Application to Vary Waste Permit EPR/SP3196ZQ

794-ENV-EPC-20766

Environmental Risk Assessment

Calder Valley Skip Hire Ltd

794-ENV-EPC-20766
Calder Valley Skip Hire
Environmental Risk
Assessment
2
1
21/08/2024

rpsgroup.com

Document status

Version	Revision	Authored by	Reviewed by	Approved by	Review date
1	0	Lewis Downey	Jennifer Stringer	-	25 March 2024
1	1	Lewis Downey	Joe Sawrij	n/a	27 March 2024
2	0	Lewis Downey	n/a	Jennifer Stringer	28 March 2024
2	1	Roger Newman	Jennifer Stringer		21 August 2024

Approval for issue

Jennifer Stringer	Technical Director		21 August 2024

File Name

240821 R 20766 CVSH WTS Environmental Risk Assessment V2 R1

Prepared by:

RPS

Roger Newman
Principal Environmental Consultant

3 Sovereign Square
Sovereign Street
Leeds LS1 4ER

T +44 1132 206 190
E roger.newman@rps.tetratech.com

Prepared for:

Calder Valley Skip Hire Limited

Joe Sawrij
Rochdale Road, Sowerby Bridge
Halifax, HX6 3LL

Contents

Tables

1 INTRODUCTION

1.1.1 This Environmental Risk Assessment has been carried out in support of an application for an application to vary the environmental permit EPR/SP3196ZQ. It includes an assessment of the risk to the environment and human health from the activities carried out on site.

1.1.2 This proposed variation seeks to add EWC waste codes 19 10 03* and 19 10 05*, relating to metal shredder residues, known as fragmentisation fluff, or frag fluff, in the list of wastes permitted at Calder Valley Skip Hire (CVSH) Waste Transfer Station (WTS) at Rochdale Road, Sowerby Bridge, Halifax, HX6 3LL.

1.1.3 The fragmentisation fluff will be delivered and stored within the WTS building. The waste stream will then be sorted by hand and by mechanical means to separate plastic and metal form the waste. Metal and plastic fractions removed from the fragmentisation fluff will be subject to a WM3 test[1] to demonstrate that they are non-hazardous prior to transfer to the external metals container and external plastics container respectively. Residual fragmentisation fluff will be stored separately and mixed with non-hazardous general waste only if determined to be non-hazardous by application of a WM3 test. There will be no change in the permitted activities taking place on the site.

1.1.4 While awaiting the outcome of WM3 tests, the sorted fractions of fragmentisation fluff – metal, plastic and residual fluff fractions – will be stored under cover in metal containers outside the western end of the WTS building. Should any fraction of the fragmentisation waste remain hazardous following the application of the WM3 test, it will remain segregated in the metal container for bulking prior to onward transport to an appropriate facility for processing or disposal.

1.1.5 The Environment Agency's 'Risk Assessments for your environmental permit' covers a range of environmental risks. Those aspects relevant to the operation of the proposed Calder Valley WTS are covered within the following sections.

1.1.6 Section 2 provides the environmental risk assessment of 'Amenity and Accident' hazards associated with the CVSH WTS. This document provides the relevant risk assessments covering these aspects.

1.1.7 There are no process emissions to land, air, water or sewer from CVSH WTS and the existing permitted activities will remain unchanged by this application to vary the permit.

[1] Waste classification technical guidance - GOV.UK (www.gov.uk)

2 ENVIRONMENTAL RISK AND EFFECTS

2.1.1 This section provides an assessment of risks to environmental amenity and from accidents that could arise from operations at the CVSH WTS. The assessment has been completed in accordance with the EA's 'Risk Assessments for your environmental permit'1.

2.1.2 The scope of the assessment has covered the following aspects:

- Odour,
- noise and vibration,
- fugitive emissions,
- visible emissions,
- accidents.

2.1.3 The fugitive emissions section covers fugitive emissions to water and fugitive emissions of VOCs and ammonia to air.

2.1.4 For each of the above, the approach to the assessment has followed the following four stage process:

1. identify the hazards,
2. assess the risks (assuming that any control measures proposed are in place),
3. choose appropriate further measures to control these risks (if required),
4. present the assessment of overall risk.

2.1.5 Results of the assessment are provided in the following tables.

Table 2.2 Assessment of odour risks

Table 2.3 Assessment of noise and vibration risks

Table 2.4 Assessment of fugitive emission risks

Table 2.5 Visible emissions

Table 2.6 Accidents risk assessment and management plan

2.1.6 The risk assessment methodology has used a scoring mechanism whereby scores are assigned to:

- the likelihood of the hazard occurring; and
- the consequence of the hazard to the environment or human health.

2.1.7 Scores are assigned as low, medium or high.

2.1.8 The risk assessment has been completed by scoring the hazard areas outlined above using a risk matrix as shown in Table 2.1 below:

2.1.9 In completing the assessment, prevention and proposed control measures proposed by CVSH are assumed to be in place. Where relevant, details of these measures are identified within the assessment.

