Environment Agency Proposal

IEX Consultants Ltd.

Environmental Risk Assessment

Revision No.	0	1	2	3	4
Prepared by / Date	DDH 18/02/23				
Checked by / Date					

1 Project Description

IEX Technologies Ltd (IEXTL) are a research, product and process development company based in the Wilton Centre, Redcar. IEXC specialise in developing products and processes for recovering precious metals from challenging organic and aqueous streams.

Based on successful trials completed in 2021-2023, IEXTL are seeking permission to operate a permanent waste treatment facility for the processing of precious metal containing aqueous and organic waste. The waste will be processed to recover the precious metals as part of the circular economy.

Two primary process routes will be considered for the processing of the waste:

1) Distillation and concentration of the waste materials to remove volatile components to produce a liquid concentrate that is suitable for transport offsite for precious metal refining.

2) Adsorption of the precious metals using ion exchange or scavenger material to immobilise the precious metals as a solid. The precious metals will bind onto the adsorbent materials and be filtered off to separate it from the bulk liquid waste material.

In all instances, sample of the waste will be evaluated in the onsite laboratory to identify the best processing route before the any bulk materials is received onsite.

The following provides a description of the waste material and detail of the proposed processing route that will be followed during the initial research campaign.

2 Waste Processing Location

IEXTL is seeking permission to process waste within the Wilton Site, Innovation Accelerator Compound. Please refer to the site plan, document IEXTL-EA-B2-5b Site Plan, for details of the area included. The waste will be processed in number of different buildings based on the current and future rental agreements in place.

Currently Operations:

- Pod 1, Innovation Accelerator, Wilton Centre, Wilton Site, Redcar, Cleveland, TS10 4RF.
- Pod 5, Innovation Accelerator, Wilton Centre, Wilton Site, Redcar, Cleveland, TS10 4RF.
- TS Clean Room, Innovation Accelerator, Wilton Centre, Wilton Site, Redcar, Cleveland, TS10 4RF.

Future Operations:

- Technology Development Area Lab N, Innovation Accelerator, Wilton Centre, Wilton Site, Redcar, Cleveland, TS10 4RF.

The flexibility to change rental units and consolidate operations as required is critical to the success of this venture and as such, IEXT request a permit to cover the general Innovation Accelerator compound and not specific units within it.

