

RISK ASSESSMENT		Nature of Safety Subject /Activity: Crusher operation (general)									
AUTHORED BY:	Mick Daynes			APPROVED BY:							
POSITION:	Safety Consultant			POSITION:							
DATE:	28-07-2024			DATE:							
SIGNATURE:				SIGNATURE:							
HAZARD IDENTIFICATION											
HAZARD (VISUAL IDENTIFICATION):					HAZARD TASK: (DESCRIPTION OF ACTIVITY):						
					Hazards associated with feeding, maintaining and working nearby crusher.						
PERSONS AFFECTED BY THE WORKS											
PERSONS EXPOSED:	PERSONS CARRYING OUT THE TASK		✓	OFFICIAL VISITORS			NUMBER EXPOSED:		5		
	ONSITE STAFF		✓	MEMBERS OF THE PUBLIC							
	SUB-CONTRACTORS			YOUNG PERSONS			DURATION AND FREQUENCY OF EXPOSURE:		Daily		
	DRIVERS			OTHER							
RISK EVALUATION											
SEVERITY (S)	Risk Factor (RF)										
(6) Multi-fatal	6	12	18	24	30	36	Very high risk	Very high risk	Intolerable – Do not start work		
(5) Fatality	5	10	15	20	25	30					
(4) Major	4	8	12	16	20	24	High risk	High risk	Work can commence with reassessment of the risk levels and direct supervision		
(3) Notifiable	3	6	9	12	15	18					
(2) Minor	2	4	6	8	10	12	Medium risk				
(1) Negligible	1	2	3	4	5	6	Low risk				
(1) Very rare						(6) Almost certain		Medium risk	Tolerable: reduce where practicable		
(2) Remote						(5) Frequent					
(3) Occasional		(4) Regular									
LIKELIHOOD (L)							Low Risk	Safe condition.			
HAZARD:	CONSEQUENCES WITH NO CONTROL MEASURES		Initial risk rating			CONTROLS			Present risk rating		
			S	L	RF				S	L	RF
Moving plant	Death Potential for serious injury or fatality if persons hit by plant		6	4	24	Induction to include detailed safety instructions on how to work around plant and where plant will be operating. All plant operators will have CPCS or equivalent operator safety training. Any operatives working with plant will have appropriate training to ensure ability to work safely around plant. Plant and pedestrian routes will be segregated by physical barriers where reasonably practicable. Exclusion zones and safe working spaces for plant operations will be set up and carefully managed. Signage indicating where plant could be working will be displayed around the work area. High visibility clothing will be worn by all operatives on site.			6	1	6

Collapse of platforms/ excavations	Potential for death or serious injury Damage to plant	6	3	18	Excavation/fill batters cut to 45degrees by excavator Areas to be + 2m beyond footprint of machine working on platform Platforms to be constructed from dry compactable material Crusher operative to choose appropriate location for crusher set-up Induction to include detailed safety instructions on how to work around plant and where plant will be operating All plant operators will have CPCS or equivalent operator safety training Exacavtor to be positioned with tracks facing crusher before loading Crusher operatives will also have appropraite crusher training	6	1	6
Inexperienced operatives	Potential for death/injury to operative	5	4	20	Only trained and experienced operatives to work with/near crusher switch off and remove the keys before leaving the crusher unattended.	5	1	5
Unsecure wagon loads	Injury to personell Potential for death Damage to plant or other vehicles	4	5	20	Loads checked by operator for security/stability Recommended load capacity will not be exceeded The loading process will be managed by a cr operator acting as a standby man	4	1	4
Working at height	Injury to personell Potential for death	5	5	25	Work at height will be avoided where possible. Operatives will never stand on the platform during the feeding operation. Tools should be lifted up to the working platform using a rope or passed up by operatives on the ground. Three points of contact must be maintained at all times whilst climbing the ladder. Long tools should be used where possible to avoid over reaching. The system must be continually monitored. And reviewed annually.	5	2	10
Projectile debris	Injury to personell Potential for death Damage to plant or other vehicles	6	4	24	An exclusion zone will be established around the crusher to ensure pedestrians do not enter during normal operation. Assessment to be carried out by a competent person with crusher operator training as to when it is safe to enter this zone. When crusher is blocked the operator will follow the agreed method for unblocking. The system must be continually monitored. And reviewed annually.	6	1	6

