DTG Recycle – Yakima Facility
Crushing and Screening Operations
New Source Review Application
Additional Information

Prepared for
DTG Recycle

March 2024

Parametrix

DTG Recycle – Yakima Facility Crushing and Screening Operations New Source Review Application Additional Information

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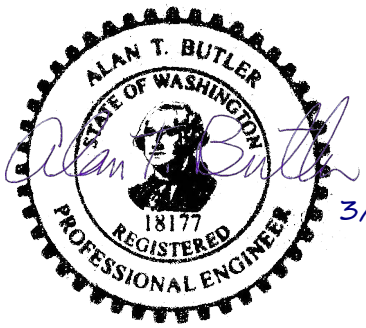
Certification

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seal, as a professional engineer licensed to practice as such, is affixed below.



3/25/2024

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3/25/2024

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Acronyms and Abbreviations

BACT	Best Available Control Technology
C&D	construction and demolition
CUP	Conditional Use Permit
DNS	Determination of Non-Significance
DTG	DTG Recycle
Ecology	Washington State Department of Ecology
EMI	East Mountain Investments LLC
FDCP	Fugitive Dust Control Plan
HWA	HWA GeoSciences Inc.
LNG/CNG	liquefied/compressed natural gas
LPG	liquefied petroleum gas
LPL	limited purpose landfill
MRF	material recovery facility
NAICS	North American Industry Classification System
NSR	New Source Review
OA	Order of Approval
PCS	petroleum contaminated soil
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	potential to emit
SEPA	State Environmental Policy Act
SIC	Standard Industrial Classification
SIP	State Implementation Plan
tpy	tons per year
TSD	Technical Support Document
VMT	vehicle miles traveled
WAC	Washington Administrative Code
yd3	cubic yards
YHD	Yakima Health District
YPD	Yakima County Planning Division
YRCAA	Yakima Regional Clean Air Agency

1. Project Description

This New Source Review (NSR) Application has been developed for the crushing operations of the DTG Recycle (DTG) facility located at 41 Rocky Top Road in Yakima, Washington, for review by the Yakima Regional Clean Air Agency (YRCAA). The facility currently includes:

- A quarry operation;
- A limited purpose landfill (LPL) which includes a material recovery facility (MRF); and
- A petroleum contaminated soil (PCS) remediation facility (not in active operations at the time of submittal of this application).

DTG will comply with operating hour limitations imposed by Yakima County in CUP15-051, and is therefore requesting that YRCAA include those limitations in any Order of Approval (OA).

The Sand and Gravel General Permit No. WAG505030 includes approval for concrete and asphalt recycling, including crushing.

This NSR Application is specific to the operation of the DTG crushing operation. YRCAA has issued OA No. NSRP-03-DTGEI-22 for the LPL and the MRF. Completed NSR forms for the rock crushing operation have been included in Appendix A.

1.1 Project Owner/Operator

The DTG facility is owned and operated by DTG. The primary contact is Ian Sutton, DTG Director of Engineering.

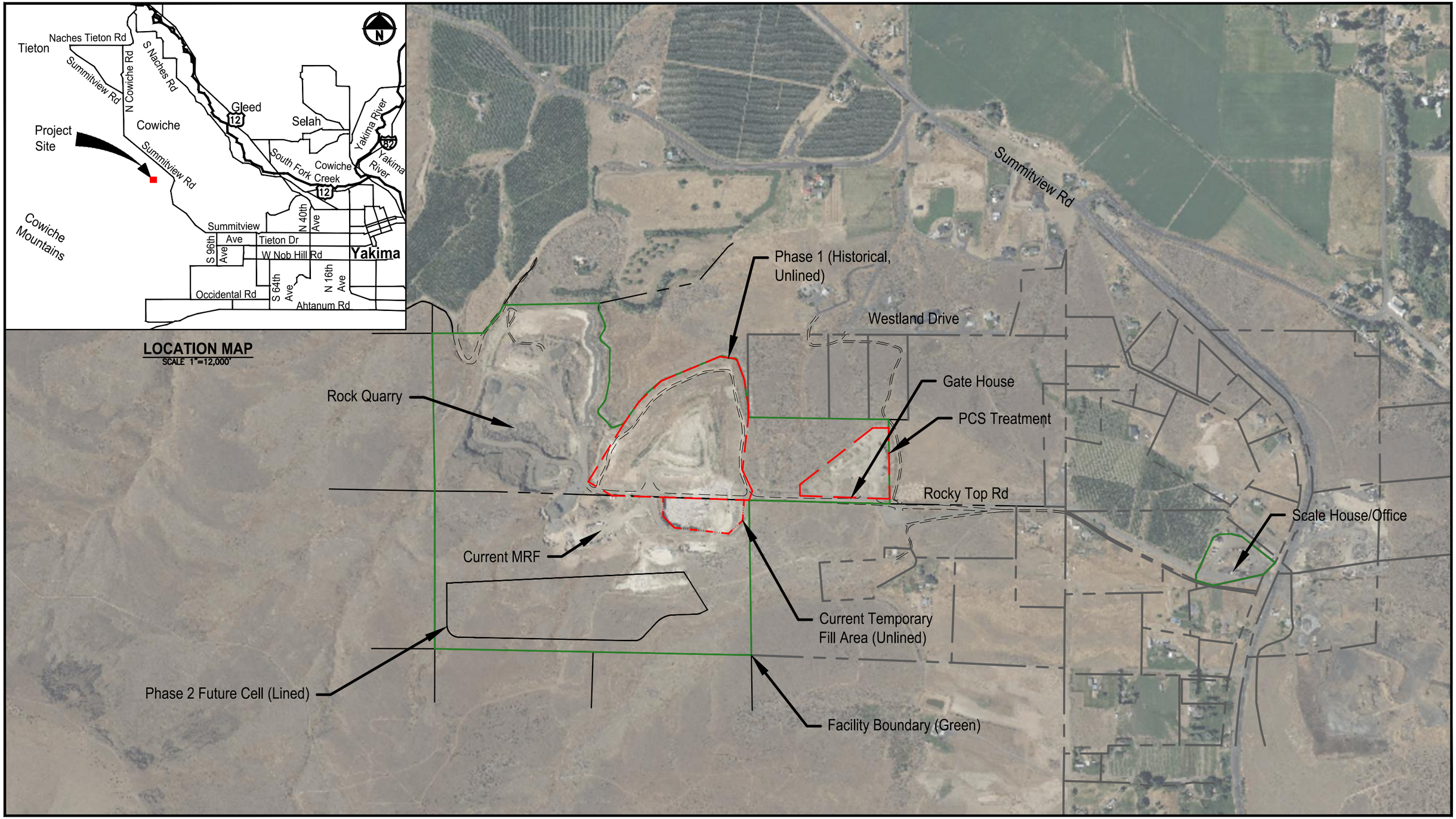
DTG Recycle
PO Box 14203
Mill Creek, WA 9808
(425) 549-3000
Email: isutton@dtgrecycle.com.

1.2 Site Description

The facility is in a rural area northwest of the City of Yakima. Figure 1 shows the vicinity of the LPL.

DTG subsidiary East Mountain Investments LLC (EMI) owns the land. DTG leases the land from EMI, owns the equipment, and operates the facility. The facility has a permitted LPL waste disposal footprint of approximately 116 acres and the permitted PCS facility is approximately 7 acres. The proposed rock crushing operation occurs within the LPL property. This remote location provides security and reduces impacts on the surrounding community.

There are private residences and orchards to the north and northeast of the facility. The area to the southwest, west, south, and southeast is vacant, arid land.



Parametrix

DATE: March 21, 2024

FILE: PS8472003-C01_QTY REPORT 052023_RECOVER

0 N 750

SCALE: 1"=750'

Figure 1
Facility Vicinity Map
DTG Yakima Limited Purpose Landfill

1.3 Rock Crushing Equipment and Process

Crushed asphalt, concrete, and brick are an environmentally beneficial alternative to crushed rock products in residential and commercial applications. Typical uses include road bases, driveways, parking lots, site stabilization, and backfill material. Purchasing these reuse materials saves on construction costs and diverts most of the material from the landfill. The term “rock crushing” when used in reference to DTG operations at the LPL, refers mainly to crushing of large chunks of asphalt, concrete, and brick.

Asphalt, concrete, and brick received by DTG is brought in mostly by dump trucks and is dumped near the mobile crusher and screener, which operate within the LPL property. The front loader in combination with other equipment picks up the material and drops it into the crusher hopper. Crushed material is conveyed to the screen, where it is sorted by size. Chunks that are too large are conveyed back to the crusher. Rebar and other ferrous materials are sorted out before crushing or removed with a magnetic recovery system as part of the crushing operation. Crushed material is removed from the DTG facility by trucks. (See Figure 2.)

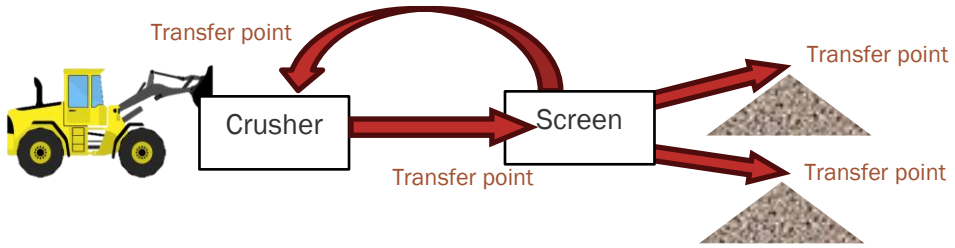


Figure 2. Crushing Process

The crusher is an Astec 2640 mobile jaw crusher, powered by a Caterpillar C7, EPA Tier 3 rated diesel engine (see Figure 3). Displacement is 7.2 liters, with rated power of 225 hp at 2,200 rpm, consuming an average of 8 gallons per hour. The mobile crusher is self-propelled, so the Caterpillar C7 is a nonroad engine per Washington Administrative Code (WAC) 173-400-030(59)(a)(i), and is exempt from NSR, control technology determinations, emission limits set by the State Implementation Plan (SIP), and Chapter 173-460 WAC.

Figure 3. DTG's Astec 2640 Mobile Jaw Crusher

The screen is a CEC 5×12, 2-deck unit powered by a 29-liter Deutz, EPA Tier 2 diesel, with rated power of 72 hp at 2,800 rpm (see Figure 4). The screen is portable, so the Deutz diesel is a nonroad engine per WAC 173-400-030(59)(a)(iii) and is exempt from NSR, control technology determinations, emission limits set by the SIP, and Chapter 173-460 WAC.

