SITA WREXHAM HEALTHCARE – ACCIDENT MANAGEMENT PLAN

This document details the Accident Management Plan for the SITA Wrexham Healthcare Clinical Waste Facility. This Accident Management Plan has been prepared to comply with Health & Safety Emergency Preparedness and Environment Agency guidance, The Incineration of Waste (EPR 5.01) – Section 1.1 Accident Management.

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1.0 GENERAL INFORMATION

1.1 SITE NAME AND ADDRESS

SITA UK Ltd
Wrexham Healthcare
Marlborough Road
Wrexham Industrial Estate
Wrexham
LL13 9RJ

2.0 CONTACT DETAILS

2.1 SITE CONTACTS

Alan Gartside	Senior Plant Manager
Paul Phillips	Assistant Plant Manager
Stephen Blay	SHEQ Officer Healthcare

2.2 HEALTH AND SAFETY CONTACTS

Andrew Crowther	Group SHEQ Director
Toby Hudson	SHEQ Manager Healthcare
David Caveney	Safety Representative

2.3 FIRST AID CONTACTS

John Davies
Andrew Evans
Michael Munro
Philip Evans

2.5 EMERGENCY SERVICES

Fire	999
Police	999
Ambulance	999

2.6 OUT OF HOURS

The plant is manned 24/7, and can be contacted on 01978 729930.

3.0 SITE INVENTORY

3.1 INVENTORY OF CHEMICAL STORAGE

Table 1 – Chemical Inventory

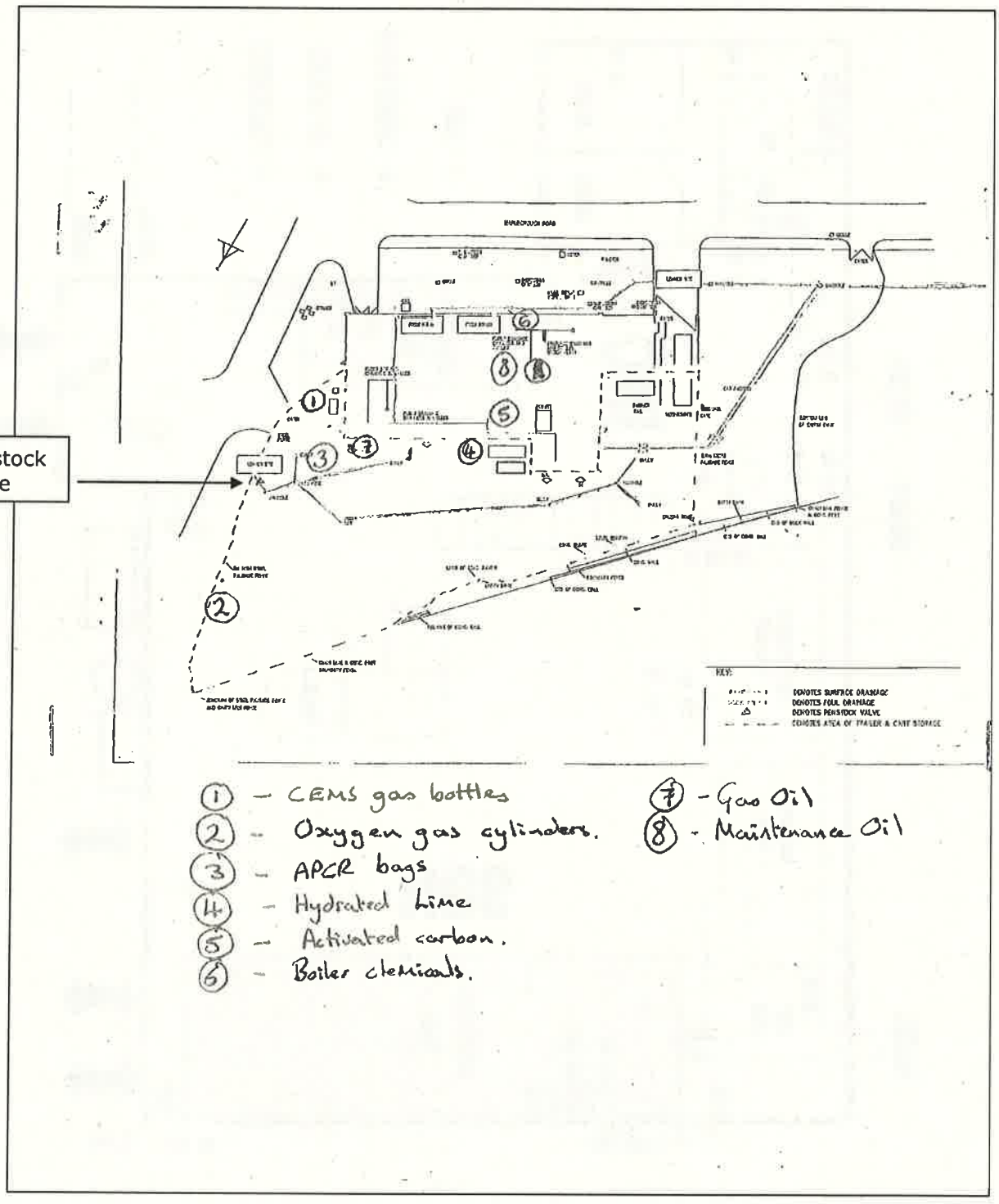
TRADE NAME	CHEMICAL	LIQUID/SOLID POWDER/GAS	CONTAINER SIZE	MAXIMUM QUANTITY ON SITE
Quick lime/hydrated lime	Lime	Powder	18 tonne silo	18 tonnes
Activated carbon	Activated carbon	Powder	1 tonne	4 tonnes
Gas oil	Gas oil	Liquid	1000 litre	1000 litres
Aquaserve BW380	Sodium Hydroxide	Liquid	500 litre	500 litre
Aquaserve BW140	Sodium Polyphosphate	Liquid	500 litre	500 litre
APCR	APCR	Powder	500 kg	13 tonnes
Hydrogen/ helium	40% hydrogen	Gas	46kg	184 kg
CEMS calibration gases	Various	Gas	20 to 46Kg	16 cylinders
Maintenance substances	Oil & grease	Liquid/solid	500ml to 2 litres	Small quantities

