Environmental Risk Assessment - risk screening

Facility: Hatford Quarry KB3009XM

Location: Hatford Quarry

Risk assessment carried out by: GWP Consultants LLP

Date: 27-May-21

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	**Low**	Permitted waste is inert and has a low potential to produce bioaerosols, but the activities will produce some particulate matter so a medium magnitude risk is estimated. There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months. See also the Dust Emissions Management Plan in Appendix K.	Implementation of Site Operation procedures to reduce releases in accordance with Environmental Management System (EMS).	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Low	Low	**Low**	As above. Local residents often sensitive to dust. See also the Dust Emissions Management Plan in Appendix K.	As above.	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Very low	Very low	**Very low**	Local residents often sensitive to litter, however permitted waste is inert and has low litter potential.	Implementation of Site Operation procedures in accordance with EMS.	Very low

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Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Very low	Very low	**Very low**	Road safety, local residents often sensitive to mud on roads. Permitted waste is inert and has low litter potential.	Implementation of Site Operation procedures in accordance with EMS.	Very low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Very low	Very low	**Very low**	Local residents often sensitive to odour, however permitted waste is inert and has low odour potential.	Implementation of Site Operation procedures in accordance with EMS.	Very low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Low	Low	**Low**	Local residents often sensitive to noise and vibration. See also the Noise Impact Assessment and Management Plan in Appendix L.	Implementation of Site Operation procedures in accordance with EMS.	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	Very low	**Very low**	Permitted waste is inert and is unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	Implementation of Site Operation procedures in accordance with EMS.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Very low	**Very low**	Permitted waste is inert and is unlikely to attract pests.	Implementation of Site Operation procedures in accordance with EMS.	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	Very low	Very low	**Very low**	The site is not located within a Flood Risk Area.	Not applicable.	Very low

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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	Very low	Very low	**Very low**	Permitted waste is inert and therefore a very low magnitude risk is estimated.	Implementation of Site Operation procedures in accordance with EMS.	Very 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, fire fighters 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.	Very low	Very low	**Very low**	Permitted waste is inert and therefore a very low magnitude risk is estimated.	Implementation of Site Operation procedures in accordance with EMS.	Very 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 fire fighters. Pollution of water or land.	As above.	Very low	Very low	**Very low**	As above.	Implementation of Site Operation procedures in accordance with EMS.	Very 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.	Very low	Very low	**Very low**	Permitted waste is inert and therefore a very low magnitude risk is estimated. See also ESSD and HRA reports in Appendices Iii and Iiv respectively.	Implementation of Site Operation procedures in accordance with EMS.	Very low

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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	Very low	Very low	**Very low**	As above.	Implementation of Site Operation procedures in accordance with EMS.	Very 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.	Very low	Very low	**Very low**	Permitted waste is inert and therefore a very low magnitude risk is estimated. Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off. See also ESSD and HRA reports in Appendices Iii and Iiv respectively.	Implementation of Site Operation procedures in accordance with EMS.	Very low
Groundwater. The bedrock stratum (Stanford Formation - Limestone) is designated by the Environment Agency as a Secondary A Aquifer. The site area is not located within a Groundwater Source Protection Zone.	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Very low	Very low	**Very low**	Permitted waste is inert and is unlikely to contaminate groundwater. See also ESSD and HRA reports in Appendices Iii and Iiv respectively.	Implementation of Site Operation procedures in accordance with EMS.	Very low

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Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Very low	Very low	**Very low**	Permitted waste is inert and therefore a very low magnitude risk is estimated. Recreational use of site is not proposed.	Implementation of Site Operation procedures in accordance with EMS.	Very low
Protected sites - European sites and SSSIs.	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Very low	Very low	**Very low**	Permitted waste is inert and therefore a very low magnitude risk is estimated. No protected sites are located within 500m of site. See also ESSD and HRA reports in Appendices Iii and Iiv respectively.	Implementation of Site Operation procedures in accordance with EMS.	Very low