

METAL WASTE RECEIPT, TREATMENT AND STORAGE

Morris and Co. (Handlers) Ltd, J3 Business Park, Carr Hill, Doncaster, DN4 8DE

Grid Reference: SE 58488 00999

Risk Assessment for Metal Storage and Treatment

Table A - Assessment of odour risks

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Release of odour from shredder residue	Human receptors as detailed in Table 1	Air	Treatment is performed inside a building and on equipment with fully enclosed conveyors. Daily checks carried out and general housekeeping performed. Odour management plan is written and implemented at all times. Operation in accordance with EMS.	Low Shredder residue has very low associated odour. Residential neighbors are over 1200metres from the operation. The site is surrounded by other industrial operations.	Low Nuisance, loss of amenity; odour annoyance will have more impact in summer when temperatures are higher.	Low
Release of odour from fuels or oil	Human receptors as detailed in Table 1	Air	Fuels and oils stored within double skinned or bunded tanks and containers. Daily checks carried out and odour management plan is written and implemented at all times. Operation in accordance with EMS.	Very Low	Low Nuisance, loss of amenity; odour annoyance will have more impact in summer when temperatures are higher.	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?	
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	If it	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Noise created by mobile plant (FLT's, shovel loaders etc.)	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.	Low	Low Nuisance, loss of amenity, loss of sleep, noise and vibration would have more impact at night. Located in industrial area.	Medium	
Noise created by shredder	Human receptors as detailed in Table 1	Noise through the air and vibration through the ground	Shredder partially inside building and open compound. Operation in accordance with EMS. Ongoing operator assessment of noise and investigations where noise increases/changes.	Medium	Low Nuisance, loss of amenity, loss of sleep, noise and vibration would have more impact at night. Located in industrial area.	Medium	

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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?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Release of particulate matter (dust) from loading of infeed	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Waste acceptance/inspection procedures and operation in accordance with Environmental Management System. Ongoing operator checks on dust generation. Waste unloading inside building.	Low	Low Respiratory irritation and illness	Low
Release of particulate matter (dust) from shredding process	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Waste acceptance/inspection procedures and operation in accordance with Environmental Management System. Ongoing operator checks on dust generation. Dust management system inside building.	Low	Low Respiratory irritation and illness	Low
Release of particulate matter (dust) from post-shredding separation and stockpiling of wastes/residues	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Waste acceptance/inspection procedures and operation in accordance with Environmental Management System. Ongoing operator checks on dust generation. Dust management system inside building.	Low	Low Respiratory irritation and illness	Low
Release of particulate matter (dust) from stockpiling of wastes and residues.	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Waste is received inside a building, treatment is performed in a covered conveyor shredder and the residue is taken via conveyor directly into a dedicated bay inside another building. Daily checks carried out and general housekeeping performed. Odour management plan is written and implemented at all times. Operation in accordance with EMS. Limited size of other stockpiles.	Low	Low Respiratory irritation and illness	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?	
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	If it	How likely is this contact?	What is the harm that can be caused?	What is the risk that remains? The balance of probability and consequence.
Release of particulate matter (dust) from flame events	Human receptors as detailed in Table 1 Ecological sites as detailed in Table 2	Air	Operation in accordance with Environmental Management System. Waste acceptance and quarantine procedure in place. Site receiving pre-sorted mixed metals and used beverage cans and therefore no risk from hidden items which might explode.	Medium	Low Respiratory irritation and illness	Low to Medium	
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 banded tanks. Standard filling procedures and spillage control procedures in place.	Low	Low Respiratory irritation and illness	Very Low	
Contaminated site run-off	Groundwater	Direct run-off from site across ground surface, into groundwater	Site external operational areas connect to foul water drainage. Perimeter of site has 800mm deep kerbing to aid containment and water is directed to foul drainage. Waste acceptance and inspection procedures in place. Treatment is performed inside a building or in external areas connected to foul drains. Fuels, oils and lubricants stored in double skinned or banded tanks. Regular checks and good housekeeping in accordance with EMS. Building has impermeable surface and internal downpipes from roof area are covered and protected from being hit by machinery to prevent water mixing with waste in the gutting. Impermeable concrete paving across operational areas. Contaminated storage areas run off to foul sewer.	Very Low	Low Contamination of surface water.	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?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Contaminated site run-off	Groundwater	As above	As above.	Low	Low	Very Low
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. Hand sweeping of walkways used where required. External conveyors from shredder are covered.	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 across site, vehicles will not come into contact with mud. 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, however site regularly monitored in line with Fly Management Plan and thus procedures are in place to monitor the situation. Regular operator checks and implementation of pest control measures (as per Fly Mgt Plan) in the unlikely event of this being identified as an issue.	Very Low	Low Harm to human health, nuisance, loss of amenity	Very 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?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	If it occurs How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Scavenging animals and birds	Human receptors as detailed in Table 1	Air transport and over land	Waste acceptance procedures and compliance with EVAS. 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?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Flame event within shredder causing the release of polluting materials to air (smoke, dust 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 and dust and/or shock waves.	Waste acceptance and inspection procedures in accordance with Environmental Management System. Site receiving pre-treated mix metals and used beverage cans and therefore no risk from hidden items which might explode. Used beverage cans have an extremely low combustibility level (see Fire Prevention Plan).	Low	High Respiratory irritation, illness and nuisance to local population, injury to staff or fire fighters	Low to Medium
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.	As above. Fire Risk assessments and staff training. Good housekeeping, stockpile limits, segregation of wastes. Dust suppression system and fire fighting systems in place (see Fire Prevention Plan).	Low	Medium Respiratory irritation, illness and nuisance to local population, injury to staff or fire fighters	Low
Fire causing contaminated groundwater or fire fighting water	Groundwater	Direct run-off of fire fighting waters from site across ground surface	Building has impermeable surface. Site drainage is connected to foul sewer which can be closed in an emergency. Site has 800mm perimeter walls which hold water before tanker collection (see Fire Prevention Plan). Impermeable concrete paving across operational areas.	Very Low	Medium Chronic effects: pollution of surface water 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, closed gate entrance and CCTV.	Very Low	High Respiratory irritation, illness and nuisance to local population, injury to staff or fire fighters	Low

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Risk Assessment for Metal Storage and Treatment

Table D - Assessment of accident risks

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk?
Arson and/or vandalism causing contaminated surface water or fire fighting waters	Surface water.	Direct run-off of fire fighting waters from site across ground surface	Building has impermeable surface. Site drainage is connected to foul sewer which can be closed in an emergency. Site has 800mm perimeter walls which hold water before tanker collection (see Fire Prevention Plan). Impermeable concrete paving across operational areas.	Low	Low Chronic effects: pollution of surface water requiring treatment of water	Low
On-site hazards: wastes, machinery and vehicles	Injury to unauthorised persons	Direct physical contact.	Perimeter fencing, closed entrance gate and CCTV.	Low	Low Bodily injury.	Low
Spillages or leaks of fuel or oil from storage tanks or plant	Groundwater	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.	Very Low	Medium Chronic effects: pollution of surface water requiring treatment of water	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?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Spillages or leaks of fuel or oil from storage tanks or plant	Groundwater.	As above	As above.	Low	Low Chronic effects: pollution of surface water	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 bunded 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

Type of Receptor	Location	Proximity
Commercial/Industrial Premises	Site is central in an industrial area and there are industrial premises surrounding the site	Closest 10m South
Residential Properties		None within 1km of site
Receptor	Keepmoat Stadium (Doncaster Rovers FC)	800m North

Table 2 - Nature and Heritage Conservation Sites

Name	Type	Proximity
Low Eilers Marsh	Potteric Carr Nature Reserve	750m East
Childers Wood	Potteric Carr Nature Reserve	900m East
Deeoy Marsh	Potteric Carr Nature Reserve	400m East
Loversall Field	Potteric Carr Nature Reserve	900m South East

Table 3 - Controlled Waters

Name	Type	Proximity
River Don	River	1.66 miles West
Division Drain / Carr Lodge Drain	Drain	0.44miles South

Appendix 16 – Waste Types Accepted

SITE DETAILS	
Name of the applicant	Morris and Co. (Handlers) Ltd
Activity address	Unit 21, J3 Business Park, Carr Hill, Doncaster, DN4 8DE
National grid reference	SE 58488 00999

EWC Codes	Waste Description
020110	Waste metal
120101	Ferrous metal fillings and turnings
120103	Non-ferrous metal filings and turnings
150104	Metallic packaging
160214	Discarded equipment other than those mentioned in 160219 to 160213
170401	Copper, Bronze, Brass
170402	Aluminum
170403	Lead
170404	Zinc
170405	Iron and Steel
170406	Tin
170407	Mixed metals
170411	Cables other than those mentioned in 170410
190102	Ferrous materials removed from bottom ash
191001	Iron and steel waste
191002	Non-ferrous waste
191006	Other fractions other than those mentioned in 191005
191202	Ferrous metal
191203	Non-ferrous metal
191212	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 191211
200140	Metals