3.2 INVENTORY OF EMERGENCY EQUIPMENT

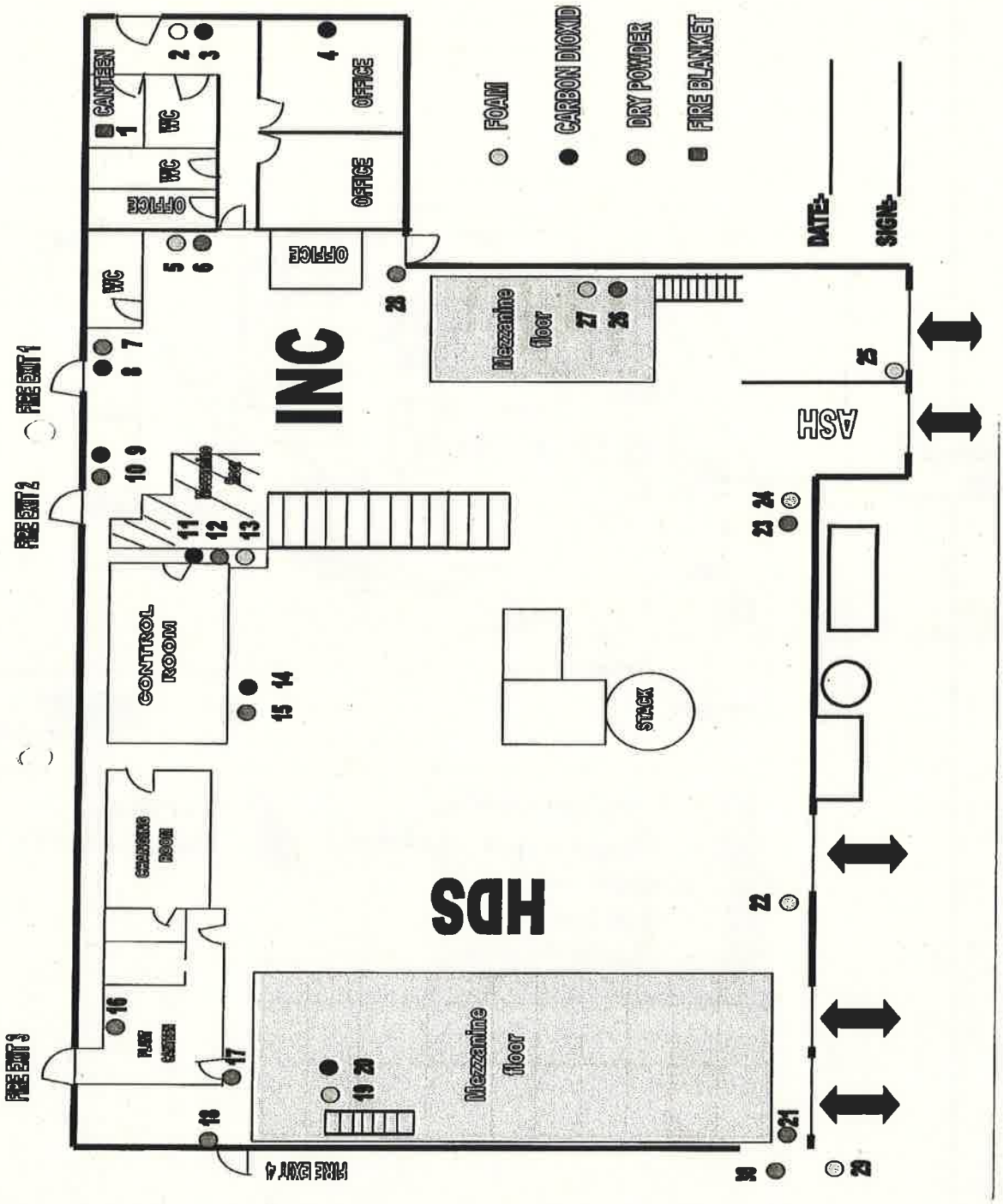
Table 2 – Emergency Equipment Inventory

EQUIPMENT	LOCATION
Fire extinguisher	Various around site
Spillage equipment, and type	2 near waste reception area Clinical Waste Spillage kits
Emergency showers	Lime reactor
First aid kits	Various around site