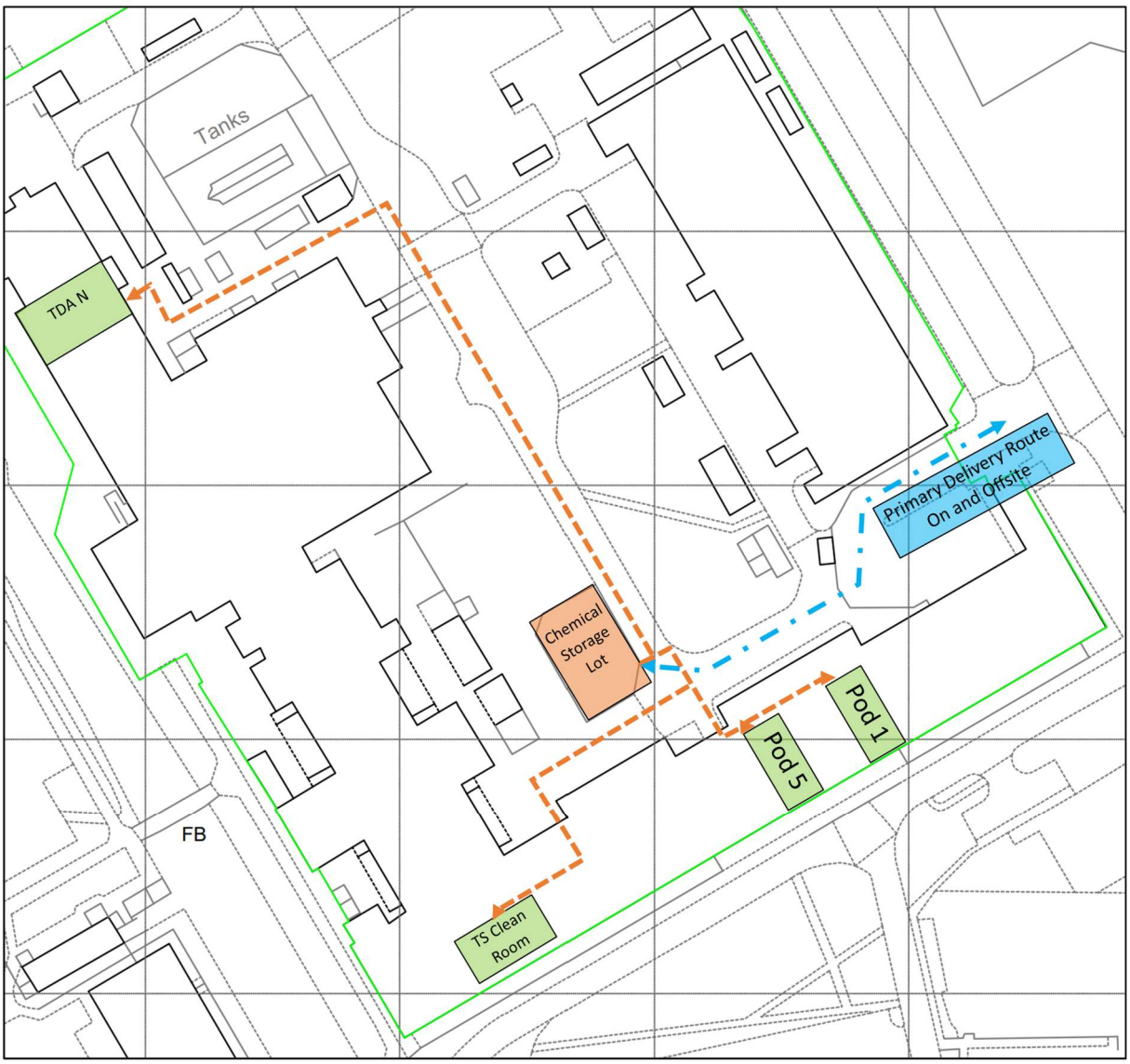
It is important to note that for each of the unit listed above, the same emissions control measures are applied:

1) All units are bunded or contain chemical resistant flooring with no access to a sewer or drain. The units are also equipped with spill kits commensurate in size to the quantity of waste being processed. This is to ensure

full containment of waste in the event of an accidental spill, and no direct route to ground or sewer.

2) All units contain local exhaust ventilation systems to control emissions to air. The ventilation system is the final defence against emissions to atmosphere using carbon beds to adsorb trace VOCs as recommended in Sector Guidance Note IPPC S5.06. The primary emission abatement technique used is condensation or wet scrubbing. The relatively low volatility of the material being processed lends itself well to being recovered through condensation at low temperature as outlined in Sector Guidance Note IPPC S5.06.

3) For all units, the treated and untreated waste, while not in processing, will be stored in the Chemical Storage Lot in the centre of the Innovation Accelerator Compound. The drawing below shows, relative to the overall Wilton Centre, where the Chemical Storage Lot is and where the current and future rental units are located. The orange arrows show the route that will be taken to move the waste from the storage site to the processing site. The blue arrow shows the primary route for bringing waste on and offsite.



3 Waste Processing Procedure

1. The chemical waste will be transported on to site by lorry. It is unlikely that the waste will be transported in its own designated lorry to site. As such, it will be stored with other chemicals in transit. Therefore, the total number of lorries entering the Innovation Accelerator compound will not change noticeably.

2. The waste will be offloaded from the lorry by a Forklift Truck (FLT). All material delivered to site will be labelled for storage in the Chemical Storage Lot. The waste material will be stored in its original, UN approved, transport container until processing starts.

