

Low Edge (Elland Edge) Quarry Permit Review of H1 Risk Assessment - Consequences

	Event	Likelihood of Occurrence	Consequence of Occurrence	Actions taken or proposed to minimise the chances of it happening	Actions planned if the event does occur
1a	Dust Emissions from Processing Area Dust Report and Health Risk Assessment supplied to Council EHO	Unlikely, the crusher and screen are fitted with cowls and are located in the south side of the quarry and shielded from wind by spoil heap and screen bund to the west and the quarry and yard to the north	Nuisance dust emissions over quarry face and tree line at Low Edge Road if the wind is from the SW blowing NE.	Monitoring of weather conditions, frequency of rain and dust minimisation through good practice in the quarry & permit area.	Implement environmental controls. Revise contingency plans and cease processing until dust emissions brought under control
1b	Dust Emissions from Traffic	Generally unlikely since site access road is covered with tarmac and the length of haul road to permit area is over 150 m long. Metalled road from site to Low Edge Road >60 m long	Nuisance Dust to the Quarry and on surrounding houses to the north.	Road sweeper used to clean road and damp down the tarmac. Monitor weather for dry periods or windy weather where road can dry quickly.	Implement environmental controls, road sweeping, clean tyres on HGV's
2a	Noise Emissions to Properties. Noise Report supplied to EA	Generally unlikely as noise assessment has measured levels of noise as quarry working near surface. Noise levels below 55 d(B)A. Traffic noise from Low Edge Road negligible above other traffic. Waste operation in the void so face and screening bunds are a buffer and attenuate noise.	Noticeable background noise from quarry with traffic noise from Low Edge Road, M62 and farm machinery.	Good practice, not over revving engines, low drop point, ease load into tipper body and cushion with first bucket load. Reduce activity at surface level	Investigate noise source at quarry and meet complainant. Cease working at the location where noise source is until investigated.
2b	Vibration	Negligible off site, only near to plant.	Nuisance to operators.	Maintain processing on stone beds and designated area to SE corner of the quarry and cover with compacted fines to cushion local vibration from plant.	Action will be considered for machinery but there is no blasting of stone. Only tracked machines could cause vibration.
3a	Surface Water Pollution from Waste	Unlikely due to material being deposited within the permit area on clay geological barrier and quarry containing sump to collect water for re-use.	Negligible effect on aquatic life Calder Valley	Control of surface water flow in the permit area to a impound pond and sampled.	Investigate source and limit fines flow in surface water.
3b	Surface Water Pollution from Fuel	Highly unlikely given machines are all new and in good order. Machines	Major risk of pollution and effect on aquatic life	Machines fuelled at tank and if fuel taken into the quarry,	Quarry dust and sand used to soak up fuel and bund

		tracked to fuel tank. Crusher and screen fuelled with hand pump from barrel.	if not stopped reaching the river Calder 1 km to north of site in the valley	vehicle supplied with spill kit and barrel remains in pick up. Machines fuelled on pad of stone dust which can be removed if spillage.	the spill. Investigation of procedure, notify EA.
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4a	Groundwater Pollution from Waste	Highly unlikely given permitted waste types. Quarry void has a sump and water table is below the floor of the permit area in the strata. The sampling of water has shown it is not impacted by the quarry operation. The permit area will be separate from the quarry and will collect surface water that flows to the permit sump (impound pond)	Although the occurrence is unlikely to happen should there be surface water run off percolating into the floor of the quarry as the void is being filled, it is contained in the sump and impounded to be sampled and OK used on the site for dust suppression.	Working practice and operational procedures are in place to minimise the potential for groundwater pollution as water present beneath the present void floor and monitoring over past 6 years has shown there is no impact from quarry operations and imported material will be the same, coal measures strata.	Treated as an emergency and water run off and percolation into the floor prevented by sump which is lined with clay
4b	Groundwater pollution from fuel	Very unlikely given machines are all new and in good order. Double skinned fuel tank near weighbridge. Machines tracked to fuel tank. Crusher and screen fuelled with hand pump from barrel.	Major risk of pollution and effect on water regime in area.	Machines fuelled at tank and if fuel taken into the quarry, vehicle supplied with spill kit and barrel remains in pick up. Machines fuelled on pad of lime dust which can be removed if spillage.	Stone dust and sand used to soak up fuel and bund the spill. Investigation of procedure, notify EA
5	Impact on Surrounding Area	Very unlikely considering past 20 years of quarry working has not affected the local residents as managed by the company on receipt of any complaints.	Affect on Flora and Fauna from dust or contaminated water.	Good working practice and management. Weather conditions noted.	Health of trees by inspection, if incident on site.

The risk assessment illustrates that events are unlikely to occur on the site and there are procedures in place through managing the operation based on the current practice to minimise the risk and control the situation if an incident was to occur.

Surveys and monitoring of the quarry are undertaken regularly to satisfy Regulatory requirements to comply with the Planning Permission, the Quarries Regulations 1999 and the proposed Bespoke Environmental Permit.