Figure 4. DTG's CEC 5×12 Screen

1.4 Permits

The existing LPL is currently operating under a solid waste LPL permit that was originally issued by Yakima Health District (YHD) on April 8, 2008. The LPL also has an updated Type III Conditional Use Permit (CUP), which was issued by the Yakima County Planning Division (YPD) in a Hearing Examiner's Decision dated November 27, 2015. The current LPL permit was issued by YHD on June 24, 2020. The emissions associated with the LPL operation have been included in OA No. NSRP-03-DTGEI-22

The MRF operational solid waste permit was issued on July 8, 2021. The emissions associated with the MRF operation have been included in OA No. NSRP-03-DTGEI-22.

The existing PCS operation has a Special Property Use Permit to establish an additional 15 acres at the existing facility for the remediation of PCS, issued by the Yakima County Zoning Adjustor on October 15, 1992. The current solid waste permit to operate the PCS operation was issued by the YHD on June 24, 2020. The PCS area is not included in an OA and is not currently receiving new material.

The quarry operates under Sand and Gravel General Permit No. WAG505030 which includes approval for concrete and asphalt recycling and crushing. The emissions associated with the quarry operation have been included in OA No. NSRP-03-DTGEI-22, except for rock crushing which is addressed at the time of crushing by the crushing contractor.

The three solid waste operations are under the local jurisdiction of the YHD and the Washington State Department of Ecology (Ecology). The quarry operation is under the local jurisdiction of Ecology. These permits are included in Appendix B.

1.5 Operating Hours

Crushing operating hours vary, depending upon the quantities of asphalt, concrete, and brick that is received.

Typical crushing hours are 8 hours per day for 1 day per week, for approximately 24 weeks, for a total of 192 hours per year. Based on the 325 ton per hour rated capacity of the crusher, that would be 62,400 tons of material per year.

Potential to emit (PTE) calculations were based upon maximum theoretical crushing hours of 10 hours per day, 1 day per week, and 52 weeks per year, for 520 hours per year. That would produce 169,000 tons of crushed material per year using the 325 ton per hour rated capacity of the crusher.

1.6 Rock Crushing by DeAtley

DeAtley Crushing Service or another contracted service provider will continue to bring a portable rock crushing operation onto the site on an occasional basis to crush rocks and other materials into various graded sizes of gravel for sale to the public through the quarry operation. This operation will continue under separate permitting provided by the contracted crushing operation.

1.7 Equipment at the DTG Facility

Table 1 lists the onsite equipment currently owned by and used for all operations at the DTG facility, as well as the anticipated container tipper and MRF conveyor generator. This equipment has been described in the earlier LPL NSR application. The only equipment used solely for the rock crushing operation are the tracked jaw crusher and the screen plant. The front loader is used mostly in other areas of the DTG facility but is used at the crusher when crushing is taking place. Similarly, the water trucks are used in the crushing area as needed to minimize fugitive dust emissions from crushing operations.

Table 1. Equipment Used at DTG Facility

Equipment	Make	Model	Fuel	Regulatory status
Tracked Jaw Crusher	Astec	FT2640	Diesel	Nonroad
Screen plant	CEC	Screen-It 2 Deck	Diesel	Nonroad
Front loader	Caterpillar	980M	Diesel	Nonroad
Water truck	Kenworth	K20	Diesel	Nonroad
Water truck	Ford	L8000	Diesel	Mobile
Pickup	Ford	F250	Gas	Mobile
Pickup	Chev	1500	Gas	Mobile
Pickup	Chev	Silverado	Gas	Mobile

Table 1. Equipment Used at DTG Facility (continued)

Equipment	Make	Model	Fuel	Regulatory status
Van	Ford	Econoline	Gas	Mobile
Side by Side	Polaris	Ranger Crew XP1000	Gas	Mobile
Excavator	Komatsu	240	Diesel	Nonroad
Excavator	Komatsu	650	Diesel	Nonroad
Excavator	Caterpillar	320	Diesel	Nonroad
Haul truck	Caterpillar	740 B	Diesel	Nonroad
Dozer	Caterpillar	D-8T	Diesel	Nonroad
Tipper (C&D)	Columbia Industries	New horizon 65 ton	Diesel	Nonroad
Tipper (MRF)	Columbia Industries	New horizon 65 ton	Diesel	Nonroad
Loader	Caterpillar	962K	Diesel	Nonroad
Backhoe	John Deere	510D	Diesel	Nonroad
Portable sort line, power source	Perkins	403F-11	Diesel	Nonroad
Tub grinder	CW Mill	TCII 1564P	Diesel	Nonroad
Excavator	Luigong	CLG906	Diesel	Nonroad
Motor grader	Caterpillar	120G	Diesel	Nonroad

Notes: Equipment listed in Table 1 is either moved around the site as needed to facilitate operations or is some type of mobile vehicle. Engines used on equipment that moves around the site are classified as nonroad engines, which are regulated under WAC 173 400-035 and are exempt from NSR per WAC 173-400-110(1)(b). Mobile vehicles are not regulated under Chapter 173-400 WAC. Emissions from mobile vehicles are not subject to NSR per WAC 173-400-020(2)(b).

C&D = construction and demolition; MRF = material recovery facility.

1.8 North American Industry Classification System

This facility is classified as a 562212 (Solid Waste Landfill) under the North American Industry Classification System (NAICS) and 4953-12 (Refuse System – Solid Waste Landfill) under the Standard Industrial Classification (SIC) system.

2. Fee

A check for the $400 filing fee will accompany this application. DTG understands that a NSR review fee will be assessed, and invoiced, and that the application will not be considered complete until all permit application and review fees have been paid in full.

3. State Environmental Policy Act Review

The LPL operation underwent State Environmental Policy Act (SEPA) environmental review with the YPD as the lead agency. The most recent LPL environmental checklist was prepared describing a proposed landfill expansion. The review resulted in a Determination of Non-Significance (DNS) dated September 9, 2015.

The quarry operation also underwent mine permitting including CUP2017-00056 and SEPA2017-00022 through YPD. The permitting included material crushing. The review also resulted in a DNS dated August 14, 2017.

Crushing of oversize materials, including concrete, asphalt, and brick is integral to the operations of an LPL, MRF, and quarry operation.

The PCS operation underwent SEPA environmental review with the YPD as the lead agency. An environmental checklist was prepared describing the proposed operation. The review resulted in a DNS dated September 10, 1992.

The determinations are included in Appendix C.

4. Crushing Emissions

4.1 Silt Content Measurements

HWA GeoSciences Inc. (HWA) performed field sampling and laboratory testing for the determination of silt content in soils on roadways and work areas within the DTG LPL in Yakima, Washington. HWA provided a report, which is included in Appendix D of this application. Results from the HWA testing are provided in Table 2..

Table 2. Analysis Results Summary

Sample Designation	Unified Soil Classification	Moisture, %	Silt, %
RS-1	Brown, well-graded SAND with silt and gravel (SW-SM)	4.4	5.3
RS-2	Brown, well-graded SAND with gravel (SW)	3.2	4.5
RS-3	Light yellowish brown, well-graded SAND with silt and gravel (SW-SM)	3.8	6.8
WAS-1	Light yellowish brown, well-graded SAND with gravel (SW)	5.7	2.4
WAS-2	Brown, well-graded SAND with gravel (SW)	10.4	3.6

New operational roads and the new perimeter road to Phase 2 will have gravel surfacing in accordance with Washington State Department of Transportation specifications for crushed surfacing and be maintained by DTG in the same manner as existing road which will result in similar silt percentages.

The sampling and results described in this section were done for the earlier LPL NSR application, but they apply to the crushing operations which take place in the same areas of the DTG facility.

4.2 Particulate Matter

4.2.1 Anticipated Actual Emissions

Anticipated actual emissions from the DTG asphalt, concrete, and brick crushing operations were calculated from an estimated 192 hours per year hours of operation at crusher rated capacity of 325 tons per hour, or 62,400 tons of material per year.

Recent DeAtley contracted rock crushing operations crushed an average of 101,245 tons of rock in 2021 and 2022. Though some of this material included asphalt, concrete and brick from construction and demolition (C&D) waste, a significant portion of the material was rock. Though some of the crushed material was used onsite, in the NOC application for OA No. NSRP-03-DTGEI-22 the entire amount to be exported off site in trucks with 10 cubic yards (yd^3) capacity, an average of 6,750 haul truck trips per year in addition to the LPL haul truck volumes. This is based on a haul density of 1.5 ton per yd^3.

Fugitive particulate emissions from vehicle use associated with crushing operations were not included in the final total because these emissions were accounted for in the earlier OA No. NSRP-03-DTGEI-22.

Emissions due to diesel fuel consumption are not included in this application because these emissions are emitted by exempted nonroad engines and nonroad vehicles.

4.2.2 Crushing of Asphalt, Concrete, and Brick

Crushing controlled emission factors were obtained from the Ecology Rock Crusher General Permit Technical Support Document (TSD). All emissions are in the form of fugitive particulate matter. Emissions for crushing of asphalt, concrete and brick are shown in Table 3 and Table 4 below.

Table 3. Crushing Fugitive Particulate Emissions Factors

lb/ton	$PM_{2.5}$	PM_{10}	PM
Primary Crusher	0.0001	0.00054	0.0012
Fines screening	0.0001	0.0022	0.0036
Conveyor Transfer Points			
lb/ton/point	0.000013	0.000046	0.00014
Points [1]	4	4	4
lb/ton	0.000052	0.000184	0.00056
Truck Unloading [2]	0.000016	0.000016	0.000016
Loading crusher hopper [3]	0.00010	0.00010	0.00010
Total lb/ton	0.00037	0.00304	0.00548

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter.

1 One transfer point from crusher to screen plant, plus three transfer points on screen plant.

2 Truck unloading fragmented stone - Table 11.19.2-2. Value for PM_{10} used for PM and for $PM_{2.5}$.

3 Truck loading, conveyor, crushed - Table 11.19.2-2. Value for PM_{10} used for PM and for $PM_{2.5}$.

Table 4. Anticipated Actual Fugitive Particulate Emissions from Crushing 62,400 Tons per Year

lb/ton	$PM_{2.5}$	PM_{10}	PM
lb/yr (controlled)	23.0	189.7	341.7
ton/yr (controlled)	0.01	0.09	0.17

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter.

