

Environmental Risk Assessment – RCHT Sterimelt

Activity: Use of the Sterimelt equipment	Location: Sterile Services Dept Compound	Assessor: Heather Walker, Sustainability Lead	Assessment Date: 22/06/2021 Review Date: 22/06/2022
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Item No	Hazard	Receptor	Pathway	Existing control measure	Probability of exposure	Consequence	Overall risk
1	Discharge to surface or groundwater.	Existing drainage system	Runoff	Process does not require liquids to be added. Unit will not operate (melt plastic) without collection tray in place. Built in fire suppressant system reduces the potential for external firefighting water use.	Low	Entry into existing surface water drainage system.	Low
2	Odour	Nearby hospital buildings	Airborne	Process designed to minimise odour release. No odour-producing waste to be processed or stored on site. Waste not stored on site for extended periods of time.	Low	None – no detectable odour expected.	Low

3	Noise and vibration from compressor	Staff working nearby	Atmospheric	Working noise level is 60dB (equivalent to conversational speech). No residential areas in close proximity. Working hours restricted to daylight. No mechanical moving parts in main machine. No contact required with machine while in operation so no vibration risk.	Medium	None – nearest staff are working inside a neighbouring building. Vehicle movements in the yard will be louder than compressor. No nearby sleeping areas.	Low
4	Fugitive emissions (ie dust, litter, pests etc)	Local area, fencing and hedges. Helipad (aprox 100m East)	Wind-blown	Items awaiting processing are kept in tied bags, in wheeled bins/cages. Regular litterpicking undertaken. Proactive pest control visits in place. Installation location and operating processes signed off by on-site Health & Safety team. Review pre-processing storage facilities as throughput increases. Post-treatment materials are solid blocks.	Medium	Minimal. Wind-blown litter unlikely to escape compound fencing. Pests unlikely to be attracted to the waste stream.	Low
5	Visible emissions	Nearby hospital buildings, staff on site.	Airborne	No visible emissions generated by the process. Internal fire suppression system minimises risk of fire-induced visible emissions.	Low	None – no visible emissions expected.	Low

6	Release of bioaerosols	Staff on site	Airborne	Decontamination heating cycle as part of treatment process. Waste from infectious patient care is not included.	Low	None – test data shows minimal levels of bioaerosols emitted by the Sterimelt.	Low
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