

**INNOVATE IN INDIA FOR INCLUSIVENESS (I 3)**

**ENVIRONMENTAL HEALTH RISK MANAGEMENT PLAN (EHRMP) FORMAT**

<p>(i) Brief description of the proposed activity                  (ii) List of environments related regulatory clearances required for the activity.</p>			
<b>Institutional Arrangement</b>			
		Yes	No
		<b>Details</b>	
		<b>Proposed Plan</b>	
1.	Is there a designated full-time staff for Environment Health and Safety (EHS) issues?	x	
		CCAMP shares it's support staff with NCBS and InStem with which we share a campus. There is a designated lab safety officer as well as doctor on campus during part of the day. There is a 24 hour ambulance on standby for emergencies.	
2.	Does the EHS staff handle the following?		Any other:
	Occupational Health and Safety	X	
	Waste Management	X	
	List of consents and regulatory clearances		X
	Record keeping of accidents and procedures	X	
	EHS trainings for staff	X	
	Environment Management Framework compliance for Innovate in India Project		X
4.	Is there a reporting structure in place regarding EHS issues?	X	
		Describe:	
		In case of accidents and incidents, the staff involved is required to report to the lab manager who keeps a record of it and reports to the safety committee.	
5.	Are regular EHS trainings provided to staff?	X	
		Frequency:	
		Monthly	
<b>General Occupational Health and Safety</b>			
6.	Are there Standard Operating Procedures for accidents, hazards, and other emergencies (chemical spills, heat hazards, fire hazards, radioactive hazards etc.)?	X	
7.	Are the following in place?		
	Chemical spill kits	X	
	Eye wash	X	

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	Shower stations	X			
	First Aid Kit	X			
	Fire Extinguishers	X			
	Register of accidents and injuries	X			
8.	Are proper signage and storage system in place?				
	Display of Material Safety Data Sheet (MSDS) where relevant	X			
	Display of emergency numbers and procedures (Person to Contact, Doctor, Ambulance, Fire Emergency, Police) displayed in all critical places	X			
	Signage across the facility (labs, storage, hazardous areas, etc.)	X			
	Are flammable materials appropriately stored to prevent fire hazards?	X			
9.	Are smoke detectors, fire alarms, automatic safety/shut off systems, overflow preventors, etc. in place and regularly maintained?	X	List:		Smoke detectors in every room, centralized fire alarm for every floor, are present and maintained. Automatic safety systems are present in the requisite equipments.
10.	Are there control measures for VOC, air emissions, high operating temperatures, pathogens/vectors etc. in place?	X	List:		Filters and scrubbers to remove pathogens and particulates present in the required areas. VOC and other air emissions are extremely minimal and exhausted through a fume hood.
11.	Are regular mock drills conducted for emergency preparedness and safety?	X	Frequency (type wise):		Twice a year
12.	Are staff provided with OHS training?	X	Describe:		Campus safety program dealing with all aspects of safety and reporting is provided every month. This includes lab safety, chemical safety, pathogen safety, and fire safety. This does not include radiation safety, which is only provided on request to staff who will be working in the radiation labs.
<b>Biomedical Waste (BMW)</b>					
13.	Is there generation of biomedical waste (as described in Bio-Medical Waste Management Rules, 2016) in the grantee?		X	If Yes, provide a list of biomedical waste produced in the facility  If No, provide a list of all waste produced in the facility.	Electronic waste, and paper waste (recycled)
14.	Is there trained staff to handle biomedical waste in the grantee?		X		Not required as no biomedical waste will be generated.

15.	Has the grantee obtained authorization from State Pollution Control Board /Pollution Control Committee?	x			Karnataka state pollution control board authorization for the waste management in our campus is attached.
16.	Is the biomedical waste segregated at point of generation in the facility and stored in suitable containers?	X	Yellow		Not applicable as there is no biomedical waste generated in the facility.
			Red		
			White		
			Blue		
17.	Is the bar code system for the segregated waste in place?	x			

