

## Environmental Health Risk Management Plan (EHRMP)

### Pondicherry Institute of Medical Sciences

Proposal entitled **Community based surveillance for Dengue / DSS at the Urban and Rural Health Training Centres and Govt. Primary Health Centres in the field practice areas of Pondicherry Institute of Medical Sciences, Puducherry**

#### **Institutional Arrangements**

(i) Brief description of the proposed activity: The required biomedical specimens in the proposed research project of setting up a new DHS/DSS site would be collected and disposed as per the risk management plan described below					
(ii) List of environments related regulatory clearances required for the activity. The necessary environmental approval from the State Pollution Control Board (Puducherry) as applicable to the proposed research project is within the framework / guidelines / clearance given to Pondicherry Institute of Medical Sciences.					
<b>Institutional Arrangement</b>					
		Yes	No	Details	Proposed Plan
1.	Is there a designated full-time staff for Environment Health and Safety (EHS) issues?	Yes		The institute complies with the norms and requirements of the Pollution Control Committee	The Institute plans to coordinate with the Pollution Control and Engineering department of the Pondicherry University to make the institute a model eco-campus.
2.	Does the EHS staff handle the following?			Any other:	As per the Institute's guidelines for Environment Health and Safety (EHS).
	Occupational Health and Safety	Yes			
	Waste Management	Yes			
	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		The project site will follow the NBM BIRAC Environment Management Framework	
3.	Is there a reporting structure in place regarding EHS issues?	Yes		Describe: As per NABH guidelines	Will be regularly followed.
4.	Are regular EHS trainings provided to staff?	Yes		Frequency: Once in 6 months	This will be continued.
5.	Institutional Bio-Safety Committee (IBSC)	Yes		As per NABH guidelines	
6.	Ethics Committee (EC)	Yes		As per CDSCO/GoI guidelines	Meetings and reviews will be scheduled as and when required as per CDSCO/GoI

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				guidelines.
<b>General Occupational Health and Safety</b>				
7.	Are there Standard Operating Procedures for accidents, hazards, and other emergencies (chemical spills, heat hazards, fire hazards, radioactive hazards etc.)?	Yes		<p>1. Pondicherry Institute of Medical Sciences has a Hospital Infection Control Committee which deals with the occupational Hazards and follows the approved Institutional Protocols.</p> <p>2. Periodical inspections are and will be carried out to monitor the radiation hazard at the diagnostic facilities and appropriate Personal Protective Equipments are being used.</p>
8.	Are the following in place?			Appropriate SOPs are in place to deal with such emergencies
	Chemical spill kits	Yes		
	Eye wash	Yes		
	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?	Yes		<p>Proper signage boards are in place in the required areas.</p> <p>These would be regularly updated/replaced.</p>
	Display of Material Safety Data Sheet (MSDS) where relevant	Yes		
	Display of emergency numbers and procedures (Person to Contact, Doctor, Ambulance, Fire Emergency, Police) displayed in all critical places	Yes		
	Signage across the facility (labs, storage, hazardous areas, etc.)	Yes		
	Are flammable materials appropriately stored to prevent fire hazards?	Yes		
10.	Are smoke detectors, fire alarms, automatic safety/shutoff systems, overflow preventors, etc. in place and regularly maintained?	Yes		<p>List:</p> <p>Smoke detectors</p> <p>Fire alarms</p> <p>These would be regularly maintained.</p>
11.	Are there control measures for VOC, air emissions, high operating temperatures, pathogens/vectors etc. in place?	Yes		<p>List:</p> <p>Vector control measures</p> <p>This would be reviewed periodically.</p>
12.	Are regular mock drills conducted for emergency preparedness and safety?	Yes		<p>Frequency (type wise): Once in 6 months</p> <p>This will be followed as per the schedule prepared by the Security Office.</p>
13.	Are staff provided with OHS training?	Yes		<p>Describe: The OHS training is being conducted periodically by</p> <p>This will be regularly updated through Continuing Medical</p>

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				Hospital Infection Control Committee (HICC)	Education.	
<b>Biomedical Waste (BMW)</b>						
14.	Is there generation of biomedical waste (as described in Bio-Medical Waste Management Rules, 2016) in the grantee?	Yes		<p>If Yes, provide a list of biomedical waste produced in the facility</p> <p>The following categories of Biomedical Wastes are produced in the facility – Anatomical waste, Animal waste, Microbiological waste, waste sharps, discarded medicines, soiled wastes, solid wastes, liquid wastes, chemical wastes etc.</p>		
15.	Is there trained staff to handle biomedical waste in the grantee?	Yes		Hospital Infection Control Committee (HICC) is also responsible for this training.	It will be carried on in future.	
16.	Has the grantee obtained authorization from State Pollution Control Board /Pollution Control Committee?	Yes		Pollution Control Committee Certificate No.18/PPCC/BMW/AUTHO/JSA(PPCC)/2019/1322	Renewal will be done as per timelines.	
17.	Is the biomedical waste segregated at	Yes		Yellow	Yes	As per Bio-Medical

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	point of generation in the facility and stored in suitable containers?			Red White Blue	Yes Yes Yes	Waste Management (Amendment) Rules, 2018
18.	Is the bar code system for the segregated waste in place?	Yes		Bar coding for the segregated waste is according to vendor agreement.		Bar coding will be regularly updated as per policy guidelines.
19.	Is the biomedical waste being sent to an authorized common BMW facility?	Yes		Name and address of CBMWF:  Pondicherry Solid Waste Management Company Pvt Ltd., Thuthipet, Villianur, Pondicherry-605502  Distance from facility: 25 kms Frequency and Mode of transport: Daily/ By truck  Who transports? CBMWF		
20.	Does the grantee have an in-house BMW treatment facility?		No	Reason:  Authorization:  Distance of nearest CBWM from facility:  Types of treatment:		It will be taken care by the outsourced agency, Pondicherry Solid Waste Management Pvt. Ltd. Company.
	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	Yes		Types of treatment:		Compliance calendar shall be maintained.