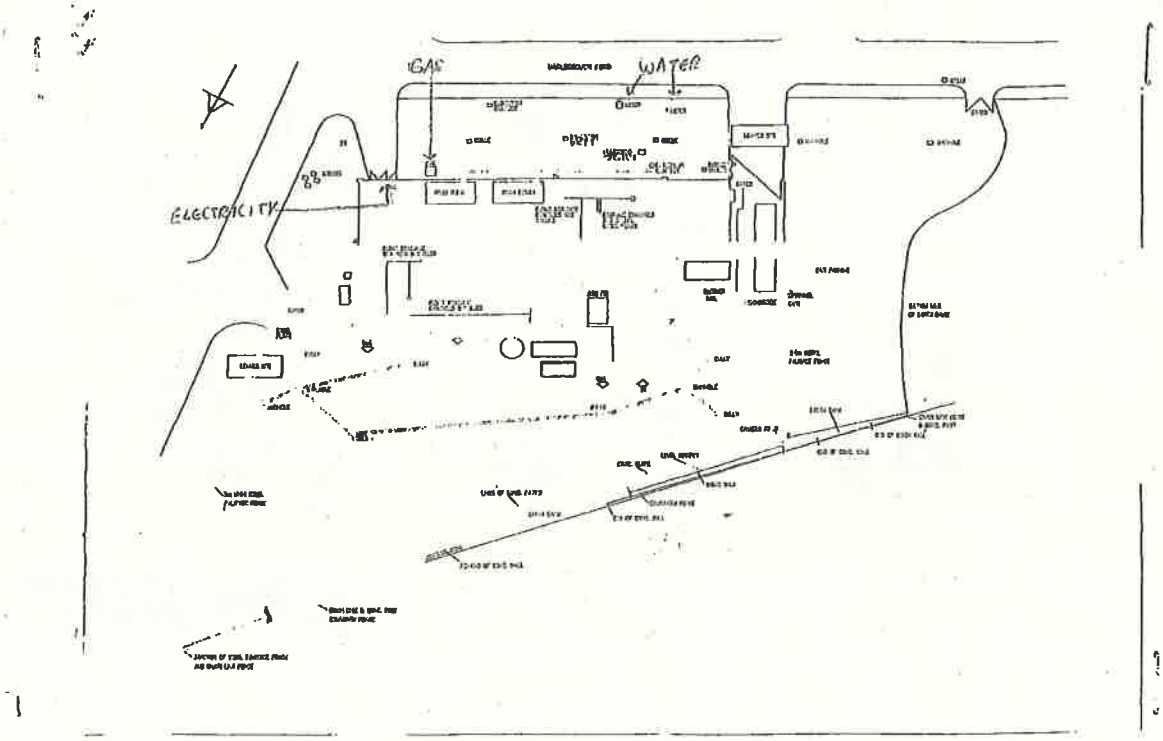
3.3 SITE DRAINAGE PLAN AND LOCATION OF CHEMICALS