18.	Is the biomedical waste being sent to an <b>authorized</b> common BMW facility?		x	Name and address of CBMWF:  Distance from facility:  Frequency and Mode of transport:  Who transports?	Not applicable as there is no biomedical waste generated in the facility.
19.	Does the grantee have an in-house BMW treatment facility?  <i>Is the treatment facility own (individual)?</i>  <i>Is the treatment facility a shared facility in an industrial park?</i>		x	Reason:  Authorization:  Distance of nearest CBWM from facility:  Types of treatment:	Not applicable as there is no biomedical waste generated in the facility.
20.	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?		X	Types of treatment:	Not applicable as there is no lab waste generated in the facility.
21.	Is the liquid waste checked for active cells before sending to treatment plant?		X		Not applicable as there is no microbiological or tissue culture waste generated in the facility.
22.	Are necessary waste pre-treatment equipment in place?	X		List of equipment (autoclaves, shredders, incinerators, etc.):	Shredders will be purchased as part of this grant.
	Do the equipment adhere to prescribed norms by State Pollution Control Board (SPCB)?	X		Details of waste pre-treatment:	Paper waste will be shredded before disposal to recyclers to ensure confidentiality of information.
23.	Are non-chlorinated plastic gloves and bags phased out in the grantee?	X			Not used in the facility.
24.	Are grantee's personnel involved in handling BMW provided with regular training?		X	Frequency:  Trainer:	Not applicable as there is no biomedical waste generated in the facility.

25.	Are medical examination provided to personnel involved in BMW waste handling and are they provided with relevant immunization like Hepatitis B and Tetanus?	x	Frequency of medical examination:	Not applicable as there is no biomedical waste generated in the facility.
26.	Is a daily register for biomedical waste maintained including accident reporting record?	x		Not applicable as there is no biomedical waste generated in the facility.
27.	Are annual reports on BWM submitted to SPCB as per required form (see Bio-Medical Waste Rules 2016)?	x		
<b>Hazardous Waste (HW)</b>				
28.	Is there generation of hazardous waste (as per Hazardous Waste Rules, 2016) in the grantee?	X	If Yes, provide a list of hazardous waste produced in the facility  If No, provide a list of all waste produced in the facility.	Paper and electronic waste (e-waste) will be generated.
29.	Is there trained staff in the facility to identify and handle hazardous waste?	X		Not applicable as there is no hazardous waste generated in the facility.
30.	Does the grantee have authorization from SPCB for hazardous waste?	X		Not applicable as there is no hazardous waste generated in the facility.
31.	Is there a secure location for storage of HW with proper signage?	X	Describe how each item is stored – platforms, distances from critical installations/movement areas, spill collectors, gas escape facility, etc.	Not applicable as there is no hazardous waste generated in the facility.
	Are hazardous waste stored for more than 90 days in the grantee's premises?	X		
33.	Is the hazardous being send to an authorized disposal facility or user?	X	Name and address of facility:	Not applicable as there is no hazardous waste generated in the facility.
	Is the disposal facility in house?	X		
	Is the disposal facility external/outsourced?	X		
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?	X		Not applicable as there is no hazardous waste generated in the facility.
<b>E-Waste and Batteries</b>				

35.	Does the grantee generate e-waste, produce or manufacture electrical and electronic equipment?	X		Computers, monitors, printers, toner cartridges and other electronic equipment will be generated as waste over time.
36.	Has the grantee obtained SPCB authorization on e-waste?	X		E-waste is collected and discarded through a common mechanism in campus. Waste generated by the facility will be passed on to the campus waste management team and then discarded through appropriate e-waste processing vendors.  Karnataka state pollution control board authorization for the waste management in our campus is attached.
37.	Does the grantee channelize the e-waste to authorized recycling or disposal facility?	X	Name and address of disposal facility/recycler:  Inhouse or outsourced Facility:  Describe:	Karnataka state pollution control board authorization for the waste management in our campus is attached.  E-waste is handled by the campus waste management team. The waste is sent to authorized disposal vendors on a contract basis and changes from time to time on the basis of cost in compliance with government regulatory norms.  Not applicable as we are not a manufacturing grantee.
38.	Does the manufacturing grantee have Extended Producer Responsibility system and EPR-authorization in place?	X		Not applicable as we are not a manufacturing grantee.
39.	Does the grantee practice reduction in the usage of hazardous substances in the manufacture of electrical and electronic equipment and its parts?	X		Not applicable as we are not a manufacturing grantee.
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?	X		Not applicable as we are not a manufacturing grantee.
40.	Does the grantee maintain a record of collection, storage, sale and transport of e-waste?	X		E-waste is handled by the campus waste management team. A comprehensive record is kept by the team on all e-waste.
41.	Does the grantee submit annual reports on e-waste to SPCB?	X		Not applicable as we are not a manufacturing grantee.
42.	Is there accident reporting and records in place?	X		In case of accidents and incidents, the staff involved is required to report to the lab manager who keeps a record of it and reports to the safety committee.
43.	Are PPEs available to staff?	X		No PPEs are required for the facility. PPE is provided in case

