

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

**JC OrthoHeal Private Limited**

**Proposal entitled:** Evaluation of FlexiOH in emergency settings

**1. Institutional Arrangements**

<p>(i) Brief description of the proposed activity: We have manufacturing unit where we do Liquid silicone rubber injection moulding, assembling of parts i.e. glue pasting and filling of resin inside silicone shell. After QC we do sealing and packaging of finished goods.</p> <p>(ii) List of environments related regulatory clearances required for the activity. – we will obtain all the applicable environment permissions as per rules</p>				
Institutional Arrangement				
Area of Risk	Yes	No	Details	Proposed Plan
1. Is there a designated full-time staff for Environment Health and Safety (EHS) issues?		<input checked="" type="checkbox"/>	As of now Environment health and safety tasks has been divided to team leaders.	We have plan to hire designated person for health and safety issue
2. Does the EHS staff handle the following?			We have designed each manufacturing process considering employee safety, environmental safety. i.e. before executing any new manufacturing process we duly train engaged staff to execute in safe method, use of safety equipment and keep support in standby while executing high risk activity (for example changing mould or machine maintenance)	The concerned staff will be trained as per the Environment Health and Safety (EHS) Rules.
Occupational Health and Safety	<input checked="" type="checkbox"/>			
Waste Management	<input checked="" type="checkbox"/>			
List of consents and regulatory clearances				
Record keeping of accidents and procedures	<input checked="" type="checkbox"/>			
EHS trainings for staff	<input checked="" type="checkbox"/>			
Environment Management Framework compliance for Innovate in India Project		<input checked="" type="checkbox"/>		We will comply to Environment Management Framework compliance for Innovate in India Project
3. Is there a reporting structure in place regarding EHS issues?		<input checked="" type="checkbox"/>	Till now we were establishing manufacturing process,	Once process is put in place we will go for Standard documentation and reporting structure for the same.
4. Are regular EHS trainings provided to staff?	<input checked="" type="checkbox"/>		Yes, we do before establishing new method/process of	This will be regularly followed by ensuring

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				manufacturing. Apart from that we regularly supervise process to ensure safety measures taken by labors or not. Frequency: one thorough demonstration and training given for standard safety measures Quarterly , If any new Team member or worker is replaced then duty is allotted after 1 week observation is done.	adherence to the requirements.
<b>General Occupational Health and Safety</b>					
	<b>Area of Risk</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>	<b>Proposed Plan</b>
5.	Are there Standard Operating Procedures for accidents, hazards, and other emergencies (chemical spills, heat hazards, fire hazards, radioactive hazards etc.)?	<input checked="" type="checkbox"/>		We have some standard process established while others we are in process.	Display of Procedures at prominent places in the site will be ensured.
6.	Are the following in place?			Designated place has been mentioned and marked for all the things as per ISO norms.	Proper equipment will be in place and stock will be maintained as per the Institute's guidelines for Environment Health and Safety (EHS).
	Chemical spill kits		<input checked="" type="checkbox"/>		
	Eye wash		<input checked="" type="checkbox"/>		
	Shower stations		<input checked="" type="checkbox"/>		
	First Aid Kit	<input checked="" type="checkbox"/>			
	Fire Extinguishers	<input checked="" type="checkbox"/>			
	Register of accidents and injuries	<input checked="" type="checkbox"/>			
7.	Are proper signage and storage system in place?			All procedural SOPs are available for the desired requirements.	These would be regularly updated/replaced while carrying out maintenance.
	Display of Material Safety Data Sheet (MSDS) where relevant	<input checked="" type="checkbox"/>			
	Display of emergency numbers and procedures (Person to Contact, Doctor, Ambulance, Fire Emergency, Police) displayed in all critical places	<input checked="" type="checkbox"/>			
	Signage across the facility (labs, storage, hazardous areas, etc.)	<input checked="" type="checkbox"/>			
	Are flammable materials appropriately stored to prevent fire hazards?	<input checked="" type="checkbox"/>			
8.	Are smoke detectors, fire alarms, automatic safety/shut off systems, overflow preventers, etc. in place and regularly maintained?	<input checked="" type="checkbox"/>		We have standard process to shut off and on in proper sequel to prevent any accidents.	These would be regularly maintained.
9.	Are there control measures for VOC, air emissions, high operating temperatures, pathogens/vectors etc. in place?		<input checked="" type="checkbox"/>	We are not generating VOC, air emissions, high operating temperatures, pathogens/vectors etc so this is not applicable	
10.	Are regular mock drills conducted for emergency preparedness and safety?		<input checked="" type="checkbox"/>		This facility will be prepared and schedule mock drills will be