Table 2.1: Risk Matrix

Consequence	Probability			
	High	Medium	Low	Very Low
High	High	Medium	Low	Low
Medium	Medium	Medium	Low	Very Low
Low	Low	Low	Low	Very Low
Not significant	Low	Very Low	Very Low	Very Low

Table 2.2: Odour risk assessment and management plan

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.
Odour emissions from the WTS	Local residents (nearest receptor approx. 100 m from the permit boundary) Industrial receptor (nearest approx. 0 m from the permit boundary)	Air	The wastes to be received under the new waste codes have a low odour risk and their sorted fractions similarly will have a low odour risk. Fragmentisation fluff is currently accepted under non-hazardous waste codes. The changes sought by this variation will, therefore, not change the odour potential of the WTS. The measures in place at the site to prevent and manage releases of odour include storing waste inside a building with fast-acting roller shutter doors, implementation of non-conforming waste procedures and good housekeeping procedures. Site staff will be present during operating hours when wastes are being accepted at the site. If a particularly odorous waste is identified, it will be rejected and sent off site. In the event of a complaint, the complaints procedure is followed to record and act on the complaint and instigate appropriate action.	Low	Low	Low

Table 2.3: Noise and vibration risk assessment and management plan

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.
Noise from operation of the WTS	Local residents (nearest receptor approx. 100 m from the permit boundary) Industrial receptor (nearest approx. 0 m from the permit boundary)	Air	There is no additional noise risk from the reclassification of the fragmentisation fluff as hazardous under this permit variation. The waste stream is currently accepted under non-hazardous waste codes. There will be no change to the throughput, number of deliveries and collections, or hours during which deliveries take place. Noise levels from the operation of the WTS, including loading/unloading waste, are to have a negligible significant adverse effect at sensitive receptors. No additional noise mitigation was deemed necessary due to the intended variation. The WTS will only be operated during the day. In the event of a noise complaint, the complaints procedure is followed to record and act on the complaint and instigate appropriate action. The WTS has an approved Noise Management Plan (NMP) by the local planning authority with the objective of limiting, so far as practicable, noise arising from the activities at the site. The Local Planning Authority and Environmental Agency have both approved the NMP for the site. It is, therefore, deemed unnecessary to incorporate it into this permit variation since there will be no change to the noise risk from the site.	Low	Low	Low
Vibration from the WTS	Local residents (nearest receptor approx. 100 m from the permit boundary) Industrial receptor (nearest approx. 0 m from the permit boundary)	Land	There are no significant sources of vibration from the WTS operations and management of vibration is therefore not relevant. This will not change as a result of this variation.	n/a	n/a	Low

Table 2.4: Fugitive emissions risk assessment and management plan

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.

Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
To Air						
Dust from waste deposits and handling	Local residents (nearest receptor approx. 100 m from the permit boundary) Industrial receptor (nearest approx. 0 m from the permit boundary)	Air	There is no change to the risk of dust from the reclassification of the fragmentisation fluff as hazardous under this permit variation. The waste stream is currently accepted under non-hazardous waste codes. The controls detailed in the approved Dust Management Plan will continue to apply. The Dust Management Plan for the site sets out the control measures to be put in place at the site to minimise emissions of dust from associated operations at the WTS. Routine checks are carried out to identify visual evidence of dust off-site from the waste treatment activities. These inspections are carried out daily and recorded on the daily inspection sheet. In the event of a complaint, the complaints procedure is followed to record and act on the complaint and instigate appropriate action. The WTS has an approved Dust Management Plan (DMP) by the local planning authority with the objective of limiting, so far as practicable, noise arising from the activities at the site. The Local Planning Authority and the Environmental Agency have both approved the NMP for the site. It is, therefore, deemed unnecessary to incorporate it into this permit variation since there will be no change to the dust risk from the site.	Low	Low Nuisance, dust on windows, cars etc.	Low
To Water						
Run off from waste storage	The river Ryburn, via surrounding drains	Ground / surface drains	The fragmentisation fluff received under the new waste codes will be stored inside the WTS building pending sorting. Sorted fractions will only be stored externally if demonstrated to be non-hazardous by applying the WM3 test. Therefore, there will be no run-off from storage of hazardous waste fractions. Sorted fractions of fragmentisation fluff awaiting the outcome of WM3 testing will be stored separately, externally, undercover in metal containers.	Low	Low – surface water/groundwater contamination	Very low
Litter						
Waste release from storage	Local residents (nearest receptor approx. 100 m from the permit boundary) Industrial receptor (nearest approx. 0 m from the permit boundary)	Windblown to air	There will be no change to the processing of "frag waste" at the site. Hazardous frag waste will be delivered and stored within the WTS building. Any hazardous separated fractions will be stored externally in separate metal containers, undercover, at the western end of the WTS building.. Any waste spilled outside the designated storage area will be promptly cleaned up and returned to the hazardous storage area. All departing vehicles will be enclosed or covered before leaving the site. Good housekeeping procedures are in place to ensure that any unexpected spillage would be cleaned up immediately.	Low	Low/medium Nuisance to local receptors	Low
Pests						
Flies and other pests or vermin in waste storage areas	Local residents (nearest receptor approx. 100 m from the permit boundary) Industrial receptor (nearest approx. 0 m from the permit boundary)	Air	The additional waste codes will be unlikely to attract pests or vermin. All wastes are stored within the existing WTS building, which has fast-acting roller shutter doors and to which access and egress is monitored. Pest control measures are applied on site in accordance with recommendations from a specialist pest control advisor.	Low Good site management procedures should prevent this occurring.	Low Nuisance	Low