3. For processing, the waste will be transported from the Chemical Storage Lot into the respective IEXT processing unit using a Pallet Truck for IBC's or a Drum Trolly for 55 Gallon drums. The containers will always remain sealed in transit to prevent accidental release of the liquid.

   Note: All routes from the Chemical Storage Lot to the processing units are on concrete roads. The drainage from these roads is collected for treatment and is not discharged into the local water course. In the event that waste is released in transit it will be prevented from entering the local water course by the closed drainage system.

4. The liquid waste will be pumped from the UN container into the appropriate process unit for processing to recover the precious metals. All equipment used in the processing of waste will be bunded to 110% of the maximum waste volume contained. The bunding will either be local to the equipment or encompassing the entire processing unit.

5. Where the material is processed by distillation:

   a. All vapour produced will be condensed and returned to the process or collected in a suitable UN Container for storage.
   b. Where venting is required, the gas will be vented via a wet scrubber to atmosphere to minimise total VOC emissions.
   c. The processing will be undertaken between 0 bara and 1 bara pressure and 10°C and 100°C temperature.
   d. The distillation residue will be analysed frequently to determine the increase in concentration of precious metals over time. This is to determine the end point of the distillation.
   e. Once the end point of the process has been achieved, residual condensate will be drained into the original UN Container.
   f. The distillation residue will be discharged into a separate UN Container.
   g. The residue will be sent to Mastermelts for refining.
   h. The condensate material will be sent to a registered waste handling company for disposal.
   i. Any solid waste material generated during cleaning of equipment or housekeeping will be retained and sent to Mastermelts for refining as it may contain residual precious metals.
   j. No other waste will be generated by the process.

6. Where the materials is processed by adsorption/ion-exchange:

a. Contacting will occur in either a Fixed Bed (FB) or Continuous Stirred Tank Reactor (CSTR).
b. The processing will be undertaken at 1 bara pressure and 10°C and 100°C temperature.
c. The equipment will be continually vented to atmosphere to prevent accumulation of potentially flammable gasses and to avoid pressure build-up.
d. The vent stream will be cooled to ambient temperature to knock out the bulk of VOCs before being passed to the air handling system where a carbon bed will scrub out any residual species.
e. The waste liquid will be analysed frequently to determine the decay in precious metal concentration over time. This will be used to determine when the adsorption process is approaching completion.
f. Once adsorption is complete, the adsorbent will be separated from the waste liquid and retained.
g. The waste will be returned to the original UN Storage container.
h. The adsorbent material will be transferred to a separate UN Storage Container.
i. The adsorbent will be sent to Mastermelts for refining.
j. The waste material will be sent to a registered waste handling company for disposal.
k. No other waste will be generated by the process.
l. Any solid waste material generated during cleaning of equipment or housekeeping will be retained and sent to Mastermelts for refining as it may contain residual precious metals.

7. In all instances, the waste materials will be transferred back to the Chemical Storage Lot. The product of processing will be retained in the Processing Unit until it is collected by Mastermelts.

4 Environmental Risk

Below is a table detailing the environmental risks posed by the proposed procedure highlighted in Section 2. It includes the unmitigated and mitigated risks to the environment based on the controls being put in place.

ACTION	Method Statement – See Section 3.	Location of Process or Activity
1-6	Waste transfer from storage to processing unit on the Wilton Site	Innovation Accelerator, Wilton
7-9	Waste processing in the processing vessel / equipment.	Innovation Accelerator, Wilton
8-11	Post processing waste transfer of liquid material.	Innovation Accelerator, Wilton
17-20	End of processing waste disposal.	Innovation Accelerator, Wilton
O	Other – Noise, Odour	Innovation Accelerator, Wilton