4.2.3 Aggregate Handling and Storage Piles

The emission factor for windblown dust from aggregate piles from Section 13.2.4 of AP-42 was used to estimate windblown dust from aggregate storage piles, using Equation 1 from Section 13.2.4 of AP-42:

$$E = k \times 0.0032 \times \left(\frac{U}{5}\right)^{1.3} \times \left(\frac{M}{2}\right)^{1.4}$$

Where:

E = Emission (lb/ton)

k = particle size multiplier: $PM_{2.5}$ = 0.053, PM_{10} = 0.35, PM = 0.74

U = average wind speed, mph (7.8 mph is the high value) Weather U.S. Yakima

M = material moisture, % (5.7% From DTG Anderson Road and Working Area Dust Measurements)

Emissions from windblown dust from aggregate storage piles are shown in Table 5 below.

Table 5. Anticipated Actual Fugitive Particulate Emissions from Aggregate Handling and Storage (Wind Erosion)

	$PM_{2.5}$	PM_{10}	PM
lb/ton	0.00007	0.00046	0.00097
lb/yr (uncontrolled)	4	29	61
Control efficiency	80.0%	80.0%	80.0%
lb/yr (controlled)	0.9	5.8	12.2

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter.

4.2.4 Vehicle Use Associated with Crushing

The hauling of materials received that would be processed through the crusher has been accounted for in OA No. NSRP-03-DTGEI-22. This includes inbound and outbound vehicle trips on paved and unpaved surfaces. The crusher and screen will be located within the work area which has distances consistent with distances identified in emissions calculations supporting OA No. NSRP-03-DTGEI-22.

4.2.5 Work Area Use by Loader

This section is similar to Section 4.2.5 in the LPL NSR application, with the following differences:

- Crushed quantities for this application are based on an estimated 192 average hours per year operation of the crusher.
- Operating hours for the front loader were estimated to be 100% of the time that the DTG crusher is operated; the LPL NSR application estimated that the front loader was used 25% of the time that the LPL was operated.

Equation 1a from Section 13.2.2 of AP-42 and the constants in Table 6. were used to calculate emissions from front loader used in the LPL/crusher areas.

Table 6. Particulate Matter Constants from Section 13.2.2 of AP-42

Constants	$PM_{2.5}$	PM_{10}	PM
k, lb/VMT	0.15	1.5	4.9
a	0.9	0.9	0.7
b	0.45	0.45	0.45

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter.

Silt content, S, was assumed to be 3.6%, which is the silt content for WAS-2 from the HMA report. Loader weight for the Caterpillar 962K used by DTG at the crusher site, 22.5 tons, plus an estimated weight of 4.8 tons per load, was used to calculate an average weight, W, of 24.9 tons. The calculated emission factor, *E*, was multiplied by the natural mitigation factor to the extrapolated emission factor, E_{ext}. The average loader speed was estimated to be 5 miles per hour. The loader operates for the crusher for 100% of the 192 hours per year that the DTG crusher is operated. Multiplying average loader speed by hours of operations gives the vehicle miles traveled (VMT) of 960 miles per year. Control efficiency of 80% was taken from the DeAtley Crushing Company Dust Mitigation Plan and assumed for the dust control measures. Emissions due to loader operations were calculated as shown in Table 7.

Table 7. Anticipated Actual Fugitive Particulate Emissions from Loaders in Work Area

	$PM_{2.5}$	PM_{10}	PM
E, lb/VMT	0.132	1.315	5.467
Eext, lb/VMT	0.106	1.060	4.404
lb/yr (uncontrolled)	101.7	1,017.2	4,227.6
Control efficiency	80.0%	80.0%	80.0%
lb/yr (controlled)	**20.3**	**203.4**	**845.5**

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter; VMT = vehicle miles traveled.

4.2.6 LPL Controlled Fugitive Dust Emissions Summary

Anticipated actual controlled emissions from the LPL and quarry are summarized by category in Table 8.

Table 8. Anticipated Actual Fugitive Particulate Matter Emissions from DTG Crushing, Controlled

	$PM_{2.5}$	PM_{10}	PM
Crushing			
Crushing of Asphalt, Concrete, and Brick	22.96	189.70	341.70
Aggregate Handling and Storage Piles	0.87	5.75	12.16
Vehicle Emissions Associated with Crushing			
Work Area Use by Front Loaders	20.34	203.44	845.52
Total, lb/yr	**44.18**	**398.89**	**1,199.38**
Total, ton/yr	**0.02**	**0.20**	**0.60**

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter.

All emissions are classified as fugitive emissions. Annual emission rates were calculated from the maximum likely annual waste acceptance rate.

4.2.7 Potential to Emit

PTE was calculated by scaling up anticipated actual emissions for the DTG crushing operation and vehicle emissions associated with crushing by a factor or 2.71, which is theoretical maximum operating hours per year divided by anticipated actual operating hours. Fugitive emissions from aggregate handling and storage piles did not change from anticipated actual emissions, because the emission factor is for 8,760 hours per year.

DTG is proposing the 520 operating hours per year used to scale up anticipated actual emissions to potential emissions as a permit condition by which to limit PTE.

PTE from the crushing are summarized by category in Table 9.

Table 9. Potential Fugitive Particulate Matter Emissions from DTG Crushing, Controlled

	$PM_{2.5}$	PM_{10}	PM
Crushing			
Crushing of Asphalt, Concrete, and Brick	62.19	513.76	925.44
Aggregate Handling and Storage Piles	0.87	5.75	12.16
Vehicle Emissions Associated with Crushing			
Work Area Use by Front Loaders	55.10	550.99	2,289.94
Total, lb/yr	**118.16**	**1,070.50**	**3,227.54**
Total, ton/yr	**0.06**	**0.54**	**1.61**

$PM_{2.5}$ = particulate mater 2.5 microns or less in size; PM_{10} = particulate matter 10 microns or less in size; PM = particulate matter.

4.3 Toxic Air Pollutants per Chapter 173-460 WAC

All emissions under consideration for this NSR application are fugitive particulate matter emissions and do not include any toxic air pollutants that are listed in WAC 173-460-150. Diesel powered equipment proposed in this application are all either moved around the site as needed to facilitate operations or is some type of mobile vehicle. Engines used on equipment that moves around the site are classified as nonroad engines, which are regulated under WAC 173 400-035 and are exempt from NSR per WAC 173-400-110(1)(b). Mobile vehicles are not regulated under Chapter 173-400 WAC. Emissions from mobile vehicles are not subject to NSR per WAC 173-400-020(2)(b), therefore Chapter 173-460 WAC does not apply.

4.4 New Source Review Requirement

YRCAA has adopted NSR requirements of WAC 173-400-110 WAC, NSR for sources and portable sources, so the exemptions based on emissions in WAC 173-400-110(5) apply. The exemption levels for particulate matter are: 1.25 ton/yr for PM, 0.75 ton/yr for PM_{10}, and 0.50 ton/yr for $PM_{2.5}$.

The default for calculating PTE is based on uncontrolled annual emissions while operating at rated capacity and 8,760 hours per year, unless there are functional physical or enforceable limits on operations. It is Parametrix's recommendation that 520 hours per year of operation is a practical physical limit on operation of the crusher, due to quantities of asphalt, concrete, and brick being received at the DTG facility. Uncontrolled PTE was determined by dividing controlled PTE emissions by the assumed 80% control factor. The uncontrolled PTE emissions for the DTG crushing operations are: 9.90 ton/yr for PM, 3.25 ton/yr for PM_{10}, and 0.37 ton/yr for $PM_{2.5}$.

The emissions increase for total PM and PM_{10} exceed the exemption levels in WAC 173-400-110(5), so NSR is required.

4.5 Modeling Requirement

Potential emissions increase of $PM_{2.5}$ and PM_{10}, pollutants for which there are ambient standards, are below their respective 10 tons per year (tpy) and 15 tpy threshold rates defined in WAC 173-400-030(30), so modeling of impacts from these pollutants is not considered to be mandatory.

4.6 Public Comment Requirement

Potential emissions increases are less than the emissions thresholds defined in WAC 173-400-030(30), so a thirty-day public comment period is not mandatory per WAC 173-400-171(3)(b), although YRCAA is still required to post an announcement of the receipt of this notice of construction application on their internet website for a minimum of 15 consecutive days.

5. Best Available Control Technology

5.1 Best Available Control Technology for Rock Crushing

Best Available Control Technology (BACT) requirements stated in the Ecology TSD for Rock Crushing Operations and Rock Crushing General Order are proposed as BACT for the DTG crushing operation. These requirements are stated in the BACT section of the Ecology TSD and are incorporated in the control, monitoring, reporting and recordkeeping requirements in TSD and the General Order.

5.2 Best Available Control Technology Proposal

DTG believes that the following proposal for BACT for the proposed crushing operation is the top-ranked control option:

- Facility-wide:
  - → DTG will update the written dust mitigation plan for the LPL as necessary to assure inclusion of the specific dust controls for the crusher that are required in the Ecology Rock Crusher Fugitive Dust Control Plan (FDCP).
  - → All nonroad engines will use ultra-low sulfur diesel or ultra-low sulfur biodiesel (a sulfur content of 15 parts per million (ppm) or 0.0015% sulfur by weight or less), gasoline, natural gas, propane, liquefied petroleum gas (LPG), hydrogen, ethanol, methanol, or liquefied/compressed natural gas (LNG/CNG).
- Unpaved Areas and Graveled Roads:
  - → Water will be applied as necessary to prevent visible emissions.
  - → Mud or dirt track-out onto paved public roads will be minimized and will be removed whenever observed.
  - → Assumed control efficiency for unpaved road control measures: PM, PM_{10}, and $PM_{2.5}$: 80%.
- Unpaved Areas:
  - → Water will be applied as necessary to prevent visible emissions.
  - → Soil disturbances in non-active portions of the LPL will be minimized.
  - → Native vegetation will be restored in areas of the LPL that become permanently closed.
  - → Assumed control efficiency for unpaved road control measures: PM, PM_{10}, and $PM_{2.5}$: 80%.
- Crushing Operations:
  - → DTG will comply with the Ecology Rock Crusher FDCP.
  - → Water spray nozzles will be used at the inlet and conveyors on the crusher and screen as necessary to control release of dust during operation, during periods of no precipitation.
  - → Fine mist water sprayers will be used on the aggregate piles as necessary to control release of dust during periods of no precipitation.

