Generic risk assessment for standard rules set number SR2008No21 v4.0

Standard Facility:	Waste Operation: Metals Recycling Site
Location:	Applies to all potential locations.
Location of environmentally sensitive sites (km / m):	Greater than 200m (see below)
Risk assessment carried out by:	Environment Agency
Date:	28-Jul-10

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage of waste (R13) and treatment consisting only of sorting, separation, grading, shearing, shredding, baling, compacting, crushing, granulating and cutting ferrous metals or alloys and non-ferrous metals . into different components for recovery (R4)
Parameter 2	Permitted waste types - Ferrous metals or alloys and non-ferrous metals
Parameter 3	Quantity of waste accepted at the facility: <75,000 tonnes per annum.
Parameter 4	Lead acid batteries shall be stored in containers with an impermeable, acid resistant base and a lid to prevent ingress of water.
Parameter 5	All waste shall be treated on an impermeable surface with sealed drainage system.
Parameter 6	All waste shall be stored on an impermeable surface with sealed drainage system, except for uncontaminated ferrous metals wastes or alloys and uncontaminated non-ferrous metal wastes which shall be stored on hardstanding or an impermeable surface with sealed drainage system.
Parameter 7	The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings and from areas of the facility not used for the storage or treatment of wastes.
Parameter 8	The permitted activities shall not be carried out within 500m of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI).

Abbreviations:

SR - Standard Rule
SR (emissions of substances not controlled by emission limits) - emissions of substances .... shall not cause pollution…., with appropriate measures:
all treatment …. on an impermeable surface with sealed drainage system;
all storage …. on an impermeable surface with sealed drainage system, except for uncontaminated …..metals….
on hard standing or on impermeable surface with sealed drainage;
lead acid batteries …. in containers with an impermeable, acid resistant base and a lid ....

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**

Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	**Medium**	Permitted waste types do not include …. dusts, powders or loose fibres so only a medium magnitude risk is estimated. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees)	SR - emissions of substances not controlled by emission limits.... SR (if required) - emissions management plan.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust.	As above	Very low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Medium	Medium	**Medium**	Local residents often sensitive to litter.	As above. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site.	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads.	As above. Appropriate measures could include clearing waste, litter and mud arising from the activities from affected areas outside the site.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	**Low**	Local residents often sensitive to odour, however permitted waste types have low odour potential.	SR - emissions shall be free from odour…. SR (if required) - odour management plan.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Medium**	Local residents often sensitive to noise and vibration	SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan.	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	SR - emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Permitted wastes unlikely to attract pests.	As above	Very low

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Permitted waste types washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	SR - management system (will include flood risk management).	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Site security measures at these facilities are normally good to prevent theft. Apart from lead acid batteries, all permitted waste types are non hazardous, so only a medium magnitude risk is estimated.	SR - activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access).	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Medium	**Medium**	As above.	As above. SR - management system (will include fire and spillages).	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Low	Medium	**Low**	Risk of accidental combustion of waste is low.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	**Low**	Apart from lead acid batteries and liquid residues, all permitted waste types are non hazardous solids so only a low magnitude risk is estimated. There is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	SR - All liquids shall be provided with secondary containment.... (applies to wastes and non-wastes such as fuels). Run-off restricted by SR (emissions of substances not controlled by emission limits).	Very low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Low	**Low**	As above. Harm is likely to be temporary and reversible.	As above	Low

Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	**Low**	As above. Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above	Very low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	There is a potential for contaminated rainwater run-off or leakage from permitted waste types.	As above	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur, but might restrict recreational use.	SR - emissions of substances not controlled by emission limits....SR (if required) - emissions management plan.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	**Low**	Waste operations may cause harm to and deterioration of nature conservation sites.	SR - activities shall not be carried out within 500m of a European Site or SSSI. (Distance criteria as agreed with Natural England/Countryside Council for Wales).	Low

Notes: Red triangle indicates comment containing supporting information
Yellow columns contain drop down menus that allow automatic evaluation of risk in green column