

ENVIRONMENTAL RISK ASSESSMENT – H1 PART 1

Name of Operator	Tarmac Limited
Name of Site	Hendy Recycling
Permit Application Number	N/A

Are you considering all the risks from your site?	Yes –including an the increase in the current Permitted Area with regard to treatment activities
If relevant, what is the set of standard rules that you are close to meeting?	SR2009No6
What risks or receptors are different between your proposals and the standard rules?	The proposed Variation to the Permit boundary places the site within 500m of the Ely Valley SSSI
What is the reference number for the plan showing your site and the receptors and hazards?	CE-HN-0488-DW03 – Risk Assessment Study Area

Table CE-HN-0488-RP01-T10 Accidents Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Accidents						
Leak from the waste oil / diesel storage tank stored on Site (including overfilling and from vandalism etc)	Ely Valley SSSI and Ely River from 315m S of the PVB	Via surface water drainage system	All on site vehicles will be inspected on a daily basis before operation to identify any leaks which will be dealt with accordingly. All tanks will be stored in accordance with PPG2: Above ground oil storage tanks and Control of Pollution (Oil Storage) (England) Regulations 2001 All tanks will be double banded and capable of storing 110% of the tanks volume. The quantity and void space in the tank will be measured and maintained accordingly and the integrity of the tank will be routinely checked and maintained. Refuelling, loading and unloading will be undertaken in accordance with documented filling and emptying procedures and any spillages will be dealt with as per the sites 'spillage' procedure and contingency plan which includes the availability on site of oil absorbent material (e.g. '3M Oil-Sorb' or similar) to cope with a loss of fuel equal to the total fluid content of the largest item of mobile plant. All site staff will be trained in the relevant procedures on site. The operational procedures on site form part of the sites EMS.	Very Unlikely	Potential Contamination of local water courses and underlying groundwater	Not significant
	Ditch fed by spring approx. 250m SE of the PVB			As above		As above
	Various ponds/lakes from 115m to the NE of the PVB	As above		As above	As above	As above
	Underlying groundwater	As above		As above	As above	As above

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Table CE-HN-0488-RP01-T10 Accidents Risk Assessment and Management Plan

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Accidents						
Fires on Site from plant and equipment (including arson and/or vandalism causing the release of polluting materials to air (smoke or fumes), water or land)	Staff, visitors, other personnel on Site, local human population, plant and equipment.	Air transport of smoke. Spillages and contained firewater by direct run-off from Site and via surface water drains and ditches.	On Site plant and equipment will be maintained on a regular basis to ensure it is working effectively to minimise the risk of fire. The whole site is secured outside operational hours. Fire extinguishers are located on Site and all Site staff are trained in the event of a fire using the fire fighting equipment available. If deemed necessary the fire brigade will be contacted.	Unlikely	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals.	Not significant if carefully managed.
	Ely Valley SSSI and Ely River from 315m S of the PVB			As above	Pollution of water.	As above
	Ditch fed by spring approx. 250m SE of the PVB			As above	As above	As above
	Various ponds/lakes from 115m to the NE of the PVB	As above		As above	As above	As above
	Underlying groundwater	As above		As above	As above	As above

Table CE-HN-0488-RP01-T9 Fugitive Emissions Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Pests and vermin						
Pests and Vermin			The inert nature of the waste materials accepted at the Site are considered unattractive to pests, including birds, vermin and flies etc, the risk from pests is considered zero and therefore this section has not been addressed further.			
Litter						
Litter			The risk of litter arising from the site and polluting the surrounding environment is unlikely due to the nature of the site activities and proposed wastes to be accepted at the Site, however site inspections for the presence of material will be carried out on a regular basis as part of the Site operations and in the unlikely event of litter being found, litter pickers will be employed on site to remove the material.			

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Table CE-HN-0488-RP01-T9 Fugitive Emissions Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Fugitive Emissions - Mud and Debris						
Cont'd... Mud and debris being liberated beyond the Permit Variation Boundary	Allygawrddu (remains of monestry) circa. 60m SE of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	Railway circa. 347m SW of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	Various Public Footpaths from 30m S of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	A4119 road circa. 70m W of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	School Road circa. 200m NW/N of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	Ely Valley SSSI and Ely River from 315m S of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	Ditch fed by spring approx. 250m SE of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	Various ponds/lakes from 115m to the NE of the PVB				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	
	Underlying groundwater				Not considered a sensitive receptor with regard to mud and debris therefore has not been addressed any further.	