Crusher Blockages	Injury to personell Potential for death Damage to plant	5	5	25	Reduce oversized material into manageable pieces. Ensure correct equipment is used to load crusher. Crusher operatives will have crusher operator training. If removal by hand is necessary, the crusher and associated plant must be stopped and isolated. Only tools fit for purpose will be used to unblock the crusher PPE appropriate to the task must be worn For severe/unusual blockages a separate risk assessment will be carried out by the crusher operator and approved by the site manager	5	2	10
Oversized material	Crusher blockages Overturning excavator Damage to crusher Potential for death/injury to operatives who may need to unblock crusher Potential for death/injury to excavator operator	5	4	20	The excavator operator should reduce the size of material using the hydraulic breaker attachment before loading into the crusher Any material that cannot be adequately broken down should be moved into a designated pile to be processed at another time	5	1	5
Poor crusher positioning	Potential for death/injury to operatives who may need to unblock crusher Damage to crusher	5	3	15	The crusher operator should find a suitable level platform to position the crusher which is safe to access for the excavator and operatives Crusher operator should ensure a 1 metre distance between the loading pile and the crusher to reduce likelihood of crusher damage	5	1	5
Maintaining crusher.	Potential for injury from working on plant e.g. trapping a person's limbs within moving parts of crusher	4	5	20	Only trained and competent operatives will attempt to maintain/repair the crusher Crusher will be regularly checked for maintenance issues in accordance with PUWER (1998) and records will be kept Crusher will be completely isolated and switched off before operatives are allowed to work in its immediate Screener must be switched off, isolated and lockout padlocks put in place before any maintenance work can begin	4	1	4
Unauthorised use	Potential for death or serious injury	5	3	15	Crusher remote control to be locked in weighbridge cabin when not in use Crusher operative to remove keys when going for breaks or leaving site	5	1	5
Slips, trips and falls	Potential for tripping over debris or tools Potential for serious injury Excavator operator could trip when entering/exiting excavator	3	4	12	Designated walkways will be created using excavators and physical barriers where reasonably practicable Good housekeeping will be maintained, among operatives; walkways kept clear etc. This will be reinforced with toolbox talks A stable 3 in 1 access ramp should be constructed by the operator to allow easy access to/from the excavator	3	1	3

Manual handling	Potential for musculoskeletal injury from manual handling operations.	3	5	15	Operatives will work in accordance with Manual Handling regulations 1992. Operatives will be briefed on the risks of injuries in relation to manual handling during toolbox talks and site induction. Mechanical means such as excavators will be used to move materials where possible for moving material and equipment.	3	1	3
Hazardous substances other than asbestos	Potential for employees health being affected	2	5	10	Operatives will be briefed on the CoSHH assessments during induction and agree to work in accordance with them. Appropriate PPE will be worn where necessary. Spill kits used where necessary	2	1	2
Dust	Potential for harming health of employees Potential for harming health of visitors Nuisance to neighbours	3	5	15	Daily dust monitoring throughout site & recording of findings Damping down of working areas in dry conditions No residential properties within the immediate vicinity No road haulage planned other than low loaders for mobilisation FFP3 mask to be worn during dusty operations	3	1	3
Noise	Potential for damaging hearing when working with crusher. Disruption to neighbours	3	4	12	An assessment of the noise level will be carried out and recorded. Operatives will wear hearing protection when working near crusher. No residential properties within the immediate vicinity. Crusher used only between 7.30am and 6pm.	3	1	3
Accessing working platforms	Risk of falling Risk of injury to employees	4	4	16	Accessing platforms by operatives to be avoided where possible Ramps to be constructed from suitable 'stable' material Ramps to be no steeper than 1:3 Ramps to be + 1m the working area of the plant utilising access ramp Continuous monitoring of piles for stability to be carried out by operatives working on platforms	4	2	8
Refuelling plant	harming the environment Skin irritation Fire	4	3	12	Fuel to be stored in locked and bunded tanks only Spill kit to be located in immediate proximity to fuel tanks Nitrate gloves to be worn whilst refuelling plant No naked flames around fuelling area Fire extinguishers to be within immediate proximity	4	1	4