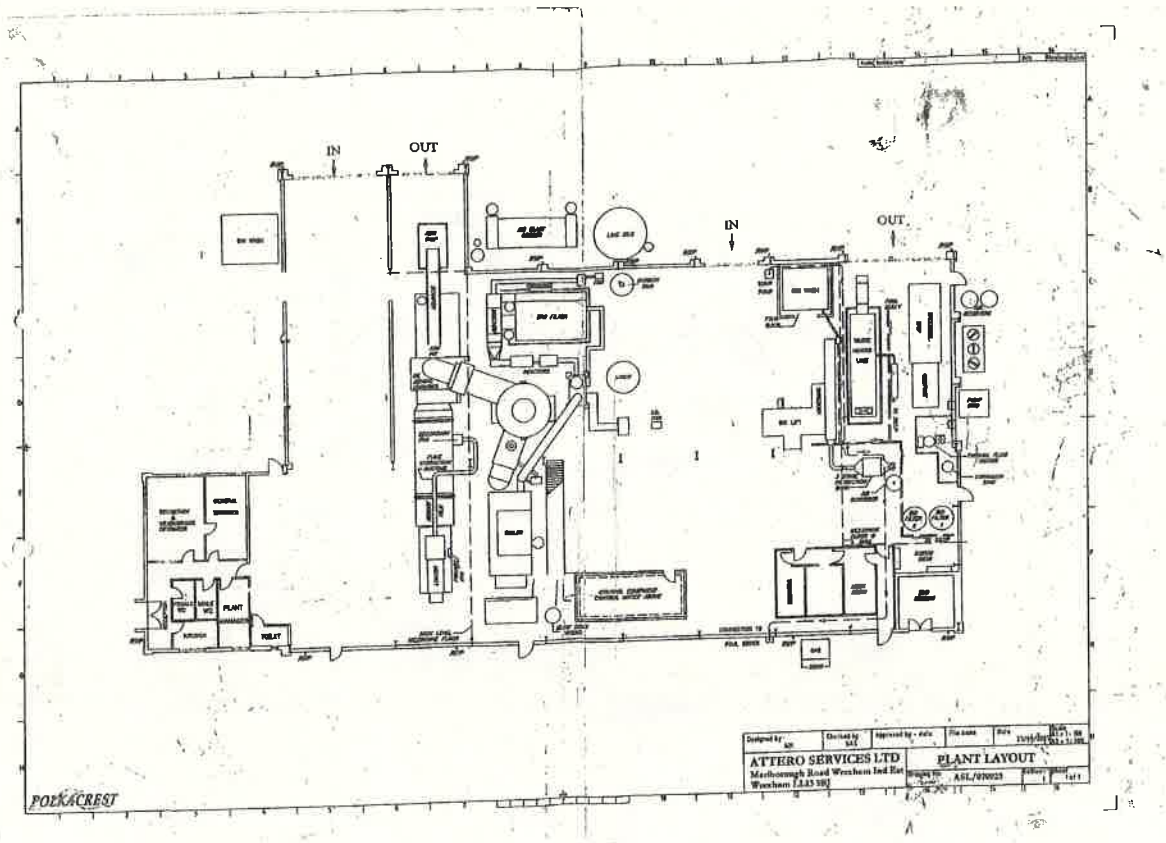
3.4 LOCATION OF FIRE EXITS & EXTINGUISHERS