Table CE-HN-0488-RP01-T9 Fugitive Emissions Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Fugitive Emissions - Mud and Debris						
Mud and debris being liberated the Permit Variation Boundary	Public House off A4119, circa. 120m ENE of the PVB	Transportation of mud and debris from the Site on the under carriage and wheels of vehicles exiting the site	A wheel wash is located on Site and the length of surface exit road from the Site makes it unlikely for mud and debris to affect the local highways. As part of the daily inspection regime, the site will be visually inspected for the presence of mud and debris. Should the adjacent public highway become muddy a road sweeper will be hired on an as and when basis. Any complaints received at the site about mud and debris will be monitored and logged in accordance with the EMS procedures in place.	Unlikely	Perceived nuisance rather than actual harm.	Not significant if carefully managed.
	Residential properties in Miskin, closest off The Chesnuts lane, approx. 200m SW of the PVB			As above	As above	
	Tynwydd dwellings and Gwendoline Cottages from 315m ESE of the PVB			As above	As above	
	Vehicle Testing Centre circa 245m NE of the PVB	As above	Should the adjacent public highway become muddy a road sweeper will be hired on an as and when basis. Any complaints received at the site about mud and debris will be monitored and logged in accordance with the EMS procedures in place.	As above	As above	As above
	Residential Properties in Hendy circa. 300m NW of the PVB	As above		As above	As above	As above
	Mwyndy House circa. 360m NE of the PVB	As above	As above	As above	As above	As above
	Industrial unit circa. 422m NE of the PVB	As above	As above	As above	As above	As above
	Crofta village circa. 445m SE of the PVB	As above	As above	As above	As above	As above
	Glyn Park (cricket ground) circa. 338m S of the PVB	As above	As above	As above	As above	As above
	Agricultural land on the S and W PVB	As above	As above	As above	As above	As above

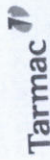


Table CE-HN-0488-RP01-T9 Fugitive Emissions Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Fugitive Emissions - Water						
Flood water and contaminated surface water runoff coming into contact with waste material	Ely Valley SSSI and Ely River from 315m S of the PVB	Direct runoff from Site across ground surface, via surface water drains etc.	The Site is not located in flood zone. Permitted wastes are inert; therefore in the event that flood or surface water comes into contact with the wastes no pollution or contamination is considered likely. In addition no sludges or liquids will be accepted on the Site.	Unlikely	Acute effects: oxygen depletion, fish kill and algal blooms.	Not significant if carefully managed
	Ditch fed by spring approx. 250m SE of the PVB			As Above	Increased suspended solids	
	Various ponds/lakes from 115m to the NE of the PVB			As Above	As Above	As Above
	Underlying groundwater	Percolation through the ground		As Above	As Above	As Above

Table CE-HN-0488-RP01-T9 Fugitive Emissions Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Fugitive Emissions - Air						
Cont'd... Dust from vehicle movements and treatment operations on the Site	Agricultural land on the S and W Permit Variation Boundary (PVB)					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Allgawrddu (remains of monestry) circa. 60m SE of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Railway circa. 347m SW of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Various Public Footpaths from 30m S of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	A4119 road circa. 70m W of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	School Road circa. 200m NW/N of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Ely Valley SSSI and Ely River from 315m S of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Ditch fed by spring approx. 250m SE of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Various ponds/lakes from 115m to the NE of the PVB					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.
	Underlying groundwater					Not considered a sensitive receptor with regard to fugitive emissions therefore has not been addressed any further.

Table CE-HN-0488-RP01-T9 Fugitive Emissions Risk Assessment and Management Plan

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Fugitive Emissions - Air	Dust from vehicle movements and treatment operations on the Site	Public House off A4119, circa. 120m ENE of the Permit Variation Boundary (PVB)	Vehicle movements have the potential to emit particulates particularly during prolonged dry periods e.g. summer months. Procedures to prevent dust emissions include the following: All potentially dusty loads will be asked to be covered/sheeted and all on-Site vehicles will be limited to speeds of ≤10 mph. During high winds or similar adverse weather conditions all deposits of dusty loads and treatment will be stopped at the Site until favourable weather conditions resume, unless sufficient dust suppression is available. Failure to comply with Site instructions regarding the above will result in the driver being warned and they may risk exclusion from the Site until further notice. If on-site conditions become dusty, a water bowser will be used on the Site access road and the working areas where required. Should the adjacent public highway become muddy a road sweeper will be hired on an as and when basis' No complaints have been made to date. In the event of a complaint received about fugitive emissions will be logged in accordance with the Sites EMS procedures.	Unlikely due to the distance to the receptors.	Perceived nuisance rather than actual harm. Potential harm to human health - respiratory irritation and illness.	Not significant if carefully managed.
		Residential properties in Miskin, closest off The Chesnuts lane, approx. 200m SW of the PVB		As above	As above	As above
	Tynenydd dwellings and Gwendoline Cottages from 315m ESE of the PVB	As above		As above	As above	As above
	Vehicle Testing Centre circa 245m NE of the PVB	As above		As above	As above	As above
	Residential Properties in Hendy circa. 300m NW of the PVB	As above		As above	As above	As above
	Mwynndy House circa. 360m NE of the PVB	As above		As above	As above	As above
	Industrial unit circa. 422m NE of the PVB	As above		As above	As above	As above
	Crofta village circa. 445m SE of the PVB	As above		As above	As above	As above
	Glyn Park (cricket ground) circa. 338m S of the PVB	As above		As above	As above	As above

Table CE-HN-0488-RP01-T8 Noise Risk Assessment and Management Plan – Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Noise and Vibration						
Cont'd... Engine Noise from vehicles entering and exiting the Site and treatment of waste etc, includes reversing bleepers Continued	Alllygawrddu (remains of monestry) circa. 60m SE of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	Railway circa. 347m SW of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	Various Public Footpaths from 30m S of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	A4119 road circa. 70m W of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	School Road circa. 200m NW/N of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	Ely Valley SSSI and Ely River from 315m S of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	Ditch fed by spring approx. 250m SE of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	Various ponds/lakes from 115m to the NE of the PVB				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	
	Underlying groundwater				Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.	