- → During the months that the crusher is operated DTG will perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. DTG will initiate corrective action within 24 hours and complete corrective action as expediently as practical if DTG finds, during an inspection of the water spray nozzles or at any other time that the crusher is in operation, that water is not flowing properly. DTG will record the start and end dates and times of each period of operation of the crusher, and each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in a logbook.
- → Assumed control efficiency for crusher, screen, and aggregate pile control measures: PM, PM_{10}, and $PM_{2.5}$: 80%.

6. Petroleum Contaminated Soil

As stated previously, DTG will submit an additional Notice of Construction application prior to accepting any new PCS, so there will be no new emissions from this emission unit.

7. Applicable Regulations

7.1 Yakima Regional Clean Air Agency

While all of Regulation 1 of the YRCAA applies, the sections cited below have the most direct bearing on operations at the DTG facility.

Section 3.08.A.4 Specific Dust Controls. Paragraphs a through e refer to requirements that have been deleted and replaced with comparable requirements in WAC 173-400 (see Section 6.2 below). Section 3.08.A.4.f requires that any person doing road construction or repair have an adequate supply of water available to control dust at all times. Section 3.08.A.4.g requires a dust control plan, as follows:

g. Site or Project Dust Control Plans. Where the potential exists for fugitive dust emissions, an owner or operator must prepare a site dust control plan and submit it to the authority 15 days prior to the start of any work that will disturb soil stability, cover, or cause fugitive dust emissions.

    1) Dust control plans must identify management practices and operational procedures which will effectively control fugitive dust emissions.

    2) Dust control plans must contain the following information:

        a) A detailed map or drawing of the site;

        b) A description of the water source to be made available to the site, if any;

        c) A description of preventive dust control measures to be implemented, specific to each area or process;

d) A description of contingency measures to be implemented in the event any of the preventive dust control measures become ineffective;

e) A statement, signed by the owner or operator of the site, accepting responsibility for the implementation and maintenance of the dust control plan;

f) The name and telephone number of person(s) available 24 hours a day to mitigate any episodes of dust emissions; and

g) If the ownership or control of all or part of the site changes, the plan must be resubmitted by the new party and approved by the authority.

3) The authority will review the plan and either approve or require modification of the plan.

4) An owner or operator must implement effective dust control measures outlined in approved plans.

Section 4.01.F.3 Operational and Maintenance Plan. Owners or operators of registered air contaminant sources must develop and maintain an operation and maintenance plan for process and control apparatus. The plan must:

a. Reflect good industrial practice;

b. Include a record of performance and periodic inspections of process and control apparatus;

c. Be reviewed and updated by the source owner or operator at least annually, and

d. Be made available to the authority upon request.

7.2 Washington Administrative Code

WAC 173-400-035(1): Applicability. This section applies to any nonroad engines as defined in WAC 173-400-030, except for:

(a) Any nonroad engine that is:

(i) In or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function; or

(ii) In or on a piece of equipment that is intended to be propelled while performing its function.

(iii) That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

(b) Nonroad engines with a cumulative maximum rated brake horsepower of 500 BHP or less.

(c) Engines being stored in work centers, garages, or engine pool sites prior to being dispatched to the field for use and that do not provide back-up power at the work center, garage, or engine pool. Such engines may be operated at these facilities only for the purpose of engine maintenance, testing, and repair.

WAC 173-400-035(2): Nonroad engines are not subject to:

(a) New source review.

(b) Control technology determinations.

(c) Emission limits set by the state implementation plan (SIP).

WAC 173-400-035(3): Fuel standards. All nonroad engines must use ultra-low sulfur diesel or ultra-low sulfur biodiesel (a sulfur content of 15 ppm or 0.0015 percent sulfur by weight or less), gasoline, natural gas, propane, liquefied petroleum gas (LPG), hydrogen, ethanol, methanol, or liquefied/compressed natural gas (LNG/CNG). A facility that receives deliveries of only ultra-low sulfur diesel or ultra-low sulfur biodiesel is deemed to be compliant with this fuel standard.

WAC 173-400-040(2): No person shall cause or allow the emission for more than three minutes, in any one hour, of an air contaminant from any emissions unit which at the emission point, or within a reasonable distance of the emission point, exceeds twenty percent opacity except when the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed twenty percent.

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(5): Odors. Any person who shall cause or allow the generation of any odor from any source or activity which may unreasonably interfere with any other property owner's use and enjoyment of his property must use recognized good practice and procedures to reduce these odors to a reasonable minimum.

WAC 173-400-040(6): Emissions detrimental to persons or property. No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.

WAC 173-400-040(8): Concealment and masking. No person shall cause or allow the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of this chapter.

WAC 173-400-040(9): The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from becoming airborne and must maintain and operate the source to minimize emissions.

WAC 173-400-110: The YRCAA has adopted the Department of Ecology's regulation for new source review (NSR) for sources and portable sources, which can be found at WAC 173-400-110.

WAC 173-400-111: Processing notice of construction applications for sources, stationary sources and portable sources. This rule describes the permitting process and is available at WAC 173-400-111.

WAC 173-400-112: New sources in attainment or unclassifiable areas—Review for compliance with regulations. This rule sets forth requirements for new or modified sources in areas of the YRCAA that are in attainment or unclassified with regard to ambient air quality standards. This rule is available at WAC 173-400-113.

Chapter 173-401 WAC: This chapter establishes the elements of a comprehensive Washington State air operating program consistent with the requirements of Title V under the Federal Clean Air Act.

WAC 173-401-200(19) "Major Source": means any stationary source (or any group of stationary sources) that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control) belonging to a single major industrial grouping and that are described in (a), (b), or (c) of this subsection.

(b) For the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same major group (i.e., all have the same two-digit code) as described in the *Standard Industrial Classification Manual*, 1987.A major stationary source of air pollutants, as defined in section 302 of the FCAA, that directly emits or has the potential to emit, one hundred tpy or more of any air pollutant subject to regulation (including any major source of fugitive emissions of any such pollutant). The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of this section, unless the source belongs to one of the following categories of stationary source:

(i) Coal cleaning plants (with thermal dryers);

(ii) Kraft pulp mills;

(iii) Portland cement plants;

(iv) Primary zinc smelters;

(v) Iron and steel mills;

(vi) Primary aluminum ore reduction plants;

(vii) Primary copper smelters;

(viii) Municipal incinerators capable of charging more than two hundred fifty tons of refuse per day;

(ix) Hydrofluoric, sulfuric, or nitric acid plants;

(x) Petroleum refineries;

(xi) Lime plants;

(xii) Phosphate rock processing plants;

(xiii) Coke oven batteries;

(xiv) Sulfur recovery plants;

(xv) Carbon black plants (furnace process);

(xvi) Primary lead smelters;

(xvii) Fuel conversion plants;

(xviii) Sintering plants;

(xix) Secondary metal production plants;

(xx) Chemical process plants;

(xxi) Fossil-fuel boilers (or combination thereof) totaling more than two hundred fifty million British thermal units per hour heat input;

(xxii) Petroleum storage and transfer units with a total storage capacity exceeding three hundred thousand barrels;

(xxiii) Taconite ore processing plants;

(xxiv) Glass fiber processing plants;

(xxv) Charcoal production plants;

(xxvi) Fossil-fuel-fired steam electric plants of more than two hundred fifty million British thermal units per hour heat input; or

(xxvii) All other stationary source categories, which as of August 7, 1980, were being regulated by a standard promulgated under section 111 or 112 of the FCAA;

Chapter 173-460 WAC: This chapter establishes the systematic control of new or modified sources emitting toxic air pollutants (TAPs).

7.3 Federal

Subpart OOO of 40 CFR 60— **Standards of Performance for Nonmetallic Mineral Processing Plants**. *Applicable* because the DTG crushing operation is portable and has a production capacity in excess of 150 tons per hour. The DTG crushing operation is proposing to use wet suppression to control fugitive emissions, so the following requirements in Subpart OOO apply:

§60.674(b): DTG must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system, and must initiate corrective action within 24 hours and complete corrective action as expediently as practical if it is found that water is not flowing properly during an inspection of the water spray nozzles. DTG must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

§60.674(b)(1): If DTG relies on water carryover from upstream water sprays to control fugitive emissions, then the DTG facility is exempt from the 5-year repeat opacity testing requirement specified in Table 3 of Subpart OOO provided that the DTG facility meets the criteria below:

(i) DTG conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to §60.674(b) and § 60.676(b), and

(ii) DTG designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under § 60.11 of 40 CFR 60 and § 60.675 of Subpart OOO.

§60.674(b)(2) If DTG ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays.

§60.676(b)(1) DTG must record each periodic inspection required under § 60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). DTG must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to YRCAA upon request.

§60.676(j) DTG shall notify YRCAA of the date of initial startup of the crushing facility.

S60.676(k) DTG shall submit notifications and reports required under Subpart OOO to YRCAA.

Table 3 to Subpart OOO—Fugitive Emission Limits: Visible emissions from screening operations and transfer points from conveyors shall not exceed 10% opacity as measured by Method 9 of Appendix B of 40 CFR 60. Visible emissions from crushing operations shall not exceed 15% opacity as measured by Method 9 of Appendix A of 40 CFR 60. Only the initial performance test is required if DTG complies with §60.674(b).

Subpart AAAA of 40 CFR 63—National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills. *Not applicable* because the DTG LPL is not a municipal solid waste (MSW) landfill.

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. *Not applicable* because the DTG LPL does not have any stationary compression ignition (CI) internal combustion engines that are applicable to this subpart.

Subpart JJJJ of 40 CFR 63—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. *Not applicable* because the DTG LPL does not have any stationary spark ignition (SI) internal combustion engines that are applicable to this subpart.

Subpart ZZZZ of 40 CFR 63—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. *Not applicable* because the DTG LPL does not have any stationary reciprocal internal combustion engines (RICE) that are applicable to this subpart.

8. Public Notice Requirement

Public notice should not be required because the application does not ask for or require any of the actions subject to a mandatory public comment period per WAC 173-400-171(3).

9. Operating Permit or Prevention of Significant Deterioration

The DTG facility does not meet major source criteria for the air operating permit program under 40 CFR 70 or the Prevention of Significant Deterioration (PSD) program under 40 CFR 52.21.

