits	Yes			

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	Eye wash	Yes			replaced from time to time
	Shower stations	Yes			
	First Aid Kit	Yes			
	Fire Extinguishers	Yes			
	Register of accidents and injuries	Yes			
9	Are proper signage and storage system in place?				Will be implemented in 2 months from commencement of project
	Display of Material Safety Data Sheet (MSDS) where relevant		No		
	Display of emergency numbers and procedures (Person to Contact, Doctor, Ambulance, Fire Emergency, Police) displayed in all critical places		No		
	Signage across the facility (labs, storage, hazardous areas, etc.)		No		
	Are flammable materials appropriately stored to prevent fire hazards?		No		
10	Are smoke detectors, fire alarms, automatic safety/shutoff systems, overflow preventors, etc. in place and regularly maintained?	Yes			
11	Are there control measures for VOC, air emissions, high operating temperatures, pathogens/vectors etc. in place?	Yes		In areas where this is applicable it is maintained eg: Clean rooms	
12	Are regular mock drills conducted for emergency preparedness and safety?	Yes		Frequency (type wise):	Annual by host institute
13	Are staff provided with OHS training?			Describe:	Annual by host institute
Biomedical Waste (BMW)					
14	Is there generation of biomedical waste (as described in Bio-Medical Waste Management Rules, 2016) in the grantee?		No	No biomedical waste is generated now General waste only	If bio medical waste generated it will be managed as per Bio-Medical Waste Management Rules, 2016
15	Is there trained staff to handle biomedical waste in the grantee?		No		No biomedical waste is generated now
16	Has the grantee obtained authorization from State Pollution Control Board /Pollution Control Committee?	Yes			Authorization certificate attached
17	Is the biomedical waste segregated at point of generation in the facility and stored in suitable containers?		No	Yellow Red White Blue	No biomedical waste is generated now
18	Is the bar code system for the segregated waste in place?				No biomedical waste is generated now

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19	Is the biomedical waste being sent to an authorized common BMW facility?		No	No biomedical waste is generated now	
20	Does the grantee have an in-house BMW treatment facility?			No biomedical waste is generated now	
	Is the treatment facility own (individual)?		No		
	Is the treatment facility a shared facility in an industrial park?		No		
21	Are lab waste, microbiological waste and chemical liquid waste pre-treated before storing and sending to treatment facilities according to guidelines prescribed in BWM, 2016 regulations?		No	No biomedical waste is generated now	
22	Is the liquid waste checked for active cells before sending to treatment plant?		No	No biomedical waste is generated now	
23	Are necessary waste pre-treatment equipment in place?		No	No biomedical waste is generated now	
	Do the equipment adhere to prescribed norms by State Pollution Control Board (SPCB)?		No		
24	Are chlorinated plastic gloves and bags phased out in the grantee?		No	No biomedical waste is generated now	
25	Are grantee's personnel involved in handling BMW provided with regular training?		No	No biomedical waste is generated now	
26	Are medical examination provided to personnel involved in BMW waste handling and are they provided with relevant immunization like Hepatitis B and Tetanus?		No	No biomedical waste is generated now	
27	Is a daily register for biomedical waste maintained including accident reporting record?		No	No biomedical waste is generated now	
28	Are annual reports on BWM submitted to SPCB as per required form (see Bio-Medical Waste Rules 2016)?		No	No biomedical waste is generated now	
Hazardous Waste (HW)					
29	Is there generation of hazardous waste (as per Hazardous Waste Rules, 2016) in the grantee?		No	Hazardous waste not generated	If Hazardous waste generated it will be managed as per Hazardous Waste Rules, 2016
30	Is there trained staff in the facility to identify and handle hazardous waste?		No	Hazardous waste not generated	
31	Does the grantee have authorization from SPCB for hazardous waste?		No	Hazardous waste not generated	Authorization will be obtained if required

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32	Is there a secure location for storage of HW with proper signage?		No	Hazardous waste not generated	
	Are hazardous waste stored for more than 90 days in the grantee's premises?		No		
33	Is the hazardous being send to an authorized disposal facility or user?			Hazardous waste not generated	
	Is the disposal facility in house?		No		
	Is the disposal facility external/outsourced?		No		
34.	Is a register maintained on production and treatment, and a manifest system followed for transport of hazardous waste from the grantee to treatment facility?		No	Hazardous waste not generated	
E-Waste and Batteries					
35.	Does the grantee generate e-waste, produce or manufacture electrical and electronic equipment?		No	E waste not generated	If E waste generated it will be managed as per E Waste Rules, 2016
36.	Has the grantee obtained SPCB authorization on e-waste?		No	E waste not generated	Authorization will be obtained if required
37.	Does the grantee channelize the e-waste to authorized recycling or disposal facility?		No	E waste not generated	
38.	Does the manufacturing grantee have Extended Producer Responsibility system and EPR-authorization in place?		No	E waste not generated	
39.	Does the grantee practice reduction in the usage of hazardous substances in the manufacture of electrical and electronic equipment and its parts?		No	E waste not generated	
40.	Does the grantee provide detailed information on the constituents of the equipment and their components/spares and declaration of conformation to Reduction in Hazardous Substances in the product user documentation?		No	E waste not generated	
41.	Does the grantee maintain a record of collection, storage, sale and transport of e-waste?		No	E waste not generated	
42.	Does the grantee submit annual reports on e-waste to SPCB?		No	E waste not generated	
43.	Is there accident reporting and records in place?	Yes			
44.	Are PPEs available to staff?		No	E waste not	

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				generated	
45	Is the grantee involved in manufacture of batteries?		No		
46	Does the grantee generate battery waste?		No		
47	Does the grantee deposit the battery waste to registered recycler/dealer/manufacturer/reconditioner/collection center?		No		If Battery waste generated it will be managed as per Battery Rules
48	In case of manufacturing, does the grantee comply to Battery Management Rules 2000 and ensure collection of old batteries?		No		
Community Health and Safety and risk mitigation					
		Yes	No	Details	Proposed Plan
49.	Safety Transportation Management System (for transport Of hazardous material)		No		Will be followed if required
50.	Emergency preparedness and participation of local authorities and potentially affected communities		No		Will be followed if required
Others					
51.	Does the grantee use any radioactive materials (isotopes tracers, radiation equipment, etc)?		No	Radioactive material not involved in our activity	No
	Does the grantee have appropriate radioactive material and waste storage and disposal system in place?		No	Radioactive material not involved in our activity	
	Are radioactive warning signs in place?		No	Radioactive material not involved in our activity	
52	Is the lab/room air regularly checked for microbial contamination?	Yes			Host Institute has the facility as per the requirement
53	Are there any odor control measures in place?	Yes			
54.	Are fume hoods and exhausts regularly checked and maintained?	Yes			Validation done Periodically
55.	Does the grantee use DG set > 15 KVA?	Yes			Already received approval from Kerala Pollution Control Board and noted in consent
	Does the grantee have consent for DG > 15 KVA?	yes			
	Are emissions from boilers and DG sets regularly monitored to be within the prescribed norms?	Yes			
56	Does the grantee have proper disposal process for solid and plastic waste in compliance to Solid Waste Management Rules, 2016 and Plastic Waste Management Rules, 2016?	Yes		solid and plastic waste will be managed as per rules	

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57	Is wastewater treated separately by the grantee? (Liquid waste from laboratory, chemicals, fluids, solvents, medium and cultures, coolants, etc.)	Yes		Host Institute has a Sewage Treatment Plant -50KLV capacity in Animal House	
	Are there sludge management and cut off drains in place for wastewater?	Yes		Sludge removed manually and deep burial is carried out.	
58	Are necessary provisions for noise cancellation in place?	Yes			
59	Are there any settlements, water bodies, cultivated land, or any other eco-sensitive areas near the grantee's premises?	Yes		Waterbody of 1acre is inside the Premises with safety distance of 200m.	
60	Are there any buffers, fire vehicle routes in the grantee's premises?	Yes		Host Institute Building has the fire vehicle routes	

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.