					the staff are required to access other facilities in campus which require them.
44.	Is the grantee involved in manufacture of batteries?		X		We are not a manufacturing grantee.
45.	Does the grantee generate battery waste?	X			In small quantities from the batteries of laptops and other small battery powered equipment. These are disposed of by the waste management team according to e-waste norms.
46.	Does the grantee deposit the battery waste to <b>registered</b> recycler/dealer/manufacturer/reconditioner/collection center?	X		Name and address of battery waste receiving entity:	The waste is sent to authorized disposal vendors on a contract basis and changes from time to time on the basis of cost in compliance with government regulatory norms.
47.	In case of manufacturing, does the grantee comply to Battery Management Rules 2000 and ensure collection of old batteries?		X		Not applicable as we are not a manufacturing grantee.
<b>Other</b>					

48.	Does the grantee use any radioactive materials (isotopes tracers, radiation equipment, etc)?	X		No radioactives used in our facility.
	Does the grantee have appropriate radioactive material and waste storage and disposal system in place?	X	Describe:	Not applicable as we do not deal with radioactive substances.
	Are radioactive warning signs in place?	X		Not applicable as we do not deal with radioactive substances.
49.	Is the lab/room air regularly checked for microbial contamination?	X		The rooms are checked periodically for microbial contamination, <u>at least once a year.</u>
50.	Are there any odor control measures in place?	X		No harsh odors are used and hence these are not required
51.	Are fume hoods and exhausts regularly checked and maintained?	X		Fume hoods and exhausts are regularly checked and maintained under annual maintenance contracts with the manufacturer or other vendors.
52.	Does the grantee use DG sets > 15 KVA?	X		CCAMP has ordered DG sets > 15 KVA for power emission from the building regular
	Does the grantee have consent for DG > 15 KVA?	X		under to remain within the prescribed norms. CCAMP does not have boilers.
	Are emissions from boilers and DG sets regularly monitored to be within the prescribed norms?	X		
53.	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?	X	Describe	Waste is collected and discarded through a common mechanism in campus. Waste generated by the facility will be passed on to the campus waste management team and then discarded through appropriate e-waste processing vendors.  Karnataka state pollution control board authorization for the waste management in our campus is attached.
54.	Is wastewater treated separately by the grantee? (Liquid waste from laboratory, chemicals, fluids, solvents, medium and cultures, coolants, etc.)	X	Types of wastewater:  Treatment of wastewater:  Chemical management in wastewater treatment plants:	Only normal office waste water (toilets and wash basins) generated by the grantee facility.  Waste water is collected and processed through a common water treatment facility on campus.  After appropriate holding tanks and scrubbing procedures, the water is purified, tested and used to water plants and as groundwater replenishment mechanism.
	Are there sludge management and cut off drains in place for wastewater?	X		No waste water is released into the city sewerage system. All water is processed through the water treatment facility.
55.	Are necessary provisions for noise cancellation in place?	X	Describe:	Appropriate engineering solutions have been implemented to limit noise. Noise producing equipment are physically separated by barriers to reduce the noise in the working areas.



56.	Are there any settlements, water bodies, cultivated land, or any other eco-sensitive areas near the grantee's premises?	X		Describe:	CCAMP is bordering on the GKVK biodiversity heritage site.
57.	Are there any buffers, fire vehicle routes in the grantee's premises?	X		Distance from premises:	No new construction is planned for this facility. CCAMP has a 5m buffer road around the building for fire vehicle access.