Appendix A

Yakima Regional Clean Air Agency New Source Review Forms – LPL

Yakima Regional Clean Air Agency

Instructions for Completing a Notice of Intent (NOI) to Install or Establish a Portable Air Contaminant Source

☞ **Each NOI for the construction, installation or establishment of a new portable air contaminant source, or modification of existing portable air pollution source or control equipment or permit, needs to be accompanied by the following information to be considered complete:**

Included	N/A	
☒	☐	Process flow sheets and equipment layout diagrams.
☐	☒	Control equipment manufacturer, model number, size, serial numbers (for each piece of control equipment).
☒	☐	Quantify average and maximum hourly throughput values, average yearly totals, and maximum concentrations for each pollutant.
☒	☐	Applicant's calculation of the kinds and amounts of emissions for each emission point, materials handling operation or fugitive category (both controlled and uncontrolled).
☐	☒	Plot plan including identification of proposed emission points to the atmosphere, distance to property boundaries, height of buildings and stack height above ground level.
☐	☒	Identification of raw materials and/or product specifications (physical and chemical properties) and typical ranges of operating conditions as related to each emission point (toxic air contaminants require a separate summary); Material Safety Data Sheets (MSDS) should be included in the NOI for all compounds used.
☒	☐	Identification of the methods/equipment proposed for prevention/control of emissions to the atmosphere.
☒	☐	Information sufficient to demonstrate the ability of the emission controls proposed as being consistent with those provided in the applicable regulations (BACT/NSPS/RACT/NESHAPS/LAER analysis), see attached worksheet for typical layout of BACT analysis information.
☐	☒	The kinds and amounts of emission offset credits proposed for assignment when operations are within a non-attainment boundary (see WAC 173-400-120 and 131).
☐	☒	Estimates of the proposed project ambient impact under average and least favorable conditions where pertinent to PSD (WAC 173-400-720) or Toxic Air Pollutants (WAC 173-460) requirements.
☒	☐	Additional information, evidence, or documentation as required by the Board of Directors, or the Control Officer, to show that the proposed project will meet federal, state and local air pollution control regulations.
☐	☒	NOIs that include previously approved or authorized equipment require that additional information regarding previous owners or approvals be provided so that YRCAA records can be updated. Equipment permitted and/or approved for a given company cannot be authorized without a legal name change, purchase of company or equipment, or a legal contract or subcontract to do business with or for the approved source. Responsibility for operation of authorized equipment rests with the permitted source.
☒	☐	All NOIs need to be accompanied with a completed SEPA checklist or SEPA determination.

☞ The NOI transmittal shall conform to YRCAA review requirements wherever possible as detailed in the General Regulations for Air Pollution Sources (WAC 173-400).

☞ Each drawing, document, or other form of transmittal considered by the applicant to be proprietary and confidential must be suitably identified as confidential in red ink, and signed and dated by the applicant or its agent. Be aware that YRCAA follows the requirements in 40 CFR 2 for determination of confidentiality. YRCAA may not process company sensitive information as confidential.

☞ Permits to Operate (to construct, modify, or install) are issued for specific equipment or processes described in the NOI. Changes to the processes or control equipment are not allowed without a separate NOI and Permit to Operate if these changes result in an emission of a different type or an increase in emissions. Process equipment changes that result in decreased emissions require notification to YRCAA.

☞ The SIC code is identified as the four digit major group classification in the 1987 Standard Industrial Code Classification Manual listing of SIC codes can be obtained for free from the internet.

☞ Mail or deliver in person the completed NOI package to:

Yakima Regional Clean Air Agency
186 Iron Horse Court Suite 101
Yakima, WA 98901-2303

☞ **NOI fees must accompany NOI for the NOI to be considered complete. An invoice will be sent out for the Engineering review after final decision on the NOI. Make checks payable to "Yakima Regional Clean Air Agency" or "YRCAA".**

☞ **The NOI package submitted must be complete. All NOI s are screened for completeness before processing. Applicants submitting incomplete NOI packages will be notified of their incomplete status and a delay in processing may result.**

Any questions regarding the process and requirements for completing this Notice for the purpose of obtaining a Permit to Operate should be addressed to: Hasan M. Tahat, PhD - Office of Engineering and Planning – 834-2050 Ext 105 - hasan@yrcaa.org

Yakima Regional Clean Air Agency

BACT ANALYSIS WORKSHEET

Facility Name: DTG REcycle **Date:** 11/27/2023

CONTROL ALTERNATIVE	EMISSIONS [lbs/hr] & [tons/yr]	EMISSIONS REDUCTION (a) [tons/yr]	INSTALLED CAPITAL COST (b) [$]	TOTAL ANNUALIZED COST (c,g) [$]	AVERAGE COST EFFECTIVENESS OVER BASELINE (d) [$/ton]	INCREMENTAL COST EFFECTIVENESS (e) [$/ton]	ENERGY INCREASE OVER BASELINE (f) [mmBtu/yr]	TOXICS IMPACT [Yes/No]	ADVERSE ENVIRONMENTAL IMPACT [Yes/No]
1) PTE Fugitive emissions, controlled per FDCP PM:	9.26 1.61								
2) PM10:	3.75 0.54								
3) PM2.5:	0.43 0.06								
4)									
5) Uncontrolled Baseline (worst case - no controls)									

(a) Emissions reduction over baseline control level.
(b) Installed capital cost relative to baseline.
(c) Total annualized cost (capital, direct, and indirect) of purchasing, installing, and operating the proposed control alternative. A capital recovery factor approach using a real interest rate (i.e., absent inflation) is used to express capital costs in present-day annual costs.
(d) Average cost effectiveness over baseline is equal to total annualized cost for the control option divided by the emissions reductions resulting from the uncontrolled baseline.
(e) The optional incremental cost effectiveness criterion is the same as the average cost effectiveness criteria except that the control alternative is considered relative to the next most stringent alternative rather than the baseline control alternative.
(f) Energy impacts are the difference in total project energy requirements with the control alternative uncontrolled baseline expressed in equivalent millions of Btus per year.
(g) Assumptions made on catalyst life may have a substantial affect upon cost effectiveness.

Notes:

The number of alternatives to be evaluated will vary depending on application.
Values for each variable should be provided as they are applicable. Use N/A if not applicable.
Emission rates are the expected or predicted emission rates.
Calculations should provide for a range of alternatives.
Emissions reduction should use estimated efficiency if actual efficiency is unknown - should so state.
Attach worksheets as necessary to substantiate above values.

YAKIMA REGIONAL CLEAN AIR AGENCY

Filing Fee: $400.00

186 Iron Horse Court Suite 101, Yakima WA 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
yakimacleanair.org

This Notice of Intent Applies Only to Construction, Installation or Establishment of Portable Sources for Not More Than 365 Days

I. General Information:

BUSINESS NAME DTG Recycle

MAILING ADDRESS 41 Rocky Top Road, Yakima, WA 98908

PHONE NUMBER (425) 539-0854 office FAX No. (509) 421-4807 cell isutton@dtgrecycle.com

NATURE OF BUSINESS Portable rock crusher

TYPE OF PROCESS, EQUIPMENT, OR APPARATUS Portable rock crusher and associated vehicles

LIST OF AIR CONTAMINANT(S) WHICH WILL BE PRODUCED AND/OR CONTROLLED Particulate matter fugitive dust will be controlled at the site by watering the rock crusher, material piles, and unpaved roadways, in accordance with our fugitive dust control plan.

ESTIMATED COSTS: OF BASIC SOURCE EQUIPMENT $ $400,000

OF CONTAMINANT CONTROL APPARATUS $

ESTIMATED STARTING DATE: ASAP after issuance of Order of Approval by YRCAA

ESTIMATED COMPLETION DATE: None

ADDRESS WHERE EQUIPMENT WILL BE LOCATED: LPL/MRF Property.

Describe Input to Output Process (Attach drawings, schematics, prints, or block diagrams)

Process: Production Output per Year (tons, pounds, etc) anticipated actual: 62,400 tons PTE: 169,000 tons

Maximum Output per Hour (tons, pounds, etc) Max. feed size: 21 inch. Max feed rate: 325 ton/hr

Percentage of Production (%)

Dec - Feb 25% Mar – May 25%

Jun - Aug 25% Sep – Nov 25%

Operating Schedule: Hrs/Day antic. actual: 8 PTE: 10 Days/Wk antic. actual: 1 PTE: 1 Wks/Yr antic. actual: 24 PTE: 52

Compliance with SEPA (State Environmental Policy Act) - Check One of the Options Below:

☒ A DNS or EIS has been Issued by Another Agency for this Project and a Copy is Attached.

☐ If no DNS or EIS Exists for this Project, a Completed Checklist for this Project is Attached.

YRCAA SEPA checklist is available by phone, or by our website at http://www.yakimacleanair.org

☐ I certify that the SEPA has been satisfied for this project by:

_____ *by* _____

Date *Government Agency*

II. Emissions Estimations and Calculations:

1. Criteria Pollutants (gr/dscf, tons/yr, lbs/hr., ppm, etc.)

Particulate (PM_{10},$PM_{2.5}$) Anticipated Actual, ton/yr PM: 0.60, PM10: 0.20, PM2.5 0.02 PTE, ton/yr: PM: 1.61, PM10: 0.54, PM2.5 0.06

Volatile Organic Compounds _____

Nitrogen Oxides _____

Sulfur Oxides _____

Carbon Monoxide _____

Lead _____

2. Toxic Pollutants (Name) Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.)

3. Fugitive Pollutants (Source) Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.)

DTG Crushing PTE, ton/yr: PM: 1.61, PM10: 0.54, PM2.5 0.06

4. Air Pollution Modeling

Results _____

Computer Printout Attached? ☐Yes ☐No

III. Emission Data:

1. Stack Height (Feet)_____ Inside Diameter (feet)_____

Gas Exit Temp (degrees F)_____ Gas Exit Velocity (ft/min)_____

Flow Rate (cfm)_____

Shared Stack? If a shared stack, identify process (es) or point(s) which share the stack.