3.5 UTILITIES ISOLATION POINTS



3.6 PLANT LAYOUT



4.0 ACCIDENTS AND CONTROL MEASURES

4.1 The Accident Management Plan, Appendix A details a series of risk assessments that have been undertaken to identify potential events or failures that may lead to an environmental impact.

4.2 The Accident Management Plan, Appendix B details the Fire Management Plan for the site. All spillages are dealt with by following site spillage procedures.

4.3 Within the risk assessments detailed in Appendix A, the following aspects have been considered:

i. the environmental consequences of any potential occurrence

ii. the likelihood of the potential occurrence

iii. actions taken to minimise the potential occurrence

iv. reference to various action plans in the event of an occurrence

4.4 For accident management, there are three particular components:

i. **identification of the hazards** posed by the installation/activity

ii. **assessment of the risks** (consequence x probability) of accidents and their possible consequences and

iii. implementation of **measures to reduce the risks (mitigation)** of accidents, and contingency plans for any accidents that occur.

Identifying the Hazards

4.5 The site will be operated in such a manner that necessary measures will be taken to prevent accidents and limit their consequences. The hazards posed by the site to the environment are identified in the Risk Assessments (Appendix A).

Assessing the Risks

4.6 The potential risk associated with the hazards identified above are estimated by assessing the magnitude of the potential impact (consequences) and the probability of this occurring. The probability of risk is based upon the likelihood of the accident occurring whereas the magnitude of the potential impact of the accident is based upon the consequences of the impact upon receptors. The risk assessments, presented in Appendix A deal with assessing the risks in greater detail and provide details of the following points:

i. The hazard

ii. The pathways and receptors

iii. An estimation of the probability of a hazard occurring

iv. The consequences or impacts of the hazard (these have been classified into five categories)

v. The risk

vi. The mitigation measures to prevent or reduce the risk (risk management – measures to prevent accidents and/or reduce their environmental consequences)

vii. The mitigated risk

Handling, Investigating, Communicating and Reporting of Actual or Potential Non-Compliance

4.7 The investigation, communication and reporting of any incident of actual or potential non-compliance with operating procedures or emissions limits will be undertaken in accordance with Section 2.13 of the Integrated Management System (IMS) Procedures. Any actions taken to mitigate any environmental impacts caused and the actions for initiating and completing any corrective actions are detailed within this system.

Environmental Complaints

4.8 In the event of an environmental complaint received either by telephone, in person or by letter then the procedures outlined within Section 2.6 of the IMS Procedures must be undertaken. It is the responsibility of all staff who receives telephone, verbal or written complaints to comply with the procedure.

Communication and Reporting of Incidents and Near-Misses

4.9 In the event of an environmental incident then the relevant procedures relating to fire, explosions, leaks and spillages detailed in Section 3.8 of the IMS procedures will be executed. The incident must also be recorded in accordance with Section 2.13 of the IMS procedures. This system will document and record the incident, the resulting investigation into the causes of the incident and will ensure corrective actions will result from implementation of recommendations following the incident. The Environment Agency will be informed of the incident as soon as practicable.