Table 2.5: Visible emissions risk assessment and management plan

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.**
Delivery Trucks	Local residents (nearest receptor approx. 100 m from the permit boundary)	Visual	The site is already receiving fragmentisation fluff, there will be no rise in the number of delivery trucks to the site, as a result of this variation since the quantity of waste accepted will remain the same.	Low	Low	Low

	Industrial receptor (nearest approx. 0 m from the permit boundary)					

Table 2.6: Accidents risk assessment and management plan

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.
Storage of waste and risk of loss during delivery or transfer	Water and land	Site drainage system or direct contact with land	Fragmentisation fluff will be delivered and stored within the WTS building. All vehicles leaving the site will be enclosed or securely sheeted. Sorted fractions of fragmentisation fluff, that remain hazardous or that are awaiting the result of a WM3 test will remain segregated in separate metal containers located in a covered area, outside, at the western end of the WTS building. Only sorted fractions that are deemed non-hazardous by the outcome of a WM3 test will be stored externally with other non-hazardous waste. A site spill procedure is in effect and will be executed in the event of any waste spillage during delivery or transfer off-site. Incidents will be recorded and investigated appropriately according to the site incident procedure. Significant incidents will be reported to the EA in accordance with the requirements of the permit.	Very Low	Low	Very low
Fire in waste storage areas causing emissions to air	Air	Direct release of waste combustion gases to air	The facility has been designed such that the waste storage is physically separate from ignition sources. There will be no change to quantities of wastes as a result of this variation. Site operational staff members supervise and assist in the unloading of vehicles. Any non-permitted waste identified during the unloading is placed within a suitable quarantine container for disposal as soon as is reasonably practicable. Fire protection systems will be in place in accordance with those set out in the fire prevention plan (FPP). The quarantine area is large enough to hold 50% of the largest pile of waste stored on site, although it is unlikely that this would be required. This allows the isolation and extinguishing of fires or prevents the spread of fire. Fire Emergency Procedures are in place for the site and have been updated to include the operation of the drying plant.	Low	Low / Medium Uncontrolled release of combustion gases to air – impacts likely to be short term	Low
Failure to contain firewater	The river Ryburn, via surrounding drains	Surface water drainage system	Measures are in place to protect against a fire. Fire response systems should ensure a rapid response thereby addressing the fire at the earliest point to avoid fire spread and therefore minimising the potential volumes of fire water. Firewater containment systems will be in place. A fire prevention plan (FPP) is included with the variation application and sets out the measures proposed for fire prevention as well as those measures for firefighting and containment and management of firewater.	Low	Medium	Low
Vandalism	Air/water/land	Various	A 2 m security fence surrounds the site, vehicle access to the site is controlled via the main gate. A public footpath runs through the site. However, users are required to remain on the footpath route and are not permitted to stray into the operational waste transfer station area. During working hours, the site is manned. Outside of these hours the WTS building in which the wastes will be stored will be locked shut and alarmed. CCTV cameras are in operation providing 24-hour coverage.	Low due to security measures in place	Low to Medium depending on nature of the event. Potential contamination of local water course/air/land and/or local nuisance depending on nature of event.	Low, given the very low probability of any unauthorised access to the site
Flooding	The river Ryburn, via surrounding drains, structures on site; neighbouring land	Surface water drainage system	Flood risk has been addressed in a Flood Risk Assessment which was prepared to support the planning application and concluded that there is a low to medium risk of flooding from surface water and negligible to low risk of flooding from reservoirs. The principal risk of flooding is considered to be fluvial flooding from the nearby River Ryburn. The FRA concluded that the proposed development would be safe from flooding and that it would not increase flood risk elsewhere. Waste within the WTS building will be stored 300mm above the existing ground level. In all other respects, the site layout and storage facilities for wastes will not change and are designed to ensure all materials are contained and in the event of a flood, contact with flood water is minimised and materials would not be released.	Low	Medium Potential contamination of flood waters.	Low

3 CONCLUSIONS

3.1.1 The environmental risk assessment (ERA) report has been undertaken to assess the likelihood of risk from amenity and accidents associated with the reclassification of fragmentisation fluff at the Calder Valley WTS.

3.1.2 The results of the ERA have shown that the risk of odour, noise and vibration, visible emissions, fugitive emissions, and accidents range from ‘not significant’ to ‘low’. There is to be no change to the risk of the site as a result of the inclusion of the EWC codes 19 10 03* and 19 10 05*.

REFERENCES

Environment Agency (2020), Risk assessments for your environmental permit. Available online: https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit