

METAL WASTE RECEIPT, TREATMENT AND STORAGE

Morris and Co. (Handlers) Ltd, Top Shed, Neath Abbey Wharf, Skewen, Neath, SA10 6BL

Grid Reference: SS 72785 95866

Risk Assessment for Metal Waste Operation

Table A - Assessment of odour risks

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk?
<i>What has the potential to cause harm?</i>	<i>What is at risk? What do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? If it occurs who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Release of odour from stored dry metal waste – incinerator scrap, aluminum cans and steel cans	Human receptors as detailed in Table 1	Air	Treatment is performed inside a building, All metal wastes are stored inside the building. External storage of degassed containers in sealed containers, although these will not be odorous. Daily checks carried out and general housekeeping performed. Odour management plan to be implemented in the unlikely event of odour becoming an issue. Operation in accordance with EMS.	Very Low Dry metal waste has very low associated odour.	Low Nuisance, loss of amenity; odour annoyance will have more impact in summer when temperatures are higher, however location is remote and immediate industrial neighbours are metal recyclers.	Very Low
Release of odour from fuels or oil	Human receptors as detailed in Table 1	Air	Fuels and oils stored within double skinned or banded tanks and containers. Daily checks carried out and odour management plan to be implemented in the unlikely event of odour becoming an issue. Operational in accordance with EMS.	Very Low	Low Nuisance, loss of amenity; odour annoyance will have more impact in summer when temperatures are higher, however location is remote and immediate industrial neighbours are metal recyclers..	Very Low

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Table B - Assessment of noise and vibration risks

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk?
<i>What has the potential to cause harm?</i>	<i>What is at risk? What do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? If it occurs who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Noise created by mobile plant (FLT's)	Human receptors as detailed in Table 1	Noise through the air and vibration through the ground	Operation in accordance with EMS. Regular maintenance of mobile plant. Machines switched off when not in use. Noise Management Plan in place.	Low	Low Nuisance, loss of amenity, loss of sleep; noise and vibration would have more impact at night. Nearest residents 225m away.	Low
Noise created by baler	Human receptors as detailed in Table 1	Noise through the air and vibration through the ground	Baler inside building and only operated in day time operational hours. Operation in accordance with EMS. Ongoing operator assessment of noise and investigations where noise increases/changes. Noise Management Plan in place.	Medium	Low Nuisance, loss of amenity, loss of sleep; noise and vibration would have more impact at night. Nearest residents 225m away.	Low
Noise created by sorting equipment	Human receptors as detailed in Table 1	Noise through the air and vibration through the ground	Sorting inside building and only operated in day time operational hours. Operation in accordance with EMS. Ongoing operator assessment of noise and investigations where noise increases/changes. Noise Management Plan in place.	Medium	Low Nuisance, loss of amenity, loss of sleep; noise and vibration would have more impact at night. Nearest residents 225m away.	Low

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Table C - Assessment of fugitive emission risks

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk?
<i>What has the potential to cause harm?</i>	<i>What is at risk? What do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? If it occurs who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Release of particulate matter (dust) from stockpiling of dry metal waste – Incinerator scrap, aluminium cans and steel cans	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Treatment is performed inside a building and all metal waste is stored inside the building. The only external storage is degassed cylinders that are stored on an impermeable pavement in a sealed skip. Daily checks carried out and general housekeeping performed. Operation in accordance with EMS. Limited size of stockpiles and waste zero piled at least every 3 months. Dust levels inside building to be monitored.	Low	Low Respiratory irritation and illness	Low
Release of Volatile Organic Compounds (VOCs) from fuel and oil storage areas	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Fuels and oil stored in double skinned or bunded tanks. Standard filling procedures and spillage control procedures in place.	Low	Low Respiratory irritation and illness	Very Low
Contaminated site run-off or processing waters	Groundwater Surface waters Land	Direct run-off from site across ground surface, into lagoon and groundwater Direct run off to land or neighboring surface waters	Waste acceptance and inspection procedures. Treatment is performed inside a building and dry metal waste is stored inside the building. Fuels, oils and lubricants stored in double skinned or bunded tanks. Regular checks and good housekeeping in accordance with EMS. Building has impermeable surface and internal bunding dwarf walls to hold water. Impermeable concrete paving across operational areas, external bays sealed. Uncontaminated site run-off to lagoon and groundwater. Lagoon could be pumped out if contaminated. Water containment system inside building and no external storage of material outside of sealed skips will make direct run off to land or river neath a very low risk.	Very Low	Low Contamination of groundwater	Low

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Litter	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air transport and deposition	Waste types are not usually associated with generation of litter. Waste acceptance/inspection procedures and ongoing operator checks for housekeeping/litter in accordance with EMS. Waste materials stored inside building. Hand sweeping of walkways used where required.	Low	Low Nuisance, loss of amenity, harm to human or animal health	Low
Mud and debris	Human receptors as detailed in Table 1	Vehicles entering and leaving the site	Impermeable concrete paving will reduce mud available for pick-up. Regular inspections of outside yard surface, and regular hand sweeping of walkways where necessary. Good housekeeping in accordance with EMS.	Low	Low Nuisance, loss of amenity, road traffic accidents	Low
Pests (vermin, flies etc)	Human receptors as detailed in Table 1	Air transport and over land	Waste acceptance procedures and compliance with EMS. Waste types unlikely to generate pest issue. Regular operator checks and implementation of pest control measures in the unlikely event of this being identified as an issue.	Very Low Accepted waste types are not readily biodegradable and unlikely to attract vermin or flies	Low Harm to human health, nuisance, loss of amenity	Very Low
Scavenging animals and birds	Human receptors as detailed in Table 1	Air transport and over land	Waste acceptance procedures and compliance with EMS. Waste types unlikely to attract scavenging animals and birds. Regular operator checks and implementation of pest control measures in the unlikely event of this being identified as an issue.	Very Low Accepted waste types unlikely to attract scavenging birds or animals.	Low Harm to human health from waste carried off sites and faeces, nuisance and loss of amenity	Very Low