4.10 In the event of a Health and Safety accident or near miss then the procedures outlined within Section 2.11 of the IMS procedures must be followed. This will ensure that an investigation takes place and that any required remedial action is undertaken. A list of potential events which must be reported as near misses is detailed within SITA's Health and Safety Procedures (Health & Safety/H&S information/Guidance and training/General guidance/Reporting of Near Misses).

4.11 Should any of the Health and Safety incidents reported within the procedures outlined above be the result of an operational non-conformance then the incident must also be recorded in accordance with Section 2.13 of the IMS Procedures.

APPENDIX A

RISK ASSESSMENTS COVERING:

ACCIDENTS AND THEIR CONSEQUENCES

Type of accident to include:

- Waste storage failure
- Incoming waste deliveries
- Raw material handling – overflow of storage tanks, failure of pipe work, failure of storage tank
- Waste charging failure – waste chute blockage, fire in waste chute
- Furnace control failure – ID fan trip, loss of pressure
- Residue handling/storage failure
- Power failure
- Reagent shortage
- Blockages
- Damage to equipment
- Contaminated water from emergency activities
- Fire
- Fire water run-off
- Spillage – minor/major
- Severe weather – wind, flood, cold

RISK ASSESSMENT DEFINITIONS

Hazard: A property or situation that in particular circumstances could lead to harm.

Probability: The chance that a hazard will evolve and that the hazard will follow a pathway to a receptor:

Probability	Definition
High (H)	Will definitely occur
High/Medium (H/M)	High possibility of occurrence
Medium (M)	Likely to occur
Medium/Low (M/L)	Low possibility of occurrence
Low (L)	Very unlikely to occur

Consequence: The adverse effects or impacts of a hazard being realised upon a receptor:

Probability	Definition
High (H)	Possible irreparable damage to environmental resources and or human life.
High/Medium (H/M)	Possible irreparable damage to environmental resources
Medium (M)	Possible damage to environmental resources which are limited within a regional context
Medium/Low (M/L)	Possible effects might be transient damage to environmental resources which are common place on a regional basis and alternative resources are readily available
Low (L)	The effects are negligible or might cause very slight temporary deterioration in the current environmental resource quality.

Risk: A combination of the probability, or frequency, of occurrence of a defined hazard and the consequence and magnitude of impact. The general High (H), High/Medium (H/M), Medium (M), Medium/Low (M/L) and Low (L) ratings listed in the risk assessment tables, are for use as a guide only based on:

Matrix for the Estimation of the Risk					
Probability of Risk	**Consequence**				
	High	**High/Medium**	**Medium**	**Medium/Low**	**Low**
High	High	High	High/Medium	Medium	Medium
High/Medium	High	High/Medium	Medium	Medium	Medium
Medium	High/Medium	Medium	Medium	Medium	Medium/Low
Medium/Low	Medium	Medium	Medium	Medium/Low	Low
Low	Low	Low	Low	Low	Negligible

TABLE 1: DELIVERY OF RAW MATERIALS RISK ASSESSMENT						
Hazard	**PATHWAY AND RECEPTOR**	**PROBABILITY OF HAZARD**	**CONSEQUENCE OF HAZARD**	**RISK FACTOR (PROBABILITY X CONSEQUENCE)**	**MITIGATION MEASURES**	**MITIGATED RISK**
Spillage of fuel from failure of tank or pipework	Spillage exceeding capacity of bund, discharge to surface water via surface water drains and interceptor.	L	M	L	• Fuel stored in double bunded storage tank. • Daily checking of the tank and the bund to ensure integrity and available containment capacity • Documented inspection procedure	L
Spillage of stored oils	Spillage within store container contained within container, Spillage outside container discharge to ground or surface water	L	M	M/L	• Oils stored in small quantities on site and in dedicated storage cupboard, or on bunded pallet in side the building. • Concrete surfacing prevents discharge into groundwater. • Documented inspection procedure • Spillages outside of the storage container will be dealt with in accordance with the documented spillage procedure.	M/L
Overfilling of fuel tank.	Release of diesel from fuel tank into the bund. No release to surface water unless bunded area is also filled and overflows.	L	L	L	• Storage tank checked daily for integrity and available containment capacity in accordance with documented inspection • Delivery driver instructed to stay with vehicle at all times when discharging fuel into the fuel tank	L
Spillage/ overfilling of Lime during delivery.	Release of lime onto floor and atmosphere	M	L	M/L	• Delivery driver instructed to stay with vehicle at all times, and stop delivery immediately if spillage occurs • High level alarm on tank	L

TABLE 2: WASTE ACCEPTANCE AND STORAGE RISK ASSESSMENT

Hazard	Pathway and Receptor	PROBABILITY OF HAZARD	CONSEQUENCE OF HAZARD	RISK FACTOR (PROBABILITY X CONSEQUENCE)	MITIGATION MEASURES	MITIGATED RISK
Waste deposited outside of the containment area	Litter to surrounding land and surface water courses	L	M	M/L	• All waste vehicles directed by signs and the weighbridge staff • Waste acceptance is within site premises. • All areas of the site outside the specified contained area will be inspected and cleaned as required. • All waste accepted in UN approved containers.	M/L
Storage of waste during planned maintenance shutdown	Spillage of potentially polluting substances to surface water	L	M	M/L	• Plant operatives fully trained and experienced • Spillages dealt with in accordance with documented spillage procedure • Excess waste transferred to a suitable permitted facility. • Waste stored on site in UN approved containers or sealed storage.	M/L
Storage of waste during unplanned maintenance shutdown	Litter to surrounding land and surface water courses	L	L	L	• Spillages dealt with in accordance with documented spillage procedure • Excess waste transferred to a suitable permitted facility. • Waste stored on site in UN approved containers or sealed storage.	L

TABLE 3: WASTE CHARGING RISK ASSESSMENT						
Hazard	**Pathway and Receptor**	**PROBABILITY OF HAZARD**	**CONSEQUENCE OF HAZARD**	**RISK FACTOR (PROBABILITY X CONSEQUENCE)**	**MITIGATION MEASURES**	**MITIGATED RISK**
Waste chute blockage	Spillage of potentially polluting substances to surface water	L	L	L	• Plant operatives fully trained and experienced • Spillages dealt with in accordance with documented spillage procedure • Water retained on site • Fire retained in the incinerator plant	L
Fire in waste chute	Spillage of potentially polluting substances to surface water, Fire water run-off	M	M	M	• Spillages dealt with in accordance with documented spillage procedure • Contaminated water retained on site via closure of penstock valve	M
Spillage during plant maintenance	Spillage of fuel or oils contaminating land and or surface water	L	M	M/L	• Spillages dealt with in accordance with documented spillage procedure	M/L
Fire in the infrastructure area **(See Appendix B – Fire Mgt Plan)**	Release to atmosphere and potentially to land and surface water via fire fighting run-off water	L	M	M/L	• Fuel fires dealt with by using foam or dry powder extinguishers • If Fire Brigade are in attendance, they will determine appropriate fire-fighting techniques • No smoking or naked flames permitted in the fuel and oil storage areas or flare compound • Documented Emergency Procedure in place. • Penstock valve & Drainage covers to contain fire water on site • Interval drains to foul sewer	M/L

TABLE 4: PLANT STOPPAGES						
Hazard	**PATHWAY AND RECEPTOR**	**PROBABILITY OF HAZARD**	**CONSEQUENCE OF HAZARD**	**RISK FACTOR (PROBABILITY X CONSEQUENCE)**	**MITIGATION MEASURES**	**MITIGATED RISK**
Loss of plant/ Power failure/ Damage to plant	Emissions to air	L	M	M/L	• Plant protection system to protect the plant and persons • Emergency relief valve • Emergency shutdown procedure • Routine maintenance checks of plant • Documented inspection procedures • Defect reporting system	M/L
Reagent shortage/ Blockage	Emissions to air	L	L	L	• Documented checks of reagent quantities on site • Short lead times for reagent deliveries • Procedures for removing reagent blockages • Routine inspections of reagent storage and delivery systems • Plant shutdown	L
Severe weather	Emissions to air and water	L	L	L	• Winterisation plans • Waste stored in UN containers • Waste deliveries diversion	L

APPENDIX B

FIRE MANAGEMENT PLAN

This document details the Fire Management Plan (FMP) for SITA Wrexham Healthcare.