Distance from Stack to Property Line _____

2. Discharge Point or points (if no stack or other than stack)

Height (feet)_____ Inside Diameter (feet)_____

Gas Exit Temp (degrees F)_____ Gas Exit Velocity (ft/min)_____

Flow Rate (cfm) _____

Shared discharge point? If a shared discharge point, identify process (es) or point(s) which share the discharge point. _____

_____

Distance from discharge point to Property Line _____

3. Fuel Type_____ % Sulfur_____

% Ash_____ Unit of Measure (gal./cu.ft./etc.)_____

BTU per Unit of Measure_____ Consumption Units per Year_____

Maximum Consumption Units per Hour _____

4. Building Dimensions

Height (feet)_____ Length (feet)_____ Width (feet)_____

IV. Air Pollution Control Equipment:

Baghouse Type_____ Efficiency _____

Bag Height (feet)_____ Bag Diameter (feet) _____

Filter Area (feet squared)_____ Blower Flow Rate (cfm)_____

Filter Media_____ Dimensions (feet)_____

Discharge Area Dimensions (feet)_____

Cleaning Mechanism (shake) (air psi)_____

Other Data _____

Scrubber Type_____ Efficiency_____

Gas Differential Pressure (psi)_____ Liquor Differential Pressure (psi)_____

Liquor Flow (gpm)_____ Discharge Area Dimensions (feet^2)_____

Gas Flow (cfm)_____ Other Data_____

Cyclone Type_____ Efficiency_____

Gas Flow (cfm)_____ Discharge Area Dimensions (feet^2) _____

Other Data _____

Precipitator Type_____ Efficiency_____

Gas Flow (cfm)_____ Gas Velocity (ft/sec)_____

Residence Time _____ Gas Differential Pressure (psi)_____

Precipitation Rate (ft/sec)_____ Discharge Area Dimensions (feet^2)_____

Other Data _____

Ad/Absorp Type_____ Efficiency_____

Gas Flow_____ Gas Velocity (ft/sec)_____

Gas Temp (degree F)_____ Bed Volume (ft^3)_____

Bed Dimensions (feet)_____ Capacity (hours)_____

Contaminant (lb/day)_____ Regeneration time (hours)_____

Other Type Wet suppression Efficiency _____

Gas Flow (cfm)_____ Discharge Area Dimensions (feet)_____

Other Data _____

V. Additional Information:

1. Fugitive Dust Control Plan (Attach if Necessary)
2. Attach Operation and Maintenance Manual.

   ☐Yes ☐No, if not, why not? _____
3. Attach Vendor Information or Manufacturer's Instructions on Pollution Control Equipment.

   ☐Yes ☐No, if not, why not? _____
4. Attach Related Information on Chemicals or Materials that will be emitted

   (MSDS Sheets, Company Information, etc.) ☐Yes ☐No, if not why not? _____

APPLICANT: I hereby certify that the information contained in this Notice, including supplemental forms and data, when required is, to the best of my knowledge, complete and correct. I also agree to all fees for processing this Notice and grant permission for YRCAA staff to enter the premises for inspection.

Signature Ian Sutton, P.E. Date 03/25/24

Title Director of Engineering Date 03/25/24

Name and Title of Individual Filling out Form:

Name (print) Alan T. Butler, P.E.

Signature _____

Name and Title of Contact Person, if Different from Above:

Name _____

Title _____

A filing fee of $400.00 must be paid before review will begin. A surcharge fee for time required to prepare and process the application will be invoiced after the permit to operate is issued.

OFFICAL USE ONLY

YRCAA NSR No: NSRP-02-DTGEI-24 Date Fee Paid: 03/25/2024

Received by: H.T. by email Filing Fee: **$400.00** PAID online 03/25/2024

Appendix B

Yakima Regional Clean Air Agency Yakima Health District Permits

Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, Washington 98903
Phone (509) 575-4040

June 24, 2020

Mike Sheldon
DTG Enterprises, Inc.
P.O. Box 14203
Mill Creek, WA 98082

RE: DTG Enterprises, Inc. Limited Purpose Landfill permit (HSW2019-00020).

Mr. Sheldon,

Enclosed with this letter is the permit for your Limited Purpose Landfill. The submitted operations plan dated June 22, 2020 is hereby approved. **Please be aware of the requirements in condition 23.**

If you have any questions, please call me at (509) 249-6562.

Sincerely,

Ted Silvestri, R.S.
Environmental Health Specialist

cc Washington State Department of Ecology

Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, Washington 98903
Phone (509) 575-4040

SOLID WASTE PERMIT

TO OPERATE THE

DTG ENTERPRISES, INC. LIMITED PURPOSE LANDFILL

Permit number HSW2019-00020

This permit is valid only based upon the accuracy of the below information and compliance with any attached conditions. The permit is not transferable. Any changes must have prior approval of, or be initiated by, the Yakima County Health District. Any fees paid are not refundable in whole or in part after the permit issue date.

To Operate:	DTG Enterprises, Inc. Limited Purpose Landfill
Issued To (Permittee):	DTG Enterprises, Inc.
Permittee Mailing Address:	P.O. Box 14203 Mill Creek, WA. 99082
Date Issued:	June 24, 2020
Expiration Date:	Last day of June 2021
Fee Amount:	$1,870.00
Fee Paid:	$1,870.00
Site Location:	41 Rocky Top Rd. Yakima, WA 98908
Conditions:	Attached
Authorizing Signature	Ted Shultz For Yakima Health District

DTG ENTERPRISES, INC.
LIMITED PURPOSE LANDFILL

Demonstrations

A. WAC 173-350-400(2)(c) requires that the landfill's active area be 200 feet from a stream. It has been successfully demonstrated in the application dated December 2007 that a 50' setback to the drainage channel on this site is adequate. A 50 foot setback to the intermittent drainage way is hereby approved.

B. It has been demonstrated in the application dated December 2007 that the proposed alternative cover and liner is as protective as the prescriptive cover and liner for this site. The proposed alternative cover and liner are hereby approved.

C. It has been demonstrated in the *Geotechnical Evaluation Stability of Waste Embankments* dated March 5, 2008 that a 2:1 final slope grade is acceptable for this site. The 2:1 final slope is hereby approved.

Variance

The applicant has requested and has been granted a reduction in the setback between the fill to the property line from 100 feet to 50 feet.

Conditions

1. The permittee shall operate the facility in conformance with the Yakima County Comprehensive County-wide Solid Waste Management Plan and all written communications from the Yakima Health District.

2. The permittee shall keep records in compliance with WAC 173-350-400.

3. The permittee shall employ measures to prevent emission of fugitive dusts (i.e. watering of roads and covering).

4. Timbers, wood and other combustible waste shall be covered as needed during the summer months to avoid a fire hazard.

5. No burning of any waste will be allowed on the site.

6. The permittee shall close the facility in accordance with the approved closure plan contained in the application dated April 27, 2015, amended July 2015.

7. The permittee shall meet the requirements of WAC 173-350-400(8)(e), Recording with the County Auditor.

8. The permittee shall only accept approved wastes as described in the application dated v1.0 June 2020 (see attached). ***No tires, household waste, grass clippings, asphalt less then 5 years old, old fuel or oil tanks shall be accepted.***

9. The permittee shall prevent unauthorized disposal during off-hours by controlling entry (i.e. lockable gate or barrier) when the facility is not being used.

10. The permittee shall operate the site in compliance with the approved operation plan contained in the application dated June 2020.

11. The permittee shall construct the final grade of the site to direct runoff away from the filled area as described in the closure plan contained in the application dated April 27, 2015, amended July 2015.

12. The permittee shall submit annual reports to the Yakima Health District and the Department of Ecology as detailed in WAC 173-350-400(4)(e). These reports must detail volumes and types of materials received since the last report and the volumes and types of materials shipped since the last report. This includes all materials removed from the waste for recycling or that have passed through this facility for recycling.

13. The permittee shall have a Certified Landfill Operator on-site or on-call at all times the landfill is open to the public.

14. If the working face gets larger than 8,000 square feet in size, the facility will notify the Yakima Health District and not accept any more waste until the working face is smaller than 8,000 square feet.

15. All plans and notifications shall be submitted to the Yakima Health District and the Department of Ecology for review and approval prior to construction.

16. The permittee shall handle all salvaging/recycling as described in the operations plan dated June 2020.

17. All salvaging/recycling must occur within the run-on/run-off controls for the landfill/PCS Remediation Site.

18. All open piles of salvaged/recyclable materials must comply with WAC 173-350-320.

19. The permittee shall not dispose of municipal solid waste in the DTG, Inc. Limited Purpose Landfill.

20. The permittee is approved to salvage/recycle concrete, asphalt, metal, plastic and wood waste at this time.

21. Any other proposed waste stream for salvaging/recycling must be approved by the Yakima Health District prior to commencing recycling operations with that waste stream.

22. This facility is not a material recovery facility and should not accept source separated recyclables for recycling.

23. Financial assurance paperwork appears to be in order. Cost estimates must be reworked and submitted prior to the next permit renewal (in 1 year) and must be submitted with the permit renewal at that time. Provide closure cost estimates for all future cells/expansions/phases in addition to the current landfill cell.

24. No reduction in ground water monitoring frequency or landfill gas monitoring frequency is allowed without the written approval of the Yakima Health District.

25. Dredge spoil disposal must be approved by the Yakima Health District prior to acceptance at the landfill for disposal. Each of these approvals is one-time only and future dredge spoil approvals must be obtained before accepting other dredge spoils.

The waste types that will be accepted at the LPL include:

- Cured Concrete;
- Asphaltic Materials;
- Brick and Masonry;
- Ceramic Materials;
- Glass;
- Stainless Steel ;
- Aluminum;
- Lime;
- Dirt and Rock ;
- Construction, demolition, and land-clearing debris;
- Wood-waste;
- Ash (other than special incinerator ash); and
- Dredge spoils with prior approval.

Other waste might be acceptable for disposal in this landfill on a case-by-case basiss with prior approval of the Yakima Health District.

The waste types approved for recycling at the LPL include:

- Concrete;
- Asphalt
- Metal
- Wood

Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, Washington 98903
Phone (509) 575-4040

June 24, 2020

Mike Sheldon
DTG Enterprises, Inc.
P.O. Box 14203
Mill Creek, WA 98082

RE: Piles Used For Storage or Treatment Permit (Petroleum Contaminated Soils Treatment Facility Permit; permit number HSW2020-00001).

Mr. Sheldon:

The Yakima Health District has reviewed the *DTG Recycle – Yakima Petroleum Contaminated Soil Treatment Facility Operations Plan,* dated June 9, 2020. We have also consulted with the Washington State Deparment of Ecology regarding this operations plan. This operations plan is approved.