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					monitored by an appointed officer.
11.	Are staff provided with OHS training?	<input checked="" type="checkbox"/>		We provide task specific safety measures to executing person	A proper process of more formalized way for training will be put in place.
<b>Biomedical Waste (BMW)</b>					
	<b>Area of Risk</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>	<b>Proposed Plan</b>
12.	Is there generation of biomedical waste (as described in Bio-Medical Waste Management Rules, 2016) in the grantee?		<input checked="" type="checkbox"/>	<p>1. Waste silicone rubber, cured silicone rubber produced during moulding process. We keep it stored and sell it to recycling agency who can sell it to other rubber industries. Waste production is less than 1%</p> <p>2. Waste Resin – is photo curable resin material that we used inside FlexiOH, waste resin is not suitable for FlexiOH use but can be use for adhesive purpose. So we are storing it if we find other industry interested to purchase and wastage is very less (&lt;0.25%)</p>	Any BMW generated will be treated adhering to Bio-Medical Waste Management Rules, 2016.
13.	Is there trained staff to handle biomedical waste in the grantee?		<input checked="" type="checkbox"/>	No Biomedical Waste is generated and so no specific training is given	Will plan for the training as and when needed during the ongoing Project.
14.	Has the grantee obtained authorization from State Pollution Control Board /Pollution Control Committee?		<input checked="" type="checkbox"/>	We are not generating any bio medical waste so this is not applicable to us.	Will keep updating about the status and seek approvals of the necessary authorities as and when required.

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15.	Is the biomedical waste segregated at point of generation in the facility and stored in suitable containers?		<input checked="" type="checkbox"/>	Yes, we keep all waste which can be reused or recycled, in container and designated space.	This is an ongoing process which will be followed throughout the Project.
16.	Is the bar code system for the segregated waste in place?		<input checked="" type="checkbox"/>	We are not generating any bio medical waste so this is not applicable to us	Will ensure a proper system is in place adhering to BMW Act during the Project if needed.
17.	Is the biomedical waste being sent to an <b>authorized</b> common BMW facility?		<input checked="" type="checkbox"/>	We do not generate biomedical waste	Will propose a plan and provide a facility if needed during the Project.
18.	Does the grantee have an in-house BMW treatment facility?		<input checked="" type="checkbox"/>	We do not generate biomedical waste	Will ensure a proper system is in place adhering to BMW Act during the Project if needed.
	Is the treatment facility own (individual)?		<input checked="" type="checkbox"/>		
	Is the treatment facility a shared facility in an industrial park?		<input checked="" type="checkbox"/>		
19	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?		<input checked="" type="checkbox"/>	We do not generate biomedical waste	Will ensure compliance of the BMW, 2016 Regulations as and when required.
20.	Is the liquid waste checked for active cells before sending to treatment plant?		<input checked="" type="checkbox"/>	We do not generate biomedical waste	
21.	Are necessary waste pre-treatment equipment in place?		<input checked="" type="checkbox"/>	We do not generate biomedical waste.	Will adhere to the prescribed norms by State Pollution Control Board wherever required.
	Do the equipment adhere to prescribed norms by State Pollution Control Board (SPCB)?		<input checked="" type="checkbox"/>		
22.	Are non-chlorinated plastic gloves and bags phased out in the grantee?	<input checked="" type="checkbox"/>			
23.	Are grantee's personnel involved in handling BMW provided with regular training?		<input checked="" type="checkbox"/>	We do not generate biomedical waste	

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24.	Are medical examination provided to personnel involved in BMW waste handling and are they provided with relevant immunization like Hepatitis B and Tetanus?		<input checked="" type="checkbox"/>	Given that we do not produce BMW, we do not provide these facilities.	Will ensure that this is being provided to the person responsible for handling the BMW as and when employed during the Project.
25.	Is a daily register for biomedical waste maintained including accident reporting record?		<input checked="" type="checkbox"/>		In case the need arises, we will maintain the record.
26.	Are annual reports on BWM submitted to SPCB as per required form (see Bio-Medical Waste Rules 2016)?		<input checked="" type="checkbox"/>		Will adhere to the requirement of SPCB if needed in future.

**Hazardous Waste (HW)**

	Area of Risk	Yes	No	Details	Proposed Plan
27.	Is there generation of hazardous waste (as per Hazardous Waste Rules, 2016) in the grantee?		<input checked="" type="checkbox"/>	No any hazardous waste generated from manufacturing process	If case any hazardous waste is generated as per rules it will be followed.
28.	Is there trained staff in the facility to identify and handle hazardous waste?	<input checked="" type="checkbox"/>		We have trained staff to standard material handling process.	This training shall be given to the respective staff specifically appointed to carry out this activity.
29.	Is the hazardous being send to an <b>authorized</b> disposal facility or user?		<input checked="" type="checkbox"/>	We have outsourced regular maintenance of equipment's i.e. air compressor, Molding machine, if any kind of waste generated from that , shall be taken care by maintainance agency.	Timely renewals of the existing contract with the agency will be done.
	Is the disposal facility in house?		<input checked="" type="checkbox"/>		
	Is the disposal facility external/outsourced?	<input checked="" type="checkbox"/>			

**E-Waste and Batteries**

	Area of Risk	Yes	No	Details	Proposed Plan
31.	Does the grantee generate e-waste, produce or manufacture electrical and electronic equipment?		<input checked="" type="checkbox"/>	We have assembling for component and circuits which are manufactured by our vendors. We do not have any process in which E-waste is generated. As of now we do not dispose any faulty equipment or returned equipment that is	We will dispose it to our Vadodara municipal corporation designated facility for e-waste disposal.

