

**Environmental and Health Risk Management Plan (EHRMP)**

**Andhra Pradesh Med Tech Zone**

**Proposal entitled:** Covid MedTech Manufacturing & Development Strategy CoMMAND Strategy

i) Brief description of the proposed activity: Assembly and Manufacturing of Medical Devices / Equipment ii) List of environments related regulatory clearances required for the activity. Pollution Control Board Clearance Certificate and Environmental Clearance Certificate Obtained.					
		<b>Yes</b>	<b>No</b>	<b>Details</b>	<b>Proposed Plan</b>
<b>Institutional Arrangement</b>					
1.	Is there a designated full-time staff for Environment Health and Safety (EHS) issues?	Y		Designated full time staff for Environment Health and Safety (EHS) is available.  Two Technical Assistants, One Safety Officer, and One Head (QC)	Inspection and Monitoring in every month will be conducted
2.	Does the EHS staff handle the following?			EHS staff handle all the mentioned responsibilities	EHS staff will handle all the mentioned responsibilities
	Occupational Health and Safety	Y			
	Waste Management	Y			
	List of consents and regulatory clearances	Y			
	Record keeping of accidents and procedures	Y			
	EHS trainings for staff	Y			
	Environment Management Framework compliance for Innovate in India Project	Y		Environment Management Framework compliance for Innovate in India Project is being followed	Environment Management Framework compliance for Innovate in India Project will be followed through out the project
3.	Is there a reporting structure in place regarding EHS issues?	Y		Reporting structure in place regarding EHS issues	Will continue to follow and maintain the reporting structure of EHS.
4.	Are regular EHS trainings provided to staff?	Y		Frequency: Once in every quarter	EHS trainings

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					programs will be conducted on regular basis.
5.	Institutional Bio-Safety Committee (IBSC)		N		
6.	Ethics Committee (EC)		N		
<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.)?	Y		Standard Operating Procedures are in place	SOPs and protocols will be maintained for any new activity included in the work
8.	Are the following in place?	Y		Mentioned equipment's & systems are in place	Equipment's will be checked,monitored, replaced and maintained well through out the project
	Chemical spill kits	Y			
	Eye wash	Y			
	Shower stations	Y			
	First Aid Kit	Y			
	Fire Extinguishers	Y			
	Register of accidents and injuries	Y			
9.	Are proper signage and storage system in place?	Y		All the mentioned Systems are available and in place	Proper equipment will be in place and stock will be maintained as per the guidelines for Environment Health and Safety (EHS) enacted by the legislature.
	Display of Material Safety Data Sheet (MSDS) where relevant	Y			
	Display of emergency numbers and procedures (Person to Contact, Doctor, Ambulance, Fire Emergency, Police) displayed in all critical places	Y			
	Signage across the facility (labs, storage, hazardous areas, etc.)	Y			
	Are flammable materials appropriately stored to prevent fire hazards?	Y			
10.	Are smoke detectors, fire alarms, automatic safety/shutoff systems, overflow preventors, etc. in place and regularly maintained?	Y		smoke detectors, fire alarms, automatic safety/shut off systems are in place and regularly maintained	smoke detectors, fire alarms, automatic safety/shut off systems will be regularly maintained
11.	Are there control measures for VOC, air emissions, high operating temperatures, pathogens/vectors etc. in place?	Y		Control measures for VOC, air emissions, high operating temperatures, pathogens/vectors are in place	Will keep upgrading these measures as and when required.
12.	Are regular mock drills conducted for emergency preparedness and safety?	Y		Frequency (type wise): Every month	regular mock drills will be conducted for