ITEM	Description of Environmental Hazard	What is the Risk?	Before Mitigation			Mitigations & Control Measures	Responsible Party	After Mitigation		
			Hazard Potential	Likelihood of Occurrence	Risk Rank			Hazard Potential	Likelihood of Occurrence	Risk Rank
1-6	Damage to Waste Bulk Storage Container during delivery.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	HIGH	RARE	**MEDIUM**	1. The waste will be stored in a UN specified container for hazardous road transport. 2. All deliveries will be processed under a TFS ensuring reputable hauliers are employed. 3. Only a qualified Fork Lift Truck driver will be employed to move the containers.	WASTE TRANSFER COMPANY	LOW	RARE	**NEGLIGIBLE**
1-6	Liquid waste is spilt during sampling of the container contents in the Chemical Storage Lot.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	LOW	POSSIBLE	**LOW**	1. Sampling will occur in a secured chemical storage area on the Wilton site that has an isolated drain. This will prevent any spillage entering the rainwater drain system. 2. Samples will be stored in appropriate containers with sealed lids. 3. Spill mats will be on hand during any sampling activities.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
1-6	Spillage of waste materials in transport.	Liquid waste likely to be harmful to skin, eyes, if ingested or inhaled.	MEDIUM	UNLIKELY	**MEDIUM**	1. UN Rated waster material containers to remain closed in transport. 2. Operators to wear long sleeves, long trousers, chemical resistant footwear, safety glasses and gloves when transporting the waste container.	OPERATOR	LOW	RARE	**NEGLIGIBLE**

						3. COSHH assessment to be performed on every new material received to ensure the appropriate PPE and decontamination methods are selected. 4. Spill kit to be always available when handling the material.				
1-6	UN Container damaged on transit to the Processing Unit from the Chemical Storage Lot.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	HIGH	RARE	**MEDIUM**	1. Operators to make themselves visible to other road users and to ensure that the road user has acknowledged them before moving the containers. 2. A spill kit will be available to isolate the spillage and prevent it entering the rainwater drain system. 3. The distance from the Chemical Storage Lot to the Processing Units is <100m, <50m of which is shared by other road users. 4. Traffic is limited in the area so a collision with another vehicle is unlikely. 5. Speed is limited to 5 mph in the Innovation Accelerator Compound so damage to the container is unlikely on collision.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
1-6	Liquid waste is spilt during transfer into the processing equipment.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	LOW	POSSIBLE	**LOW**	1. The unit where the waste is to be processed will have either a chemical resistant floor covering or bund, and no open drains so the material will be contained. 2. If the unit is not bunded, then the processing equipment will be bunded to 110% of the total waste inventory. 3. The waste transfer procedure will always be manned to prevent overfilling of vessels. 4. A spill kit will be available to isolate the spillage and clean it up. 5. Transfer pumps and nozzles will be positioned over the bund when the transfer is occurring to ensure any material released from flanges or fittings are collected.	OPERATOR	LOW	RARE	**NEGLIGIBLE**

1-6	Spillage of waste materials during transfer into processing equipment.	Liquid waste likely to be harmful to skin, eyes, if ingested or inhaled.	HIGH	UNLIKELY	**HIGH**	1. Operators to wear long sleeves, long trousers, chemical resistant footwear, safety glasses and gloves when pumping waste material. 2. COSHH assessment to be performed on every new material received to ensure the appropriate PPE and decontamination methods are selected. 3. Spill kit to be always available when handling the material. 4. Eye wash kit to be available. 5. Shower available to remove excess material from skin in the event of a spill. 6. Change of clothes to be available in the event of a large material exposure.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
7-8	Failure of the processing equipment or piping system leading to large release of waste.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	HIGH	RARE	**LOW**	1. The process operates at atmospheric pressure and low temperature. The vessel and pipework will be Stainless Steel. Accidental failure due to impact with the equipment will not cause a release. 2. Any glass equipment used in processing will be limited in volume to <100L. 3. All units will be bunded with 110% of the maximum capacity of the waste being processed and any heating or cooling fluid that could be concurrently released. 4. The waste processing route will be selected partially in consideration of the corrosivity. Equipment will be selected to keep corrosion to a minimum, so a failure of the equipment is very unlikely. Equipment will be visually inspected after each batch processed and, if any surface damage has occurred, will be withdrawn from service pending third party inspection. Equipment will be inspected every 12 months to ensure wall thinning has not occurred. 5. The unit where the waste is to be processed will have either a chemical resistant floor	OPERATOR	LOW	RARE	**NEGLIGIBLE**