Enclosed with this letter is the permit for your Piles Used For Storage or Treatment (Petroleum Contaminated Soil (PCS) Treatment site). If you have any questions, please call me at (509) 249-6562.

Sincerely,

Ted Silvestri, R.S.
Environmental Health Specialist

cc: Department of Ecology

Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, Washington 98903
Phone (509) 575-4040

SOLID WASTE PERMIT

TO OPERATE THE

DTG RECYCLE – YAKIMA
PETROLEUM CONTAMINATED SOIL TREATMENT SITE

PERMIT NUMBER HSW2020-00001

This permit is valid only based upon the accuracy of the below information and compliance with any attached conditions. The permit is not transferable. Any changes must have prior approval of, or be initiated by, the Yakima County Health District. Any fees paid are not refundable in whole or in part after the permit issue date.

To Operate:	DTG Recycle Petroleum Contaminated Soil Treatment Site
Issued To (Permittee):	DTG Enterprises
Permittee Mailing Address:	P.O. Box 14203 Mill Creek, WA 908082
Date Issued:	June 24, 2020
Expiration Date:	End of June 2021
Fee Amount:	$1,870.00
Fee Paid:	$1,870.00
Site Location:	41 Rocky Top Rd.
Conditions:	Attached

Signature: _____
Health Officer or Designee

DTG RECYCLE - YAKIMA PCS TREATMENT SITE
PERMIT CONDITIONS
Permit Number HSW2020-00001

1. All material received on-site will be handled in accordance with the operations plan.

2. No material will be accepted without a letter from the Yakima Health District approving treatment at this site.

3. When accepting soils for petroleum remediation, no contaminants, other than petroleum, can exceed the MTCA level A limits for soils.

4. No material will be removed from the site without first submitting a request to the Yakima Health District and receiving written permission to remove the material. The request to remove the material must include:
   A. The name of the producer of the material.
   B. The test data on the material, including all test results of the material from start to finish.
   C. The proposed location and end use of the material.

5. The permittee will comply with the Final Closure Plan.

6. The permittee shall obtain all other federal, state, and local permits or licenses which are required for this operation.

7. If changes or exceptions to the normal operating hours are proposed, notify the Yakima Health District in advance.

8. All activities at this facility must be in compliance with WAC 173-350.

Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, Washington 98903
Phone (509) 575-4040

July 8, 2021

Mike Sheldon
DTG Enterprises, Inc.
P.O. Box 14203
Mill Creek, WA 98082

RE: DTG Enterprises, Inc. Material Recovery Facility permit (HSW2020-00003).

Mr. Sheldon,

Enclosed with this letter is the permit for your Material Recovery Facility. Please remember that the facility should at all times operate in compliance with local, state and federal rules and avoid participating in sham recycling activities. If violations of rules or sham recycling activities are discovered, the Yakima Health District will abate those violations as appropriate.

If you have any questions, please call me at (509) 249-6562.

Sincerely,

Ted Silvestri, R.S.
Environmental Health Specialist

cc Washington State Department of Ecology

Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, Washington 98903
Phone (509) 575-4040

SOLID WASTE PERMIT

TO OPERATE THE

DTG ENTERPRISES, INC. MATERIAL RECOVERY FACILITY

Permit number HSW2020-00003

This permit is valid only based upon the accuracy of the below information and compliance with any attached conditions. The permit is not transferable. Any changes must have prior approval of, or be initiated by, the Yakima County Health District. Any fees paid are not refundable in whole or in part after the permit issue date.

To Operate:	DTG Enterprises, Inc. Material Recovery Facility
Issued To (Permittee):	DTG Enterprises, Inc.
Permittee Mailing Address:	P.O. Box 14203 Mill Creek, WA. 99082
Date Issued:	July 8, 2021
Expiration Date:	Last day of July 2022
Fee Amount:	$523.00
Fee Paid:	$523.00
Site Location:	41 Rocky Top Rd. Yakima, WA 98908
Conditions:	Attached
Authorizing Signature	Ted Shuttleworth For Yakima Health District

DTG ENTERPRISES, INC.
MATERIAL RECOVERY FACILITY

WAC 173-350-210(4)(e) requires an impervious tipping floor. The applicant has successfully demonstrated that the lack of an impervious surface on the tipping floor is as protective of human health and the environment in this case. The approval of this variance applies as long as the tipping floor is within the landfill footprint.

Since the applicant proposes to not have an impervious tipping floor and to utilize the existing permitted active landfill area, WAC 173-350-210(4)(g) does not apply. This variance is only in effect as long the tipping floor is within the landfill footprint and the Limited Purpose Landfill continues to be permitted.

WAC 173-350-210(4)(f) requires a cover over the tipping floor. The applicant has successfully demonstrated that the lack of a cover is protective of human health the the environment as long as the tipping floor is within the landfill footprint.

Conditions

1. The permittee shall operate the facility in conformance with the Yakima County Comprehensive County-Wide Solid Waste Management Plan and all written communications from the Yakima Health District.

2. The permittee shall keep records in compliance with WAC 173-350-210.

3. The permittee shall employ measures to prevent emission of fugitive dusts (i.e. watering of roads and working area).

4. No burning of any waste will be allowed on the site.

5. The permittee shall close the facility in accordance with the approved closure plan contained in the application dated May 2021.

6. The permittee shall prevent unauthorized dumping during off-hours by controlling entry (i.e. lockable gate or barrier) when the facility is not being used.

7. The permittee shall operate the site in compliance with the approved operation plan contained in the application dated May 2021 (v1.2).

8. The permittee shall submit annual reports to the Yakima Health District and the Department of Ecology as detailed in WAC 173-350-210(6)(b). These reports must detail volumes and types of materials received since the last report, the volumes and types of materials shipped (recycled) since the last report, and volumes and types of materials disposed since the last report.

9. All salvaging and recycling must occur within the run-on/run-off controls for the landfill.

10. All open piles of salvaged/recyclable materials must comply with WAC 173-350-320 – Piles Used For Storage Or Treatment.

11. The permittee shall not accept materials containing municipal solid waste.

12. Any other proposed waste stream for salvaging/recycling must be approved by the Yakima Health District, with concurrence from Ecology, prior to commencing recycling operations with that waste stream.

13. Only Material Recovery Facility residuals from this Material Recovery Facility may be disposed of in the DTG Limited Purpose Landfill (if the material is appropriate for disposal in this landfill). No residuals from other Material Recovery Facilities may be disposed of in this landfill.

14. All UTC standards for the transportation of solid waste, including recyclable materials, must be complied with.

15. Any materials that could be negatively impacted by precipitation or exposure are to be kept in covered containers.

16. All recyclables stored at this site must be protected as commodities. (They must be protected from degradation.)

17. The permittee must comply with all applicable regulations.

The waste types that will be accepted at the Material Recovery Facility include:

- Cured concrete
- Asphaltic materials
- Metal
- Construction, demolition and land clearing debris
- Wood

Other waste streams may be acceptable for recycling at this facility with prior approval of the Yakima Health District with concurrence from the Washington State Department of Ecology.

Appendix C

SEPA Determinations of Non-Significance

DETERMINATION OF NONSIGNIFICANCE

1. **Description of Proposal:** Remediate petroleum contaminated soil at a fifteen-acre site adjacent to an existing remediation facility.

2. **Proponent:** Ron Anderson
   41 Rocky Top Road
   Yakima, WA 98908

3. **Location of Proposal:** West of Rocky Top Road (a private road) about one mile west of Summitview Road and nine miles northwest of Yakima. (Parcel No. 171310-24001)

4. **Lead Agency:** Yakima County Planning Department

5. **File No:** ER-43-1992

6. The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). The decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

   This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by September 25, 1992.

7. **Responsible Official:** STEVE ERICKSON

8. **Position/Title:** Assistant Director of Planning

9. **Address:** Room 417, Courthouse
   Yakima, WA 98901

10. **Date:** September 10, 1992

11. **Signature:** Steve Erickson

DETERMINATION OF NON-SIGNIFICANCE

1. **Description of Proposal:** The Yakima County Planning Division has received a request to expand the existing limited purpose landfill (LPL) by 64 acres for a total area of approximately 125 acres. The types of waste accepted at the LPL are: cured concrete, asphaltic materials, brick and masonry, ceramic materials, glass, stainless steel, aluminum, lime, dirt and rock, CDL (construction, demolition, and land clearing) debris, wood waste, ash, and dredge spoils. All other types of waste, including liquid waste, is prohibited from internment at the LPL.

2. **File Number:** SEP2015-00024

3. **Owner:** Ron Anderson
41 Rocky Top Road
Yakima, WA 98908

Proponent: Brown and Caldwell
Attn: Ian Sutton
701 Pike Street, Suite 1200
Seattle, WA 98101

4. **Location of Proposal:** 41 Rocky Top Road, Yakima, WA. The property is located south of Rocky Top Road, about 3/4 miles east of the intersection of Rocky Top Road and Summitview Road and approximately 3 miles northwest of the City of Yakima. (Parcel No. 171310-31003)

5. **Lead Agency:** Yakima County Planning Division

6. **Determination:** The lead agency has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the development regulations and comprehensive plan adopted under chapter 36.70A RCW, and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158. Our agency will not require any additional mitigation measures under SEPA. This decision was made after a careful review of the completed environmental checklist, a review of other laws, rules, and regulations, and other information on file with the lead agency. This information (including all environmental documentation) is available to the public on request and can be examined in our offices during regular business hours or online at www.yakimap.com/permits. Environmental documents include the SEPA checklist, this threshold determination, and submittal materials.

7. **Comment and Appeal Information:** This DNS is issued under WAC 197-11-340(2). The Lead Agency will not act on this proposal for 14 days from the date of issuance. You may submit comments on this proposal to the address below before 4:00 p.m. on 9/23 **, 2015.** Agencies and those providing comments will receive a copy of the final decision. Appeal information will be provided with the final decision. For information on the comment or appeal processes, or on other issues relating to this proposal. contact Byron Gumz, Senior Project Planner, at (509) 574-2300.