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					emergency preparedness and safety
13.	Are staff provided with OHS training?	Y		OHS training provided to staff	We will provide such training for all staff recruited in the project
<b>Biomedical Waste (BMW)</b>					
14.	Is there generation of biomedical waste (as described in Bio-Medical Waste Management Rules, 2016) in the grantee?	Y		Micro Biological Plates, Cultured Tubes, Left Over Media, Expired Kits.	Any BMW generated will be treated adhering to Bio-Medical Waste Management Rules, 2016.
15.	Is there trained staff to handle biomedical waste in the grantee?	Y		Trained staff available to handle biomedical waste	Regular training and review will be done for the staff involved in this.
16.	Has the grantee obtained authorization from State Pollution Control Board /Pollution Control Committee?	Y		Authorizations obtained	Necessary Authorizations will be taken if required
17.	Is the biomedical waste segregated at point of generation in the facility and stored in suitable containers?	Y		Yellow Red White Blue	This is an ongoing process which will be followed throughout the Project.
18.	Is the bar code system for the segregated waste in place?	Y			Will ensure a proper system is in place adhering to BMW Act during the Project.
19.	Is the biomedical waste being sent to an <b>authorized</b> common BMW facility?	Y		Name and address of CBMWF: Vashishtha Environ Care  Distance from facility: 12 Kms	Biomedical waste will be sent to an <b>authorized</b> common BMW facility throughout the Project.
20.	Does the grantee have an in-house BMW treatment facility?		N	BMW is sent to Authorized vendor .	Will ensure that the contract with the outsourced vendor is renewed within
	Is the treatment facility own (individual)?		N		

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	Is the treatment facility a shared facility in an industrial park?		N		timelines.
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?	Y		Types of treatment: Treated with Hypo Solution and Autoclave	Will be done as per BWM 2016. Compliance calendar shall be maintained.
22.	Is the liquid waste checked for active cells before sending to treatment plant?	Y			Routine checks will be done.
23.	Are necessary waste pre-treatment equipment in place?	Y		List of equipment (autoclaves, shredders, incinerators, etc.): Autoclaves (Make Equitron), Shredders	Regular monitoring shall be done.
	Do the equipment adhere to prescribed norms by State Pollution Control Board (SPCB)?	Y			
24.	Are chlorinated plastic gloves and bags phased out in the grantee?	Y		chlorinated plastic gloves and bags phased out	chlorinated plastic gloves and bags will not be utilized in future also
25.	Are grantee's personnel involved in handling BMW provided with regular training?	Y		Frequency: Quarterly	This will be a regular process during the project.
26.	Are medical examination provided to personnel involved in BMW waste handling and are they provided with relevant immunization like Hepatitis B and Tetanus?	Y		Frequency of medical examination: Quarterly	medical examination will be provided to personnel involved in BMW waste handling and they will be provided with relevant immunization like Hepatitis B and Tetanus quarterly
27.	Is a daily register for biomedical waste maintained including accident reporting record?	Y			This register will be maintained for the entire duration of the Project.
28.	Are annual reports on BWM submitted to SPCB as per required form (see Bio-Medical Waste Rules 2016)?	Y			Timely submission will be done as per PCB norms.

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<b>Hazardous Waste (HW)</b>					
29.	Is there generation of hazardous waste (as per Hazardous Waste Rules, 2016) in the grantee?		N	In our activity we do not generate the Hazardous waste	If case any hazardous waste is generated as per rules it will be followed.
30.	Is there trained staff in the facility to identify and handle hazardous waste?		N	In our activity we do not generate the Hazardous waste	As and when required a separate staff will be recruited and trained to treat and handle the hazardous wastes.
31.	Does the grantee have authorization from SPCB for hazardous waste?		N	In our activity we do not generate the Hazardous waste	Necessary Authorizations will be taken if required.
32.	Is there a secure location for storage of HW with proper signage?		N	In our activity we do not generate the Hazardous waste.	
	Are hazardous waste stored for more than 90 days in the grantee's premises?		N		
33.	Is the hazardous being send to an <b>authorized</b> disposal facility or user?			In our activity we do not generate the Hazardous waste	
	Is the disposal facility in house?		N		
	Is the disposal facility external/outsourced?		N		
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?		N	In our activity we do not generate the Hazardous waste	
<b>E-Waste and Batteries</b>					
35.	Does the grantee generate e-waste, produce or manufacture electrical and electronic equipment?		N	In our activity we do not generate the E-Waste and Batteries	
36.	Has the grantee obtained SPCB authorization on e-waste?		N	In our activity we do not generate the E-Waste and Batteries	Necessary Authorizations will be taken if required.
37.	Does the grantee channelize the e-waste to <b>authorized</b> recycling or disposal facility?		N	In our activity we do not generate the E-Waste and Batteries	As and when the need arises proper system will be put in place during the project.
38.	Does the manufacturing grantee have Extended Producer Responsibility system and EPR-authorization in place?		N	In our activity we do not generate the E-Waste and Batteries	Will Ensure that a proper system is put in place and authorization is taken in case the