						covering or bund, and no open drains so the material will be contained. 6. A spill kit will be available to isolate the spillage and clean it up. 7. No vehicles can fit into the laboratory, so a large-scale impact is unlikely.				
7-8	The processing vessel will be vented so there will be fugitive VOC emissions from the system to air.	VOC Emissions to air.	ALMOST CERTAIN	VERY LOW	**LOW**	1. Every processing vessel will be fitted with an appropriate primary VOC abatement technique as outlined in Sector Guidance Note IPPC S5.06. This is either using condensation or set scrubbing techniques. 2. The processing vessel will also be ventilated to the Local Exhaust Ventilation (LEV) System to scrub out fugitive emissions. 3. In the even that local power, cooling or water is lost, the carbon bed in the LEV will prevent short term emissions to atmosphere. 4. Every 6 months, VOC emissions testing will be carried out using a handheld VOC Photoionisation detector (PID).	OPERATOR	RARE	VERY LOW	**NEGLIGIBLE**
9-16	Liquid waste is spilt during transfer from the processing equipment.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	LOW	POSSIBLE	**LOW**	1. The unit where the waste is to be processed will have either a chemical resistant floor covering or bund, and no open drains so the material will be contained. 2. If the unit is not bunded, then the processing equipment will be bunded to 110% of the total waste inventory. 3. The waste transfer procedure will always be manned to prevent overfilling of vessels. 4. A spill kit will be available to isolate the spillage and clean it up. 5. Transfer pumps and nozzles will be positioned over the bund when the transfer is occurring to ensure any material released from flanges or fittings are collected.	OPERATOR	LOW	RARE	**NEGLIGIBLE**

9-16	Spillage of waste materials during transfer from processing equipment.	Liquid waste likely to be harmful to skin, eyes, if ingested or inhaled.	HIGH	UNLIKELY	**HIGH**	7. Operators to wear long sleeves, long trousers, chemical resistant footwear, safety glasses and gloves when pumping waste material. 8. COSHH assessment to be performed on every new material received to ensure the appropriate PPE and decontamination methods are selected. 9. Spill kit to be always available when handling the material. 10. Eye wash kit to be available. 11. Shower available to remove excess material from skin in the event of a spill. 12. Change of clothes to be available in the event of a large material exposure.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
9-16	UN Container damaged on transit to the Processing Unit from the Chemical Storage Lot.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	HIGH	RARE	**MEDIUM**	1. Operators to make themselves visible to other road users and to ensure that the road user has acknowledged them before moving the containers. 2. A spill kit will be available to isolate the spillage and prevent it entering the rainwater drain system. 3. The distance from the Chemical Storage Lot to the Processing Units is <100m, <50m of which is shared by other road users. 4. Traffic is limited in the area so a collision with another vehicle is unlikely. Speed is limited to 5 mph in the Innovation Accelerator Compound so damage to the container is unlikely on collision.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
9-16	Spillage of waste material during processing.	Liquid waste likely to be harmful to skin, eyes, if ingested or inhaled.	HIGH	UNLIKELY	**HIGH**	1. Operators to wear long sleeves, long trousers, chemical resistant footwear, safety glasses and gloves when pumping waste material. 2. Access to processing equipment via interlocked hatches – any agitation or mixing will stop when the hatch is opened to minimise the chance of splashing. 3. COSHH assessment to be performed on every new material received to ensure the	OPERATOR	LOW	RARE	**NEGLIGIBLE**