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				in non-working condition, in future we will dispose e waste to our Vadodara municipal corporation collecting e waste in smart city project designated facility for e-waste disposal.	
32.	Has the grantee obtained SPCB authorization on e-waste?		<input checked="" type="checkbox"/>	Our facility will not generate e waste because we are not manufacturing electronic components	If any permission required in this will be obtained
33.	Does the grantee channelize the e-waste to <b>authorized</b> recycling or disposal facility?	<input checked="" type="checkbox"/>		Vadodara Manipal corporation has e-waste management system, we can segregate and handover e waste to day to day collection system.	This process will be followed by the grantee throughout the Project.
34.	Does the manufacturing grantee have Extended Producer Responsibility system and EPR-authorization in place?		<input checked="" type="checkbox"/>		
35.	Does the grantee practice reduction in the usage of hazardous substances in the manufacture of electrical and electronic equipment and its parts?	<input checked="" type="checkbox"/>		We have integrated only RoHS compliant components in our electronics system.	Will continue to maintain and follow this throughout the Project.
36.	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?		<input checked="" type="checkbox"/>	Our facility will not generate e waste because we are not manufacturing electronic components	
37.	Does the grantee maintain a record of collection, storage, sale and transport of e-waste?		<input checked="" type="checkbox"/>	We will maintain the record once the e waste is being generated	This is an ongoing process and will be carried on throughout the Project.
38.	Does the grantee submit annual reports on e-waste to SPCB?		<input checked="" type="checkbox"/>	Our facility will not generate e waste because we are not manufacturing electronic components	
39.	Is there accident reporting and records in place?	<input checked="" type="checkbox"/>		We have event register to record accidental events.	Accident reporting and recording mechanism will be reviewed and maintained.
40.	Are PPEs available to staff?	<input checked="" type="checkbox"/>		We have provided appropriate PPE as per process.	The stock status of PPE will be regularly monitored and procurement will be

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					done in time to avoid any situation of stock out.
41.	Does the grantee generate battery waste?	<input checked="" type="checkbox"/>		Old batteries from UPS system may be generated	
42.	Does the grantee deposit the battery waste to <b>registered</b> recycler/dealer/manufacturer/ re conditioner /collection center?	<input checked="" type="checkbox"/>		The old batteries will be taken back by the engaged agency	As of now we do not have any battery waste form our electronics devices, but in future if waste is generated, we will dispose it to registered recycler
<b>Other</b>					
	<b>Area of Risk</b>	<b>Yes</b>	<b>No</b>	<b>Details</b>	<b>Proposed Plan</b>
43.	Does the grantee use any radioactive materials (isotopes tracers, radiation equipment, etc)?		<input checked="" type="checkbox"/>	We don't have any radioactive materials in our activity	
	Does the grantee have appropriate radioactive material and waste storage and disposal system in place?		<input checked="" type="checkbox"/>	We don't have any radioactive materials in our activity	
	Are radioactive warning signs in place?		<input checked="" type="checkbox"/>	We don't have any radioactive materials in our activity	
44.	Are there any odor control measures in place?		<input checked="" type="checkbox"/>	We don't generate odour issues in our activity	Proper measures will be put in place with Periodic cleaning and maintenance as and when required.
45.	Are fume hoods and exhausts regularly checked and maintained?	<input checked="" type="checkbox"/>		Fume hoods and exhausts regularly checked and maintained	Periodic checks will be done and fume extractors will be maintained.
46.	Does the grantee use DG set > 15 KVA?		<input checked="" type="checkbox"/>	We are not using DG set's but we use UPS for backup	
	Does the grantee have consent for DG > 15 KVA?		<input checked="" type="checkbox"/>		
	Are emissions from boilers and DG sets regularly monitored to be within the prescribed norms?		<input checked="" type="checkbox"/>		
47.	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?	<input checked="" type="checkbox"/>		We have developed process to store and recycle solid waste generated due to manufacturing process of FlexiOH Apart from that, we follow municipality guideline for segregation of general waste and give it to daily collection system	Will be maintained and monitored by concerned Department.

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48.	Is wastewater treated separately by the grantee? (Liquid waste from laboratory, chemicals, fluids, solvents, medium and cultures, coolants, etc.)	<input checked="" type="checkbox"/>	We don't have waste water waste generated in process.	Periodic checks will be done and the treatment plant shall be maintained
	Are there sludge management and cut off drains in place for wastewater?	<input checked="" type="checkbox"/>	We don't have waste water waste generated in process	
49.	Are necessary provisions for noise cancellation in place?	<input checked="" type="checkbox"/>	We are not generating noise from our activity	Will keep reviewing the noise generated and cap them according to the existing cancellation provisions.
50.	Are there any settlements, water bodies, cultivated land, or any other eco-sensitive areas near the grantee's premises?	<input checked="" type="checkbox"/>	No Eco-sensitive areas near the factory premises	
51.	Are there any buffers, fire vehicle routes in the grantee's premises?	<input checked="" type="checkbox"/>	fire vehicle routes is available	Will maintain these facilities throughout the project.

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.