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					manufacture is done.
39.	Does the grantee practice reduction in the usage of hazardous substances in the manufacture of electrical and electronic equipment and its parts?		N	In our activity we do not generate the E-Waste and Batteries	Will practice this in case engages in manufacture of electrical and electronic equipment and its parts.
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?		N	In our activity we do not generate the E-Waste and Batteries	Will comply with this requirement as and when required in future during the Project.
41.	Does the grantee maintain a record of collection, storage, sale and transport of e-waste?		N	In our activity we do not generate the E-Waste and Batteries	
42.	Does the grantee submit annual reports on e-waste to SPCB?		N	In our activity we do not generate the E-Waste and Batteries	
43.	Is there accident reporting and records in place?		N	In our activity we do not generate the E-Waste and Batteries	
44.	Are PPEs available to staff?		N	In our activity we do not generate the E-Waste and Batteries	
45.	Is the grantee involved in manufacture of batteries?		N	In our activity we do not generate the E-Waste and Batteries	
46.	Does the grantee generate battery waste?		N	The batteries procured in the early stages of development are within their service life.	As the batteries approach end of life, authorized E-Waste disposal centres will be approached for their disposal. The list of authorized centres will be obtained from Govt.
47.	Does the grantee deposit the battery waste to <b>registered</b> recycler/dealer/manufacturer/reconditioner/collection center?		N	In our activity we do not generate the E-Waste and Batteries	
48.	In case of manufacturing, does the grantee comply to Battery Management Rules 2000 and		N	In our activity we do not generate the E-Waste and Batteries	

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	ensure collection of old batteries?				
<b>Community Health and Safety and risk mitigation</b>					
49.	Safety Transportation Management System (for transport of hazardous material)	Y			
50.	Emergency preparedness and participation of local authorities and potentially affected communities	Y			
<b>Others</b>					
51.	Is the lab/room air regularly checked for microbial contamination?	Y			The will be routinely monitored.
52.	Are there any odor control measures in place?	Y			Periodic cleaning will be done
53.	Are fume hoods and exhausts regularly checked and maintained?	Y			Preventive maintenance plan will be put in place.
54.	Does the grantee use DG set > 15 KVA?	Y			Will ensure maintenance of the DG sets used by the Company during the Project.
	Does the grantee have consent for DG > 15 KVA?	Y			
	Are emissions from boilers and DG sets regularly monitored to be within the prescribed norms?	Y			
55.	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?	Y		Greater Visakhapatnam Municipal Corporation (GVMC) is regularly clearing Dry Waste products	This process will be carried on throughout the project
56.	Is wastewater treated separately by the grantee? (Liquid waste from laboratory, chemicals, fluids, solvents, medium and cultures, coolants, etc.)	Y		AMTZ have its own Sewage Treatment Plant, and Water Treatment Plant. after treatment it is being used for Green (Land Scaping)	This treatment shall be maintained with proper checks and balances.
	Are there sludge management and cut off drains in place for wastewater?	Y			Will ensure that they are maintained throughout to treat the wastewater.
57.	Are necessary provisions for noise cancellation in place?	Y		Necessary equipment's has been provided to designated staff and workers employed in this area.	Will keep reviewing the noise generated and cap them according to the existing

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					cancellation provisions.
58.	Are there any settlements, water bodies, cultivated land, or any other eco-sensitive areas near the grantee's premises?		N		
59.	Are there any buffers, fire vehicle routes in the grantee's premises?	Y			Will ensure that the premise is well equipped with these essential services.
<b>COVID Precautions &amp; Guidelines Implementation</b>					
60.	Guidelines of CPCB/SPCB/GoI for Handling, Treatment, and Disposal of COVID Waste Generated is whether being followed?		N	COVID waste is not generated in our activity	
61.	SOP on preventive measures to contain spread of COVID-19 issued by ICMR/GoI from time to time is whether being followed?	Y		Taking the preventive measures	

**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.**