FIRES ON SITE

1. Waste is stored on site in dedicated UN approved containers away from heat sources.

2. Good house keeping prevents build up of any operational activity, maintenance activity, canteen and office waste building up on site.

3. Flammable materials are stored in dedicated storage tank, or in a flammable cupboard.

4. Plant Protection System with automatic shutdown of the incineration plant and emergency stop.

5. All fire fighting equipment, fire detection system and fire alarm system routinely checked and maintained.

6. The external yard areas are curbed and the site surface water drainage system can be isolated using the penstock valve indicated on the site drainage plan above. These measures will ensure any fire- fighting run-off water or other potentially polluting liquids are contained on site and do not enter the surface water system.

7. The Fire Service will be contacted to deal with major fire incidents. Site staff will not be deployed to deal with major fires.

8. Site staff will be trained in fire safety awareness and in the use of the site's fire-fighting equipment.

9. Smoking on site is only permitted in designated areas.

10. The Environment Agency will be notified in writing as soon as practicable in the event of a fire occurring on site and identified within 24 hours of the incident.

11. All fire incidents, and the actions taken in response, will be recorded in the shift log.

FIRE EMERGENCY PROCEDURE

PROCEDURE

FIRE ACTION PLAN

ACTION ON DISCOVERING A FIRE

- Activate Fire Alarm
- Only attempt to extinguish the fire if it is safe to do so
- Make way to the Assembly Point, at the corner of the care park
- Evacuate the premises by the nearest safe fire exit
- Inform Team Leader or appointed deputy of details of the fire and its location so they can inform the emergency services

ON HEARING THE FIRE ALARM

- Evacuate premises by the nearest safe fire exit
- The first person passing the in/out boards in the office, and canteen, and the signing in book to take these to the Fire Assembly Point, and assist with the roll call by highlighting those that have evacuated the building
- Make way to the Assembly Point, at the corner of the car park
- Team Leader or appointed deputy to call the Fire Brigade (9) 999
- Team Leader or appointed deputy to account for all employees, contractors and visitors on site
- Team Leader or appointed deputy to give the all clear when it is safe

Fires

- Staff must remain vigilant at all times; remember waste may contain explosive materials e.g. pressurized cans.
- Only use fire extinguishers if you feel confident to do so.
- Fire extinguishers on site should only be used when it is safe to do so e.g. on small fires that can be contained and paper basket size.
- Fire extinguishers must be used in the correct manner only, all site users and contractors **must** be kept at a safe distance.
- If the fire has been dealt with successfully contact your supervisor/manager, record the incident in the accident/incident book and clear any debris as soon as possible.
- The manager/supervisor will arrange for any used extinguishers to be replaced as soon as possible.
- In all other cases the site must be evacuated immediately and the fire brigade contacted. The evacuation of the site must be done in a controlled and safe manner. Follow any instructions given to you by your appointed Fire Wardens.
- Do not allow site access and any persons to enter the site once evacuated
- Keep access routes clear at all time for the emergency services
- Do not re-enter the site but remain at the fire assembly point at the front of the building until you have been told it is safe to do so by the emergency services
- When the incident has been successfully dealt with, a record of the incident must be recorded in the accident/incident book and you must inform your supervisor/manager.
- Please refer to your R1 fire folder for emergency contact details and the fire log book
- If the Fire Brigade attend site and it is safe to do so ensure the Penstock Valve is closed to contain any fire fighting run-off water. The position of the penstock valve is indicated on the site drainage plan above.
- Once the fire has been extinguished and the area has been declared safe, assess the extent of any potentially contaminated water contained on site and seek advice from the Environment Agency/ Water Authority on the most appropriate method of disposal.