						appropriate PPE and decontamination methods are selected. 4. Spill kit to be always available when handling the material. 5. Eye wash kit to be available. 6. Shower available to remove excess material from skin in the event of a spill. 7. Change of clothes to be available in the event of a large material exposure. 8. All units will be bunded with 110% of the maximum capacity of the waste being processed to contain any large volume releases.				
9-16	Fugitive Emission of vapour during processing.	Liquid waste likely to be harmful if inhaled.	MEDIUM	UNLIKELY	**MEDIUM**	1. Local Exhaust Ventilation available to prevent acute exposure from process vapour. 2. Equipment operated under a slight negative pressure to prevent fugitive emissions. 3. Failure of the ventilation system will shut down the process equipment and switch off the heating to prevent vapour entering the processing area.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
9-16	Release of hot waste material during processing.	Hot Liquid will cause burns.	MEDIUM	UNLIKELY	**MEDIUM**	1. Operators to wear long sleeves, long trousers, chemical resistant footwear, safety glasses and gloves when pumping waste material. 2. Access to processing equipment via interlocked hatches – any agitation or mixing will stop when the hatch is opened to minimise the chance of splashing. 3. Eye wash kit to be available. 4. Shower available to treat burns while awaiting first aid treatment. 5. Process equipment designed to prevent large release of hot liquid – double blocked valves, drains routed to ground level etc.	OPERATOR	LOW	RARE	**NEGLIGIBLE**
17-20	Solid adsorbent waste is spilt	The liquid waste residue on the	LOW	UNLIKELY	**LOW**	1. The unit where the waste is to be processed will have either a chemical resistant floor	OPERATOR	LOW	RARE	**NEGLIGIBLE**

	during transfer into Blue Drums.	absorbent is likely to be harmful to aquatic life with long lasting effects. (H412).				covering or bund, and no open drains so the material will be contained. 2. If the unit is not bunded, then the processing equipment will be bunded to 110% of the total waste inventory. 3. The solids adsorbent will contain incipient wetness, so a large release of liquid is not possible. 4. The solids waste can be swept up by the operator wearing standard PPE and placed into the storage drum. 5. The drums will be UN classified for road transport.				
17-20	Damage to Processed Waste Bulk Storage Container during transport offsite.	The liquid waste is likely to be harmful to aquatic life with long lasting effects. (H412).	HIGH	UNLIKELY	**MEDIUM**	1. The waste will be stored in a UN specified container for hazardous road transport. 2. Only a regulated waste transfer company will be used for the transport and disposal. 3. Only a qualified Fork Lift Truck driver will be employed to move the containers. 4. The waste will be sent for processing at a regulated waste disposal company.	WASTE TRANSFER COMPANY	LOW	RARE	**NEGLIGIBLE**
17-20	Damage to Solid Adsorbent Drum during transport offsite.	Spill of Solid Waste	LOW	UNLIKELY	**LOW**	1. The waste will be stored in a UN specified container for hazardous road transport. 2. Only a qualified Fork Lift Truck driver will be employed to move the containers.	WASTE TRANSFER COMPANY	LOW	RARE	**NEGLIGIBLE**
O1	Odour / Fugitive emissions from waste when in storage.	Nuisance Odour	LOW	UNLIKELY	**NEGLIGIBLE**	1. The waste will be kept in the UN storage container it was delivered in- pre and post processing. The containers will be sealed so fugitive emissions will be near zero. 2. Only 10 IBCs will be stored on site at one time, so the likelihood of an IBC being left open is reduced. 3. The Chemical Storage Lot is 100m from the nearest office block and 1 km from the nearest residential site so emissions will disperse before causing a nuisance.	OPERATOR	VERY LOW	RARE	**NEGLIGIBLE**