Table CE-HN-0488-RP01-T8 Noise Risk Assessment and Management Plan

Hazard	Receptor	Pathway	Risk Management		Probability of Exposure	Consequence	What is the Overall Risk
Engine Noise from vehicles entering the Site and treatment of waste etc, includes reversing bleepers	Public House off A4119, circa. 120m ENE of the Permit Variation Boundary (PVB)	Noise via the atmosphere and vibration through the ground	To minimise noise emissions, all vehicles, plant and machinery operated at the Site will be maintained in accordance with the manufacturer's specification and be fitted with effective silencers. Any breakdown or malfunction of silencing equipment will be treated as an emergency and dealt with immediately. Where a repair cannot be affected immediately the equipment will be taken out of service and the activity stopped.		Unlikely due to the distance of receptors from the Site.	Perceived nuisance rather than actual harm. Noise annoyance to anyone living or working close to the site (excluding operators or employees) which will have more impact in summer months. General nuisance and loss of amenity (perceived rather than actual harm)	Not significant if carefully managed.
	Residential properties in Miskin, closest off The Chesnuts lane, approx. 200m SW of the PVB	As above			As above		As above
	Tynwydd dwellings and Gwendoline Cottages from 315m ESE of the PVB	As above			As above		As above
	Vehicle Testing Centre circa 245m NE of the PVB	As above	Plant and vehicles will be switched off when not in use and no activity will be carried out beyond the permitted hours of working as specified under the planning consent.		As above	As above	As above
	Residential Properties in Hendy circa. 300m NW of the PVB	As above	Minimise the use of the reversing bleepers were possible by ensuring a suitable turning area is available and all will be fitted with the modern 'white noise' reversing sirens where possible.		As above	As above	As above
	Mwynny House circa. 360m NE of the PVB	As above			As above	As above	As above
	Industrial unit circa. 422m NE of the PVB	As above			As above	As above	As above
	Crofta village circa. 445m SE of the PVB	As above	Routine maintenance of treatment plant and equipment will be carried out on an agreed basis to minimise noise emissions.		As above	As above	As above
	Glyn Park (cricket ground) circa. 338m S of the PVB	As above			As above	As above	As above
	Agricultural land on the S and W PVB	Not considered a sensitive receptor with regard to noise and vibration therefore has not been addressed any further.					

Table CE-HN-0488-RP01-T7 Odour Risk Assessment and Management Plan - Continued

Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Cont'd... Odour generated from vehicles delivering and offloading waste at the Site and treatment operations.	Allygawrddu (remains of monestry) circa. 60m SE of the Permit Variation Boundary (PVB)					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	Railway circa. 347m SW of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	Various Public Footpaths from 30m S of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	A4119 road circa. 70m W of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	School Road circa. 200m NW/N of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	Ely Valley SSSI and Ely River from 315m S of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	Ditch fed by spring approx. 250m SE of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	Various ponds/lakes from 115m to the NE of the PVB					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.
	Underlying groundwater					Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.

Table CE-HN-0488-RP01-T7 Odour Risk Assessment and Management Plan

Hazard	Receptor	Pathway	Risk Management		Probability of Exposure	Consequence	What is the Overall Risk
Odour generated from vehicles delivering and offloading waste at the Site and treatment operations.	Public House off A4119, circa. 120m ENE of the Permit Variation Boundary (PVB)	Via the atmosphere then inhalation	Due to the nature of the waste materials to be accepted at the Site, no odorous wastes will be permitted and therefore this section has not been addressed further	Very Unlikely	As above	Odour annoyance to anyone living or working close to the site (excluding operators or employees) which will have more impact in summer months. General nuisance and loss of amenity (perceived rather than actual harm)	Not significant
	Residential properties in Miskin, closest off The Chesnuts lane, approx. 200m SW of the PVB						As above
	Tynwydd dwellings and Gwendoline Cottages from 315m ESE of the PVB	As above	As above	As above	As above	As above	As above
	Vehicle Testing Centre circa 245m NE of the PVB	As above	As above	As above	As above		As above
	Residential Properties in Hendy circa. 300m NW of the PVB	As above	As above	As above	As above		As above
	Mwynndy House circa. 360m NE of the PVB	As above	As above	As above	As above	As above	As above
	Industrial unit circa. 422m NE of the PVB	As above	As above	As above	As above	As above	As above
	Crofta village circa. 445m SE of the PVB	As above	As above	As above	As above	As above	As above
	Glyn Park (cricket ground) circa. 338m S of the PVB	As above	As above	As above	As above	As above	As above
	Agricultural land on the S and W PVB	Not considered a sensitive receptor with regard to odour and therefore has not been addressed any further.					