

DGT BW08 Environmental Risk Assessment based on the SR2015No14 Metals Recycling Facility ERA

Bespoke Facility:

Waste Operation: Metals Recycling Site

Location:

DGT, Brewins Way, Off Narrowboat Way, Dudley, DY5 1UF

Location of environmentally sensitive sites (km / m):

Greater than 50m (see below)

Risk assessment carried out by:

H&C Consultancy Ltd on behalf of the Operator

Date:

14-Jun-21



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 of sorting, separation, grading, washing, drying, 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, including metals from the incineration of bottom ash and slags
- Parameter 3 Quantity of waste accepted at the facility: <75,000 tonnes per annum.
- Parameter 4 All waste shall be treated on an impermeable surface with sealed drainage system.
- Parameter 5 All waste will be treated within a building designed to process the waste types
- Parameter 6 All waste will be stored on an impermeable surface with sealed drainage system
- Parameter 7 All waste stored outside the building will be covered by a roof system
- Parameter 8 Water fed dust suppression system will be installed on site
- Parameter 9 The dryer is fed by a mains powered boiler
- Parameter 10 The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings
- Parameter 11 The activities are not be carried out within 50m of any well spring or borehole used for the supply of water for human consumption. This must include Private

Abbreviations:

- BP - Bespoke permit
- BP (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;

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)	BP - emissions of substances not controlled by emission limits. Dust Management Plan submitted with the permit application	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.	BP - emissions of substances not controlled by emission limits. Dust Management Plan submitted with the permit application	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.	Types of wastes accepted on site do not include light wastes such as paper or plastics. Office and canteen wastes stored in suitable containers. BP - emissions of substances not controlled by emission limits. BP (if required) - emissions management plan. Appropriate measures could include clearing litter arising from the activities	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.	Wheel wash facility to be installed on site. Vehicles netted or wastes contained in container when arriving or leaving the site. BP - emissions of substances not controlled by emission limits. Dust Management Plan submitted with the application. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site. Roadweeper	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.	BP - emissions shall be free from odour. BP (if required) - odour management plan. The waste types accepted on site do not include biodegradable wastes.	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	BP - emissions shall be free from noise and vibration. BP (if required) - noise and vibration management plan. Noise impact considered as part of the planning application to Dudley MBC Planning Authority, no mitigation measures required. All plant and equipment will be maintained as required, noise checks will be undertaken on site by an Authorised Person and findings recorded within the daily site	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.	BP - emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution. Incoming waste types do not contain biodegradable material so unlikely to attract pests. Metal stockpiles are not associated with nesting sites due to the composition and	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.	BP - emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution. Incoming waste types do not contain biodegradable	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.	BP - management system (will include flood risk management). The site is not located within a flood risk zone.	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. All permitted waste types are non hazardous, so only a medium magnitude risk is estimated.	BP - activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access). Security infrastructure including gates and fences to be checked daily and the checks recorded in the site diary. CCTV cameras, both visual and heat detections systems will be installed on site. The system will report to mobile phones and	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	Site security measures at these facilities are normally good to prevent theft. All permitted waste types are non hazardous, so only a medium magnitude risk is estimated.	As above. BP - management system (will include fire and spillages). Fire Prevention Plan submitted with the application. Security measures including secure fencing, gates, CCTV and heat detection cameras on site.	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. Fire Prevention Plan submitted with the application. Security measures including secure fencing, gates, CCTV and heat	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	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.	BP - All liquids shall be provided with secondary containment (applies to wastes and non- wastes such as fuels). Run-off restricted by BP (emissions of substances not controlled by emission limits). Excess water not used on site will be discharged to foul sewer via a discharge consent issued by Severn Trent Water.	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	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. Harm is likely to be temporary and reversible.	BP - All liquids shall be provided with secondary containment (applies to wastes and non- wastes such as fuels). Run-off restricted by BP (emissions of substances not controlled by emission limits). Excess water not used on site will be discharged to foul sewer via a discharge consent issued by Severn Trent Water.	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	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. Harm is likely to be temporary and reversible. Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	BP - All liquids shall be provided with secondary containment (applies to wastes and non- wastes such as fuels). Run-off restricted by BP (emissions of substances not controlled by emission limits). The outdoor storage areas are covered which prevents rain water passing through the waste and entering the surface water system. Excess water not used on site will be discharged to foul sewer via a discharge consent issued by Severn Trent Water.	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.	BP - All liquids shall be provided with secondary containment (applies to wastes and non- wastes such as fuels). Run-off restricted by BP (emissions of substances not controlled by emission limits). The outdoor storage areas are covered which prevents rain water passing through the waste and entering the surface water system. Excess water not used on site will be discharged to foul sewer via a discharge consent issued by Severn Trent Water.	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastrointestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	BP - emissions of substances not controlled by emission limits BP (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.	An ecological appraisal has been carried out on behalf of the the Operator (DGT BW06e). A habitats screening assessment will be carried out by the EA as part of the application process.	Low
Local human population and all surface waters close to and downstream of site.	Serious Fire	Nuisance, harm to human health, loss of amenity, deterioration of water quality	Air transport then inhalation or deposition. Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. Impact on health and amenity can be significant for many days or weeks.	BP - Limit in BP of annual tonnage to be less than 75,000 tonnes. Requirement for Fire Prevention Plan which will limit storage times of waste	Low
All surface waters close to and downstream of site.	Serious Fire	Loss of amenity, deterioration of water quality	Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. In event of fire, fire water can be produced for days/ weeks. Contaminated firewater run-off can kill fish and aquatic life.	Fire Prevention Plan submitted with the application. Measures include no burning of waste on site, waste stored within fire bays, waste storage times limited on site. Security measures including secure fencing, gates, CCTV and heat detection cameras on site, etc.	Low