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Table D - Assessment of accident risks

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk?
<i>What has the potential to cause harm?</i>	<i>What is at risk? What do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? If it occurs who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Fire: Ignition of waste materials causing the release of smoke.	Human Receptors as detailed in Table 1 Ecological sites as detailed in Table 2 Injury to staff or fire fighters.	Air transport of smoke.	Metal waste received only non-combustible metal. Fire Risk assessments and staff training in place. Good housekeeping, stockpile limits, segregation of wastes.	Low	Low Respiratory irritation, illness and nuisance to local population, injury to staff or fire fighters	Low
Fire causing contaminated groundwater or fire fighting water	Groundwater Surface Waters Land	Direct run-off of fire fighting waters from site across ground surface	Building has impermeable surface and internal bunding dwarf walls to hold water. Impermeable concrete paving across operational areas. Uncontaminated site run-off to lagoon and groundwater very low risk. Lagoon could be pumped out if contaminated. Run off to River Neath or land very low risk as distance over 50m and steps in place to prevent pathway to surface waters.	Very Low	Medium Chronic effects: pollution of groundwater requiring treatment of water	Low
Arson and/or vandalism causing the release of polluting materials to air (smoke and fumes)	Human Receptors as detailed in Table 1 Ecological sites as detailed in Table 2 Injury to staff or fire fighters.	Air transport of smoke.	Perimeter fencing and CCTV.	Very Low	High Respiratory irritation, illness and nuisance to local population, injury to staff or fire fighters	Low

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Arson and/or vandalism causing contaminated groundwater or fire fighting waters	Groundwater.	Direct run-off of fire fighting waters from site across ground surface	Building has impermeable surface and internal bunding dwarf walls to hold water. Impermeable concrete paving across operational areas. Uncontaminated site run-off to lagoon and groundwater. Lagoon could be pumped out if contaminated. Run off to River Neath or land very low risk as distance over 50m and steps in place to prevent pathway to surface waters.	Low	Low Chronic effects: pollution of groundwater requiring treatment of water	Low
On-site hazards: wastes, machinery and vehicles	Injury to unauthorised persons	Direct physical contact.	Perimeter fencing and CCTV.	Low	Low Bodily injury.	Low
Spillages or leaks of fuel or oil from storage tanks or plant	Groundwater Surface Waters Land	Direct run-off from site across ground surface	Fuels and oil stored in double skinned or banded tanks. Regular checks on integrity of tanks. Site plant subject to pre-use checks and regular servicing. Standard filling procedures and spillage control procedures in place. Impermeable concrete paving and lagoon can be pumped out if contaminated. Run off to River Neath or land very low risk as distance over 50m and steps in place to prevent pathway to surface waters.	Very Low	Medium Chronic effects: pollution of groundwater requiring treatment of water and emptying of lagoon	Low

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Spillages or leaks of fuel or oil from storage tanks or plant	As above	As above	As above.	Low	Low Chronic effects:pollution of groundwater requiring treatment of water and emptying of lagoon	Low
Contaminated wastes, fuels or oils transported by flood	Human Receptors as detailed in Table 1 Ecological sites as detailed in Table 2 Controlled waters in Table 3	Flood waters	Fuel and oils stored within double skinned or banded tanks and containers. Not in flood risk area.	Low	Low Contamination of buildings, controlled waters and natural habitats downstream.	Very Low

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Identification of Receptors

Table 1 - Human Occupancy

<i>Type of Receptor</i>	<i>Location</i>	<i>Proximity</i>
Commercial/Industrial Premises	Neath Abbey Wharf	10m North
Commercial/Industrial Premises	David Lloyd Swansea	630m West
Receptor	Llandarcy Academy of Sport	800m South West
Residential Properties	Wernandrew Farm	225m North West
Residential Properties	Bay View	515m East

Table 2 - Nature and Heritage Conservation Sites

<i>Name</i>	<i>Type</i>	<i>Proximity</i>	<i>Source</i>
Neath Abbey Wharf	Woodland and Scrub	Less than 50m South	Drawing No12. Habitats
Grassland and Marsh	Local Wildlife Sites	Less than 50m East	Drawing No12. Habitats
Earlswood Road Cutting and Ferry Boat Inn Quarries	SSSI	1,335m south	Grid Ref: SS 728946 – SS 732939
Pant y Sais National Nature Reserve	SSSI	1,982m south west	Grid Ref: SS 712 940

Table 3 - Controlled Waters

<i>Name</i>	<i>Type</i>	<i>Proximity</i>
River Neath	River	60m East
Tennant Canal	Canal	80m West