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	storing and sending to treatment facilities according to guidelines prescribed in BWM, 2016 regulations?			Autoclave and decontamination	
22.	Is the liquid waste checked for active cells before sending to treatment plant?		No		
23.	Are necessary waste pre-treatment equipment in place?	Yes		List of equipment (autoclaves, shredders, incinerators, etc.): Autoclave  Details of waste pre-treatment:	Regular monitoring shall be undertaken
	Do the equipment adhere to prescribed norms by State Pollution Control Board (SPCB)?	Yes			
24.	Are chlorinated plastic gloves and bags phased out in the grantee?	Yes			
25.	Are grantee's personnel involved in handling BMW provided with regular training?	Yes		Frequency: Once in 6 months  Trainer: HICC team	Requirement as per NABH accreditation.
26.	Are medical examination provided to personnel involved in BMW waste handling and are they provided with relevant immunization like Hepatitis B and Tetanus?	Yes		Frequency of medical examination: Annual Health Checkup done	This practice will be checked periodically
27.	Is a daily register for biomedical waste maintained including accident reporting record?	Yes		Register is maintained as per the SOP.	This practice would be followed.
28.	Are annual reports on BWM submitted to SPCB as per required form (see Bio-Medical Waste Rules 2016)?	Yes		As per the requirements of the SPCB.	This practice would be followed.
<b>Hazardous Waste (HW)</b>					
29.	Is there generation of hazardous waste (as per Hazardous Waste Rules, 2016) in the grantee?		No	If Yes, provide a list of hazardous waste produced in the facility  If No, provide a list of all waste produced in the facility.	The following categories of Biomedical Wastes are produced in the facility – Anatomical waste, Animal waste, Microbiological waste, waste sharps, discarded medicines, soiled wastes, solid wastes, liquid wastes, chemical wastes etc

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30.	Is there trained staff in the facility to identify and handle hazardous waste?		No		PIMS may appoint designated personnel as and when need arises for the Project.
31.	Does the grantee have authorization from SPCB for hazardous waste?		No		If it is required in the future it can be implemented in consultation with BIRAC
32.	Is there a secure location for storage of HW with proper signage?		No	Describe how each item is stored – platforms, distances from critical installations/movement areas, spill collectors, gas escape facility, etc.	
	Are hazardous waste stored for more than 90 days in the grantee's premises?		No		
<b>E-Waste and Batteries</b>					
35.	Does the grantee generate e-waste, produce or manufacture electrical and electronic equipment?	Yes		Minimal e-waste is generated	The very minimal amount of e-waste generated if required PIMS can implement certain process for it in consultation with BIRAC.
36.	Has the grantee obtained SPCB authorization on e-waste?		No		
37.	Does the grantee channelize the e-waste to <b>authorized</b> recycling or disposal facility?		No	Name and address of disposal facility/recycler:  Inhouse or outsourced Facility:	
41.	Does the grantee maintain a record of collection, storage, sale and transport of e-waste?	Yes			
42.	Does the grantee submit annual reports on e-waste to SPCB?		No		
43.	Is there accident reporting and records in place?	Yes			
44.	Are PPEs available to staff?	Yes			

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45.	Is the grantee involved in manufacture of batteries?		No		
46.	Does the grantee generate battery waste?	Yes			
47.	Does the grantee deposit the battery waste to <b>registered</b> recycler/dealer/manufacturer/reconditioner/collection center?		No	Name and address of battery waste receiving entity:	
<b>Community Health and Safety and risk mitigation</b>					
49.	Safety Transportation Management System (for transport of hazardous material)	Yes		Transportation is done by the government authorized common BMW facility	This contract will be renewed annually through a Memorandum of Understanding.
50.	Emergency preparedness and participation of local authorities and potentially affected communities	Yes		Co-ordination meetings with the local community and state health authorities is regularly conducted	The team of investigators would continue to work with the disaster preparedness plan of the locality.
<b>Other</b>					
52.	Is the lab/room air regularly checked for microbial contamination?	Yes		Monthly surveillance	As per Hospital Infection control policy
53.	Are there any odor control measures in place?	Yes		Routine monitoring by the housekeeping department.	
54.	Are fume hoods and exhausts regularly checked and maintained?	Yes		Regularly maintained by the Maintenance Engineering department.	
55.	Does the grantee use DG set > 15 KVA?	Yes		The Electrical Engineering department monitors and maintains it.	
	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		Describe: Green wastes disposed for composting. Other solid wastes collected by Municipality	This will be routinely monitored.

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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		Types of wastewater: Sewage  Treatment of wastewater: Sewage Treatment Plant is in place.  Chemical management in wastewater treatment plants: Treated water is certified as safe and used in gardens	
	Are there sludge management and cut off drains in place for wastewater?	Yes		Regular maintenance done by Civil Engineering department.	
58.	Are necessary provisions for noise cancellation in place?	Yes		Describe: Vehicle drivers are discouraged from honking inside the campus. Campus is located 1km away from the main road.	
59.	Are there any settlements, water bodies, cultivated land, or any other eco-sensitive areas near the grantee's premises?	Yes		Describe: Cultivable land present at a distance of 1kilometer from the campus.  Distance from premises:	
60.	Are there any buffers, fire vehicle routes in the grantee's premises?	Yes		The fire station is located at 2 kilometers distance	

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.