						4. The Chemical Storage Lot is also part of the wider Wilton International chemical site so the contribution to local emissions will be trivial.				
O2	Noise during delivery.	Nuisance Noise	VERY LOW	LIKELY	**LOW RISK**	1. The waste material will be delivered by lorry. No noticeable additional lorry movements are expected as the material will be delivered as part of a mixed chemical freight delivery. 2. One delivery is expected every 2 weeks. 3. The access road is shared by the chemical industry on Wilton International. As such, there will be negligible increase in vehicle traffic movements associated with the IEXT operation.	WASTE TRANSFER COMPANY	VERY LOW	UNLIKELY	**NEGLIGIBLE**
O3	Noise during transport.	Nuisance Noise	VERY LOW	LIKELY	**LOW RISK**	1. A manual pallet truck will be used to transfer the containers between the Chemical Storage Lot and the processing unit. 2. Two IBC movement will occur each day. 3. Externally the noise will come from the pallet truck wheels on rough concrete. Internally the flooring is smooth so noise will be negligible. 4. Pallet trucks with rubber tires will be used to minimise noise. 5. Multiple vehicle movements occur each day onsite so this movement is not expected to add to the existing background noise level.	OPERATOR	VERY LOW	UNLIKELY	**NEGLIGIBLE**
O4	Noise during processing.	Nuisance Noise	VERY LOW	RARE	**NEGLIGIABLE**	1. The only noise come from process pumps or agitator impellers. The sound intensity is below 80db. 2. All processing occurs indoors. As such the walls of the building will attenuate any noise generated. 3. The noise intensity will be no greater than the background noise intensity of an industrial site of this nature.	OPERATOR	NONE	UNLIKELY	**NEGLIGIBLE**

4.1 Fire Risk Assessment

ACTION	Fire Safety Risk Assessment	Location of Process or Activity
1-8	Sources of ignition and fuel.	Innovation Accelerator, Wilton
9-10	People at risk.	Innovation Accelerator, Wilton

ITEM	Description of Fire Hazard	What is the Risk?	Before Mitigation			Mitigations & Control Measures	Responsible Party	After Mitigation		
			Hazard Potential	Likelihood of Occurrence	Risk Rank			Hazard Potential	Likelihood of Occurrence	Risk Rank
1	Ignition of the Chemical Waste when stored in the Chemical Storage Lot.	Ignition source could provide sufficient energy to ignite stored waste.	MEDIUM	POSSIBLE	**MEDIUM**	1. Only ATEX rated equipment is allowed in the Chemical Storage Lot. 2. Only Pneumatically driven pumps can be used in the area. 3. Waste material is stored in UN Certified containers so fugitive emissions will be near zero. As such, there will not be any vapour to ignite. 4. Smoking is only allowed in designated areas – well removed from the chemical storage lot.	INCUBATION AREA OCCUPANTS	MEDIUM	RARE	**LOW**
2	Ignition of waste material during processing.	Ignition source could provide sufficient energy to ignite waste.	MEDIUM	POSSIBLE	**MEDIUM**	1. Only ATEX rated equipment is allowed in the processing unit. 2. The processing unit is continually ventilated to prevent the accumulation of processing vapour. 3. Condenser and/or wet scrubber will eliminate fugitive emission from the processing unit. 4. Smoking is only allowed in designated areas – well removed from the chemical storage lot.	OPERATORS	MEDIUM	RARE	**LOW**

						5. The total volume of waste material in a Process Unit at any one time is 1000L, so the total flammable inventory is minimised.				
3	Ignition of the Chemical Waste when stored in the Chemical Storage Lot.	Arson	MEDIUM	POSSIBLE	**MEDIUM**	1. Waste is stored in a secure compound only accessible with a site pass. 2. Out of hours admission is controlled at the main site gate as well as by local swipe card access. 3. During daytime hours, the area is very visible to the multiple occupants of the Innovation Accelerator, thus making it very hard for people to act maliciously.	SECURITY	MEDIUM	RARE	**LOW**
4	Ignition of waste material during processing.	Arson	MEDIUM	POSSIBLE	**MEDIUM**	1. The Innovation Accelerator has 24/7 security at the main site gate thus limiting access. 2. Processing Units are only accessible by swipe card access. 3. Out of hours admission is controlled at the main site gate as well as by local swipe card access. 4. During daytime hours, the process units are regularly manned so the opportunity for malicious activity is limited. 5. The total volume of waste material in a Process Unit at any one time is 1000L, so the total flammable inventory is minimised.	OPERATORS	MEDIUM	RARE	**LOW**
5	Ignition of other combustible material in the	Poor Housekeeping and accumulation of	LOW	UNLIKELY	**LOW**	1. Only chemicals are allowed to be stored in the Chemical Storage Lot, and only if they are stored in		VERY LOW	RARE	**NEGLIGIABLE**

