

Equipment / Tasks				Potentially Exposed Jobs / SEGs	Engineering and Work Practice Control Methods	OSHA Table 1 Section Alignment
1	QUARRY OPERATIONS	(i)	Use of mobile equipment to mine quarry and move material:  - Excavating - Loading - Hauling material - Hauling overburden	▪ Haul Truck Driver ▪ Quarry Loader Operator ▪ Stripping Crew ▪ Water Truck Driver	Mobile Equipment with Environmentally Controlled Cabs:  - Air-filtration system (use of positive pressure for sand operations or similar high silica content) - HEPA filters on AC/heater - Cab windows and doors remain up and closed tight - Door gaskets and other joints, etc., sealed - Routine cleaning inside cab to remove dust debris (e.g., shift end or mid-shift) - If functioning environmentally controlled cab not available, adequately wet down entire area prior to and during work to control dust	ix xviii
		(ii)	Drilling  - Drilling prior to blasting	▪ Driller Operator (enclosed cab)	- Positive-pressure air-filtration systems in cab - HEPA filters on AC/heater in cab - Cab windows and doors remain up and closed tight - Routine cleaning inside cab to remove dust debris (e.g., shift end or mid-shift) - Door gaskets and other joints, etc., sealed - While drilling operations are ongoing remain in the enclosed cab (driller helper) - If functioning environmentally controlled cab not available, adequately wet down entire area prior to and during work to control dust	ix xvii xviii
		(iii)		▪ Driller Helper (or w/o closed cab for Driller Operator)	When employees outside of the cab are engaged in the task, apply water and/or dust suppressants to minimize dust emissions OR use drill-stem collar or shroud as dust-collection at point of drilling with automatic collector on dump discharge if dry drilling.	ix xvii xviii
2		(i)	Routine plant operations (crushers, screening towers, conveyors):  - Control of plant operations / fixed plant / customer truck loading	▪ Plant/Crusher Operator	Environmentally Controlled Control Booths:  - Air-filtration system (use of positive pressure for sand operations or similar high silica content) - HEPA filters on AC/heater - Windows and doors remain up and closed tight - Door gaskets and other joints, etc., sealed - Routine cleaning inside booth to remove dust debris (e.g., shift end or mid-shift)	xvi
		(ii)	Routine rounds within plant operations (crushers, screening towers, conveyors, active stockpiles):  - Outside of control booths/room - Natural ventilation (e.g., outdoors, not in tunnels or enclosed plants, etc.)	▪ Plant/Crusher Operator ▪ Conveyor/Crusher Attendant ▪ Groundsman ▪ Laborer/Helper ▪ Oiler/Grease-Lube Man ▪ QC Technician ▪ Maintenance / Mechanic ▪ Tunnel Man	Feasible Engineering Dust Controls:  - High pressure-low volume dust suppression while plant is operating - Enclosed conveyors and shrouded transfer points - General ventilation system with bag house and cyclone dust collectors - Enclosed lab room with separate ventilation to exterior of lab to control dust - Wetting material down at points of origin before removing	xvi

3	PLANT OPERATIONS	(iii)	General clean-up, housekeeping and light maintenance within the plant (crushers, screening towers, conveyors, active stockpiles):  - Outside of control booths/room - Natural ventilation (e.g., outdoors, not in tunnels or enclosed plants, etc.)	<ul style="list-style-type: none"><li>▪ Plant/Crusher Operator</li><li>▪ Conveyor/Crusher Attendant</li><li>▪ Groundsman</li><li>▪ Laborer/Helper</li><li>▪ Oiler/Grease-Lube Man</li><li>▪ Tunnel Man</li></ul>	Feasible Engineering Dust Controls:  - High pressure-low volume dust suppression while plant is operating - Enclosed conveyors and shrouded transfer points - General ventilation system with bag house and cyclone dust collectors - Wetting material down at points of origin before removing - Ban all dry sweeping or compressed air dust clean-up - Wet sweeping or HEPA-filtered vacuuming removal practices utilized - Half-face APR respirator with HEPA filters or PAPR unless monitoring indicates not needed	xvi
		(iv)	General clean-up within the plant using loaders  - Removal of material and debris (e.g. skid steer)	<ul style="list-style-type: none"><li>▪ Loader Operator</li><li>▪ Tunnel Man</li></ul>	Mobile Equipment with Environmentally Controlled Cabs:  - Air-filtration system (use of positive pressure for sand operations or similar high silica content) - HEPA filters on AC/heater - Cab windows and doors remain up and closed tight - Door gaskets and other joints, etc., sealed - Routine cleaning inside cab to remove dust debris (e.g., shift end or mid-shift) - If environmentally controlled cab not available, adequately wet down entire area prior to and during work to control dust <del>Half-face APR respirator with HEPA filters or PAPR unless monitoring indicates not needed</del>	xviii
		(v)	Maintenance throughout the plant  - Particularly within confined or enclosed spaces	<ul style="list-style-type: none"><li>▪ Maintenance/Mechanic</li><li>▪ Groundsman</li><li>▪ Laborer/Helper</li><li>▪ Oiler/Grease-Lube Man</li><li>▪ Tunnel Man</li></ul>	Feasible Engineering Dust Controls:  - Use of additional ventilation (e.g., portable ventilation systems) - Wetting material down at points of origin before removing - Half-face APR respirator with HEPA filters or PAPR unless monitoring indicates not needed	xvi
	TRANSPORT AND PRODUCT LOADING OPERATIONS	(i)	Binsetter / Customer Truck Loading	<ul style="list-style-type: none"><li>▪ Binsetter</li><li>▪ Plant Operator</li></ul>	Environmentally Controlled Control Booths:  - Positive-pressure air-filtration systems - HEPA filters on AC/heater - Windows and doors remain up and closed tight - Routine cleaning inside booth to remove dust debris (e.g., shift end or mid-shift) - Door gaskets and other joints, etc., sealed	xviii
		(ii)	Aggregate / Stone Bagging Operations	<ul style="list-style-type: none"><li>▪ Bagger</li></ul>	Local Exhaust Ventilation  - Control dust with local exhaust at bagging point	xviii
		(ii)	Cleaning Containers:  - Rail-Car Shaking - Barge Clean-out	<ul style="list-style-type: none"><li>▪ Rail-Car Shaker Operator</li><li>▪ Rail-Car Dropper</li><li>▪ Barge Operator</li></ul>	Mobile Equipment with Environmentally Controlled Cabs (e.g. skid steer) or Booths: - Air-filtration system (use of positive pressure for sand operations or similar high silica content) - HEPA filters on AC/heater - Cab windows and doors remain up and closed tight - Routine cleaning inside cab/booth to remove dust debris (e.g., shift end or mid-shift) - Door gaskets and other joints, etc., sealed - If environmentally controlled cab not available, adequately wet down entire area prior to and during work to control dust - Half-face APR respirator with HEPA filters or PAPR unless monitoring indicates not needed	xviii

		(iii)	Use of mobile equipment to load material:  - Loading	▪ Loader Operator	Mobile Equipment with Environmentally Controlled Cabs:  - Air-filtration system (use of positive pressure for sand operations or similar high silica content) - HEPA filters on AC/heater - Cab windows and doors remain up and closed tight - Routine cleaning inside cab to remove dust debris (e.g., shift end or mid-shift) - Door gaskets and other joints, etc., sealed - If environmentally controlled cab not available, adequately wet down entire area prior to and during work to control dust	xviii
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**NOTES:**

- For general operations and not for shutdown conditions or non-routine exposures
- For sand, granite and limestone > 1% quartz content