

**Generic risk assessment for standard rules set number SR2009No8 v2.0**

**Standard Facility:**

The management of inert extractive wastes and unpolluted soil at a mine or quarry

**Location:**

Applies to all potential locations.

**Risk assessment carried out by:**

Environment Agency

**Date:**

16-Mar-10

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

- Parameter 1 Permitted activities - the storage, treatment and disposal of inert extractive wastes and unpolluted soil at a mine or quarry.
- Parameter 2 Inert extractive wastes and unpolluted soil only
- Parameter 3 The activities must be operated in accordance with an approved waste management plan. The requirements of the plan are to prevent or reduce waste production, encourage recovery by recycling, reusing or reclaiming the waste and ensure short and long term safe disposal with the objectives of avoiding endangering human health, not harming the environment and without causing a nuisance or affecting amenity.
- Parameter 4 There must be no point source emissions to air, water or land.

Abbreviations: SR - Standard Rule

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)	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Low	Medium	Waste types are inert. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees). Potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months.	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	Medium	Local residents often sensitive to dust.	As above	Low

Local human population	Waste 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. Most deposits will be generated by the removal of extracted material rather than the regulated waste activities.	As above (no appropriate measures defined). Appropriate measures could include clearing waste and mud arising from the activities from affected areas outside the site.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Low	Medium	Low	Emissions are already subject to strict planning controls in accordance with Government advice given in Mineral Policy Statement 2: Controlling and Mitigating the Environmental Effects of Minerals Extraction in England.	SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan.	Low
Local human population and local environment	Flooding of site	If inert waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Low	Low	Wastes are inert. Unlikely that flood waters will mobilise appreciable amounts of deposited waste. Wastes from site are unlikely to add to the volume and hazard of the local post-flood clean up workload.	SR - Activities shall be operated in accordance with an approved waste management plan. Waste washed off site restricted by SR (emissions of substances not controlled by emission limits).	Very low
Local human population	Movement or collapse of deposited waste	Risk to life and human health, structural damage, loss of amenity	Waste may collapse onto adjacent land or property	Very low	High	Low	Regulation of stability is through Tipping Rules under Health and Safety legislation	As above. Tipping rules would provide all of the necessary safeguards that the Mining Waste Directive requires with regard to stability.	Very low
Local human population and / or livestock after gaining unauthorised access to the activities	All on-site hazards: particularly machinery and vehicles relating to waste handling and storage activity.	Bodily injury	Direct physical contact	Low	Medium	Low	Waste types are inert, so only a low 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

All surface waters close to and downstream of site. All River Quality Objective categories	Spillage of liquids, contaminated rainwater run-off from waste containing suspended solids.	Acute and chronic effects: harm to fish spawning areas, inhibition of plant growth, changes in river ecology and deterioration of water quality.	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	Medium	Medium	Potential for run-off from stored inert wastes to carry appreciable amounts of suspended solids. No point source emissions to water are permitted. Point source discharges to water from the mine or quarry site that may be contaminated should be regulated by a water discharge permit.	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).	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	Low
Protected nature conservation sites	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance etc.	Any	Low	Medium	Low	Waste operations have very low capacity to cause harm to or deterioration of nature conservation sites compared to the overall mineral extraction / processing activities at the site and the fact that permission has already been granted for the activities.	SR - emissions of substances not controlled by emission limits.... SR (if required) - emissions management plan. SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan. SR - Activities shall be operated in accordance with an approved waste management plan. Run-off restricted by SR (emissions of substances not controlled by emission limits).	Very low

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