	Chemical Storage Lot.	combustibles.				appropriate containers. The contents of the chemical storage lot is overseen by the owners of the Innovation Accelerator to ensure consistency. 2. The Chemical storage lot is located 30m away from the site general waste storage so the likelihood of a fire passing between the two areas is small. 3. Waste contractors work on site to remove general waste as it is generated so it is not allowed to accumulate. 4. Smoking is only allowed in designated areas – well removed from the chemical storage lot.				
6	Ignition of other combustible material in the Processing Area.	Poor Housekeeping and accumulation of combustibles.	LOW	UNLIKELY	**LOW**	1. Any combustible material to be removed from the processing area as it is generated. 2. Other combustibles such as Wood, Paper, Textiles are kept to an absolute minimum. 3. All other chemicals are stored and segregated in certified COSHH cabinets. 4. Only ATEX rated equipment is allowed in the processing unit – removing ignition sources. 5. Smoking is only allowed in designated areas – removing ignition sources.	OPERATORS	VERY LOW	RARE	**NEGLIGIABLE**
7	Maintenance Contractors working in the	Sparking Equipment	LOW	UNLIKELY	**LOW**	1. Any hot works to be undertaken under a permit.	OPERATORS	VERY LOW	RARE	**NEGLIGIABLE**

	Processing Units					2. All flammable and combustible materials to be eliminated from the working area. 3. Fire watcher to be present when undertaking hot works. 4. All waste materials to be removed from the unit and stored in the Chemical Storage Lot until works are complete.				
8	Maintenance Contractors working in the Processing Units	Poor Housekeeping and accumulation of combustibles.	LOW	UNLIKELY	LOW	1. Any combustible material to be removed from the area as it is generated. 2. Other combustibles such as Wood, Paper, Textiles are kept to an absolute minimum. 3. All other chemicals are stored and segregated in certified COSHH cabinets. 4. Any hot works to be undertaken under a permit. 5. Fire watcher to be present when undertaking hot works.	OPERATORS	VERY LOW	RARE	NEGLIGIABLE
9	Impact of Fire on People	Staff Injured by Fire	LOW	UNLIKELY	LOW	1. The Wilton Incubation Accelerator is equipped with a site wide fire alarm system. 2. The fire alarm system is tested weekly. 3. System installed with sounders and beacons to alert those with hearing and visual impairment. 4. Multiple escape locations are available for each of the processing units. 5. Most processing units are single story with direct access to muster points.	OPERATORS	VERY LOW	RARE	NEGLIGIABLE

						6. Staff that are less mobile will be work in the Process Units that are single story to facilitate evacuation. 7. Where multiple stories are used for processing, each story will have a minimum to two escape routes. 8. The Wilton International site has its own, permanent, dedicated fire brigade which will respond to any fire emergencies.				
10	Impact of Fire on People	Damage to neighbouring business / harm to third parties	LOW	UNLIKELY	**LOW**	1. The Wilton Incubation Accelerator is equipped with a site wide fire alarm system. 2. The fire alarm system is tested weekly. 3. System installed with sounders and beacons to alert those with hearing and visual impairment. 4. Multiple escape routes are available for all occupants of the Innovation Accelerator. 5. The Wilton International site has its own, permanent, dedicated fire brigade which will respond to any fire emergencies.	INCUBATION AREA OCCUPANTS	VERY LOW	RARE	**NEGLIGIABLE**

5 Risk Matrix – For Reference