

Indian Institute of Technology Madras



# Smart Eye – Technology Platform for Endoscopy Healthcare Technology Innovation Centre Environmental and Health Risk Management Plan

# 1. Environmental Impact and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Air Pollution	Minimal risk	Spills of used oil can cause contamination of air.	Used oil will be disposed as per norms of local pollution control board
Water Pollution and Wastewater treatment	Minimal risk	Spills of used oil can cause contamination of ground water.	Used oil will be disposed as per norms of local pollution control board
Chemical waste	Minimal risk	Spills of used oil result in risk of contamination of air, soil, groundwater etc.	Disposed as per norms of local pollution control board
Biological Waste	Minimal risk	Project implementation aspects will not create any adverse biological waste.	Project implementation aspects will not create any adverse biological waste
Heavy metals	Minimal risk	Project implementation aspects will not create any adverse heavy metals waste.	Project implementation aspects will not create any adverse heavy metals waste
Radiation Waste	Minimal risk	Project implementation aspects will not create any adverse radiation waste.	Project implementation aspects will not create any adverse radiation waste
Destruction/altera tion of surrounding ecosystem	Minimal risk	Project implementation aspects will not cause any adverse effect on surrounding ecosystem.	Project implementation aspects will not cause any adverse effect on surrounding ecosystem.







## 2. Occupational Health and Safety and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Heat Hazards	Minimal risk	Project implementation aspects will not cause any heat hazards	Project implementation aspects will not cause any heat hazards
Chemical hazards, including fire and explosions	Minimal risk	Injuries, property loss	Fire Extinguisher, Fire hydrant system
Pathogenic and biological hazards	Minimal risk	Project implementation aspects will not cause any pathogenic and biological hazards.	Project implementation aspects will not cause any pathogenic and biological hazards.
Radiological hazards	Minimal risk	Project implementation aspects will not cause any radiological hazards.	Project implementation aspects will not cause any radiological hazards.
Noise	Minimal risk	Project implementation aspects will not cause high noise level.	Project implementation aspects will not cause high noise level
Process safety	Minimal risk	Engineering and equipment maintenance shall be undertaken as per SOPs.	Process risk assessment and engineering control.

## 3. Community Health and Safety and risk mitigation

Risks	Project Specific Risk	Potential Impact	Mitigation Steps
Safety Transportation Management System (for transport of hazardous material)	Need safe transportation of used oil during disposal	Spills can cause contamination of air, soil, groundwater etc.	Disposed as per norms of local pollution control board through authorized bodies.
Emergency preparedness and participation of local authorities and potentially affected communities	Minimal risk	Localized	Onsite emergency plan, mock drills, communication mechanism to neighboring centre.



## **HTIC EHS Guidelines**

Healthcare Technology Innovation Centre is committed towards managing health, safety and environmental (HS&E) matters as an integral part of our business. In particular, it is our policy to assure the HS&E integrity of our processes and facilities at all times and all places. We will do so by adhering the following principles:

#### **Compliance:**

We will comply with applicable laws and regulations and will implement programs and procedures to assure compliance. Compliance with HS&E standards will be a key ingredient in the training, performance reviews, and incentives of all employees.

## Risk Reduction, Prevention, and Resource Management:

We will seek opportunities, beyond compliance requirements, for reducing risk to human health and the environment, and we will establish and meet our HS&E quality standards where appropriate. We will employ management systems and procedures specifically designed to prevent activities and/or conditions that pose a threat to human health, safety, or the environment. We will look for ways to minimize risk and protect our employees and the environment in which we operate by employing clean technology, including safe techniques and operating procedures, as well as being prepared for emergencies. We will strive to minimize releases to the air, land, or water through use of cleaner technologies and the safer use of chemicals. We will reduce the amount and toxicity of waste generated and will ensure the safe treatment and disposal of waste. We will manage scarce resources, such as water, energy, land, and forests in an environmentally sensitive manner.

#### **Communication:**

We will communicate our commitment to HS&E quality to our employees, vendors, and customers. We will solicit their inputs in meeting our HS&E goals.

#### **Continuous improvement:**

We will measure our progress and review it at least on an annual basis. We will continuously seek opportunities to improve our adherence to these principles and will periodically report progress to our collaborators.

Notwithstanding the above other risks (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