

## 4k CMOS Optical & IR Imaging techniques & medical grade camera demonstrated for endoscopy

### UnivLabs Technologies Pvt. Ltd.

#### Environmental and Health Risk Management Plan

##### 1. Institutional Arrangements

Requirements	Current Status	Mitigation Steps
Institutional Bio-Safety Committee (IBSC)	The current proposal by UnivLabs doesn't involve bio safety risk. AMTZ as an institutional facility provider has not yet formed the committee.	AMTZ is in process of setting IBSC committee.
EHS Team	AMTZ has EHS team	Compliance with EHS norms
Documentation and Record Keeping in reference to the risks mentioned below and quantifiable records of generated waste and compliance measures.	AMTZ has team, which takes care of this.	Maintenance of proper records.
SOPs related to Environment Compliance e.g Chemical spillage handling, waste segregation etc.	UnivLabs is not involved in any chemical or large-scale electronic waste generation process, so it doesn't apply to UnivLabs. AMTZ being a med tech zone and facility provider has team to look after compliances for their facility.	Regular compliance with existing and updated norms.
General Safety and Storage	AMTZ is compliant to general safety and storage as per Indian state and central laws.	Has team which keeps track and keeps compliance upto date with latest law.

##### 2. Environmental Impact and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Air Pollution	Minimal Risk – the use of electricity backup generators indeed cause air pollution.	This is subject to the quality of electricity supply that is available at our facility from the electricity board. Use of diesel-electric generators will potentially cause air pollution.	The proposal is low power electronic hardware and software development which does not use heavy equipment. Hence, the level of pollution is expected to be minimized.
Water Pollution and Waste water treatment	Minimal Risk - standard use of any facility where manpower is used will generate typical levels of water pollution.	No project specific impact. This will be at levels like any typical office space or industrial facility.	The levels of pollution are minimal. We will comply with the requisite state regulations for waste water management
Chemical waste (including signage, storage and SOP for spillage)	Minimal Risk - It's low power electronic hardware and software development, which doesn't create Chemical waste.	Minimal to zero impact due to non-usage of hazardous chemicals.	It's low power electronic hardware and software development, which doesn't create Chemical waste. Any organic chemicals will be stored with appropriate signage.
Biological Waste	Not applicable – as there is no use of biological material.	Minimal to zero impact due to non-usage of any biological material.	It's low power electronic hardware and software development, which doesn't create Biological Waste.
Heavy metals	Use of specific metals for fabrication of camera hardware. This is limited to processes such as soldering etc. at a micro scale.	Minimal impact as use will not be extensive, but restricted to very specific activities in small amounts. Material used for endoscope will be biocompatible in nature, thus	Use of alternatives such as lead-free solder or outsourcing activities that use heavy metals.

		eliminating use of heavy metals.	
Electronic Waste	Iterative designs of PCBs, lens, electronic chips, accessories etc. for camera development and use in rigid endoscope.	High financial burden. Environmental destruction due to waste disposal.	Software-based designs will be undertaken to minimize financial losses. Electronic waste generated will be disposed according to existing laws.
Radiation Waste	Not applicable as there is no use of radiological material.	Minimal to zero impact due to non-usage of any radiological material.	It's low power electronic hardware and software development, which doesn't create radiological waste.
Destruction/ alteration of surrounding ecosystem	Not applicable as we will operate in facilities that are already established.	Not applicable as we will operate in facilities that are already established.	We will ensure compliance with local regulations to ensure proper disposal of all waste generated in the premises.
Construction and Demolition Waste	Not applicable as we are not undertaking any civil construction work under this project.	Not applicable as we are not undertaking any civil construction work under this project.	Not applicable as we are not undertaking any civil construction work under this project.

### 3. Occupational Health and Safety and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
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Heat Hazards	Minimal, only during working with soldering equipment or fabrication of some nature.	Burns and physical injuries due to heat and sparks.	Personal protective equipment will be provided to users as required.
Chemical hazards, including fire and explosions	Minimal Risk - It's low power electronic hardware and software development, which doesn't create Chemical waste.	Minimal to zero impact due to non-usage of hazardous chemicals.	Personal protective equipment will be provided to users as required. SOPs in place in case of spillage. Emergency exits are marked appropriately.
Pathogenic and biological hazards	Not applicable – as there is no use of biological material.	Minimal to zero impact due to non-usage of any biological material.	Not applicable as there is no use of biological or pathogenic material. Testing of camera (mounted on endoscope) will be done using phantoms
Radiological hazards	Not applicable – as there is no use of radiological material.	Minimal to zero impact due to non-usage of any radiological material.	It's low power electronic hardware and software development, which doesn't use radiological material.
Noise	Minimal Risk - It's low power electronic hardware and software development, which doesn't create Noise pollution.	Loss of hearing, physical injuries, loss of manhours.	Personal protective equipment will be provided to users as required.
Process safety	Minimal Risk as UnivLabs Technologies Pvt Ltd outsource most of Job work to our suppliers We control design, assembly and testing which neither requires	Minor shock while quality testing. Minor burns while soldering. Mincor scars while assembling screws etc.	ISO45001 implementation during production This standard helps organizations to improve employee safety, reduce workplace risks and create better, safer

	employees to be in contact with risky electricity, heavy mechanical work, chemical or pathogen exposure		<p>working conditions, all over the world.</p> <p>Will make accessible required consumables (Gloves), helmet, covers for moving instruments, tools and devices.</p> <p>Will get employee training programs, yearly audit for the same from accredited body.</p>
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#### 4. Community Health and Safety and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Safety Transportation Management System (for transport of hazardous material)	Minimal Risk – the project does not involve transport of any hazardous material as raw material/ semi-finished/ finished goods.	Minimal impact as there is no use of hazardous material.	Developing and incorporating SOPs if we undertake use of any type of hazardous material.
Emergency preparedness and participation of local authorities and potentially affected communities	Risk of fire, smoke, natural disasters etc.	Loss of material, property and life.	Emergency contact numbers will be listed in the company, emergency exits will be marked appropriately, mock drills may be conducted periodically.
<p>In case your organization already has <b>EHS guideline</b>, please summarise the same. If not, please describe the impact because of hazardous material, release of chemicals, biologicals, management of catastrophic events like fire/explosion.</p> <p>It's low power electronic hardware and software development, which doesn't create above risk.</p>			