

August 23, 2021

**Dust Management Plan**  
**Knife River - Woodward & Vanier Sites**



Activity	Agency Requirement	Control measures	Agency
Crusher dust emission	Must not equal or exceed an average of 20% opacity Shall control all fugitive dust emissions associated with all operations (extraction, processing and storage) on the site. The applicant shall control dust by applying water or by seeding and/or mulching exposed surfaces.	Water Spray nozzels	Oregon DEQ - Air Permit
Haul Roads	Fugitive Emissions - must take reasonable precautions to prevent fugitive particulate matter from becoming airborne from all site operations from which it may be generated Shall control all fugitive dust emissions associated with all operations (extraction, processing and storage) on the site. The applicant shall control dust by applying water or by seeding and/or mulching exposed surfaces.	Water Truck and or chemical treatment Water Truck and or chemical treatment	Oregon DEQ - Air Permit Crook County Condition #13
Aggregate Stockpiles	Fugitive Emissions - must take reasonable precautions to prevent fugitive particulate matter from becoming airborne from all site operations from which it may be generated Shall control all fugitive dust emissions associated with all operations (extraction, processing and storage) on the site. The applicant shall control dust by applying water or by seeding and/or mulching exposed surfaces.	Water truck and or sprinklers Water Truck and or sprinklers	Oregon DEQ - Air Permit Crook County Condition #13
Overburden Stockpiles	Fugitive Emissions - must take reasonable precautions to prevent fugitive particulate matter from becoming airborne from all site operations from which it may be generated Shall control all fugitive dust emissions associated with all operations (extraction, processing and storage) on the site. The applicant shall control dust by applying water or by seeding and/or mulching exposed surfaces.	Cover, seed and or mulch bare soils Cover, seed and or mulch bare soils	Oregon DEQ - Air Permit Crook County Condition #13
	Erosion Prevention - The Permittee must stabilize soil and overburden stockpiles through vegetation or other measures, such as mulching or covering, to prevent wind and rain erosion at all times. Barren stockpiles and berms must be seeded in a cover crop or otherwise secured against erosion.	Cover, seed and or mulch bare soils	Oregon Dept. of Geology Condition #3 and #4
Reclamation backfill	Shall control all fugitive dust emissions associated with all operations (extraction, processing and storage) on the site. The applicant shall control dust by applying water or by seeding and/or mulching exposed surfaces.	Seed and or mulch bare soils	Crook County Condition #13

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Trackout - County Road	Prompt removal from paved streets of earth or other materials that may become airborne	Sweeper	Oregon DEQ-Air Permit

Control Measure	Description
Water Spray Nozzels	Employees will inspect spray water system on crushing plant daily, while operating.
Water Truck	Water truck will be operational and used when necessary (Dust is visible) on haul roads, aggregate stockpiles and as needed during the placement of overburden piles and any bare soil areas disturbed by mining that are dusty due to mining activity or wind blown dust, while the site is operational. An operational log will be kept onsite for inspection and will document each time the truck is used and what areas covered.
Chemical Treatment	DEQ approved dust suppressant may be used on haul roads and relatively flat bare soils.
Grass Seed or Planting	Native Grass seed ground cover will be installed on overburden piles, berms and bare soils in late summer early fall planting season to become fully established. Planting any fully reclaimed areas of the site in the fall or early summer each year.
Mulching	Inactive overburden piles and reclaimed areas, if they are not seeded or planted by fall of each year will be covered with a layer of mulch to stabilize.
Sweeper	Road sweeper will be used, whenever there is trackout onto County Road