8. **SEPA Responsible Official:** Lynn Deitrick, AICP

9. **Designee:** Thomas Carroll
10. **Address:** 128 N. 2nd St.
4th Floor Courthouse
Yakima, WA 98901
11. **Date:** 9/9, 2015

Public Services

128 North Second Street • Fourth Floor Courthouse • Yakima, Washington 98901
(509) 574-2300 • 1-800-572-7354 • FAX (509) 574-2301 • *www.co.yakima.wa.us*

LISA H. FREUND – Director

October 22, 2020

John Martin
Associate General Counsel
DTG Enterprises, Inc.
PO Box 14203
Mill Creek, WA 98082

Re: Anderson - Recycling

John,

Thank you for bringing to our attention the misphrased portion of our code relating to solid waste recycling. The specific portion of code 19.18.440(2)(b)(ii) states:

> *19.18.440 Solid Waste Handling and Disposal Sites*
> *(2) Applicability.*
> *(b) Exemptions. The following solid waste activities shall be exempt from any permit requirements of this Section:*
> *(ii) Solid waste recycling and reclamation activities not conducted on the same site as an accessory to a solid waste disposal operation provided, that such recycling and reclamation activities shall be subject to the use regulation of this Section.*

The intent of this section is to exempt solid waste recycling or reclamation activities from having to obtain additional land use approval if located within an approved solid waste disposal operation. Additional permit requirements (i.e. building permits, Health District, Ecology, etc.) may still be required, as well as compliance with any conditions set forth in the underlying landfill permit (i.e. hours of operation, dust abatement, setbacks, etc.) that may impact the proposed recycling or reclamation activites. If you have any questions please feel free to call me at 509-574-2498.

Thank you,

Tommy Carroll
Yakima County Planning Official

Appendix D

Road and Work Area Surface Dust Field Sampling and Laboratory Testing Report, HWA

HWA GeoSciences Inc.
DBE/MWBE

December 9, 2021
HWA Project No. 2005-120 Task 2000

DTG Recycling Group
16504 9th Ave SE Suite 201
Mill Creek, WA 98012

Attention: Mr. John Martin

Subject: **FIELD SAMPLING AND LABORATORY TESTING REPORT**
ROAD AND WORK AREA SURFACE DUST SAMPLING AND TESTING
DTG/Yakima Limited Purpose Landfill
Yakima, Washington

Dear Mr. Martin.

In accordance with your request, HWA GeoSciences Inc. (HWA) performed field sampling and laboratory testing for the above referenced project. Herein we present a summary of our field activities and the results of our laboratory analyses. HWA conducted this sampling and testing program in accordance our scope based on procedures outlined in AP 42, Appendix C.1 and C.2, proposed and approved by DTG on November 18, 2021. The laboratory testing program was performed in general accordance with the guidelines in AP 42, Appendix C.2 and the appropriate ASTM Standards.

FIELD SAMPLING: Field samples were obtained at the Yakima Limited Purpose Landfill on November 30, 2021, by a geologist from HWA GeoSciences, Inc. Samples were obtained at five locations comprised of; three roadway locations (RS), and two work area surface (WAS) locations as shown on Figure A-1 in Appendix A. Each laboratory test sample consisted of a composite of 2 to 4 field samples obtained at each proposed test location. A field report describing activities during sampling at each location is presented in Appendix A along with photographs of selected site conditions during sampling. HWA conducted the field sampling under the observation of a representative of Yakima County Clean Air Agency.

SAMPLE INFORMATION: fifteen field samples were obtained to represent conditions at five locations consisting of either road surface or work area dust materials. Field samples were combined into five laboratory test samples representing surface dust material from each road surface(RS) and work area(WAS) and then split to test mass using a riffle-splitter in general accordance with ASTM D2013.

Based on manual-visual methods, the soils descriptions for the test samples are as follows:

RS-1	Brown, well-graded SAND with silt and gravel (SW-SM)
RS-2	Brown, well-graded SAND with gravel (SW)
RS-3	Light yellowish brown, well-graded SAND with silt and gravel (SW-SM)
WAS-1	Light yellowish brown, well-graded SAND with gravel (SW)
WAS-2	Brown, well-graded SAND with gravel (SW)

Testing Methodology

MOISTURE CONTENT OF SOIL: The moisture content of the sample was determined in general accordance with ASTM D 2216.The indicated moisture content of the material is percentage by dry weight of soil. The results are shown on the Sieve Analysis of Aggregate Plots, Figures 1 through 5 and Table 1 below.

SIEVE ANALYSIS OF AGGREGATE: The particle size distribution of each sample was determined by dry sieving, in general accordance with ASTM C-136 as modified in Appendix C.2 which requires sieve shaking for 10-minute intervals until the difference between two successive pan weights is less than 3%. All the samples evaluated were shaken for 4 intervals of 10 minutes (40 minutes total) which is the maximum allowed per Appendix C.2, Section C.2.3, procedural step 7. The results are reported on the attached Figures 2 to 6 and Table 1 below.

Table 1 Summary of Laboratory Testing

Sample Designation	Unified Soil Classification	Moisture Content % by dry weight	Percent Passing the US. No. 200 Sieve
RS-1	**SW-SM**	**4.4**	**5.3**
RS-2	**SW**	**3.2**	**4.5**
RS-3	**SW-SM**	**3.8**	**6.8**
WAS-1	**SW**	**5.7**	**2.4**
WAS-2	**SW**	**10.4**	**3.6**

CLOSURE: Experience has shown that test values on soil and other natural materials vary with each representative sample. As such, HWA has no knowledge as to the extent and quantity of material the tested samples may represent. HWA obtained samples in general accordance with the procedures outlined in AP 42 Appendix C.1, in an attempt to obtain samples representative of specific areas. However, HWA makes no warranty as to how representative either the samples evaluated, or the test results obtained are to field conditions outside of the specified sample areas.

No copy should be made of this report except in its entirety.

We appreciate the opportunity to provide laboratory testing services on this project. Should you have any questions or comments, or if we may be of further service, please call.

HWA GEOSCIENCES INC.

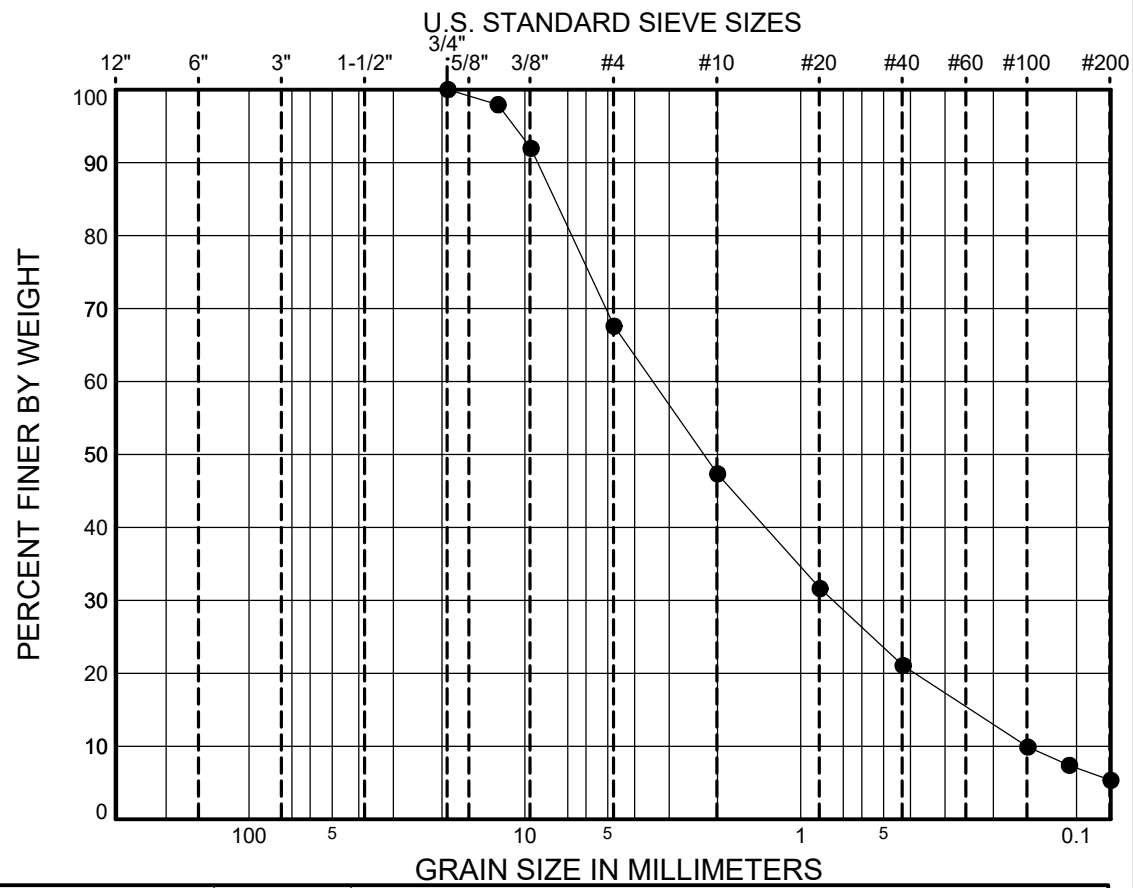
Steven E. Greene, L.G., L.E.G.
Principal Engineering Geologist

Rick Mueller, G.I.T.
Geologist

Attachments:

Figures 1 through 5	Sieve Analysis of Aggregate
Appendix A	Field Sampling Report

COBBLES	GRAVEL		SAND		
	Coarse	Fine	Coarse	Medium	Fine



Sieve Size	Percent Passing	Specification Limits
8 Inch		
7 Inch		
6 Inch		
5 Inch		
4 Inch		
3 Inch		
2 1/2 Inch		
2 Inch		
1 1/2 Inch		
1 1/4 Inch		
1 Inch		
3/4 Inch	100%	
5/8 Inch		
1/2 Inch	98%	
3/8 Inch	92%	
1/4 Inch		
No. 4	68%	
No. 8		
No. 10	47%	
No. 16		
No. 20	32%	
No. 30		
No. 40	21%	
No. 50		
No. 60		
No. 80		
No. 100	10%	
No. 200	5.3%	

SAMPLE ID	DATE SAMPLED	SAMPLED FROM
RS-1	11/30/2021	ROAD SEGMENT 1-SOUTHEAST OF WOOD WASTE AREA.

MATERIAL CLASSIFICATION / DESCRIPTION	Moisture %	Sand Equiv't	L.A. Abras'n	Degra-dation	Dust Ratio	MGS04 Sound	Plastic Index	Fracture %
(SW-SM) Brown, Well-graded SAND with silt and gravel	4.4							

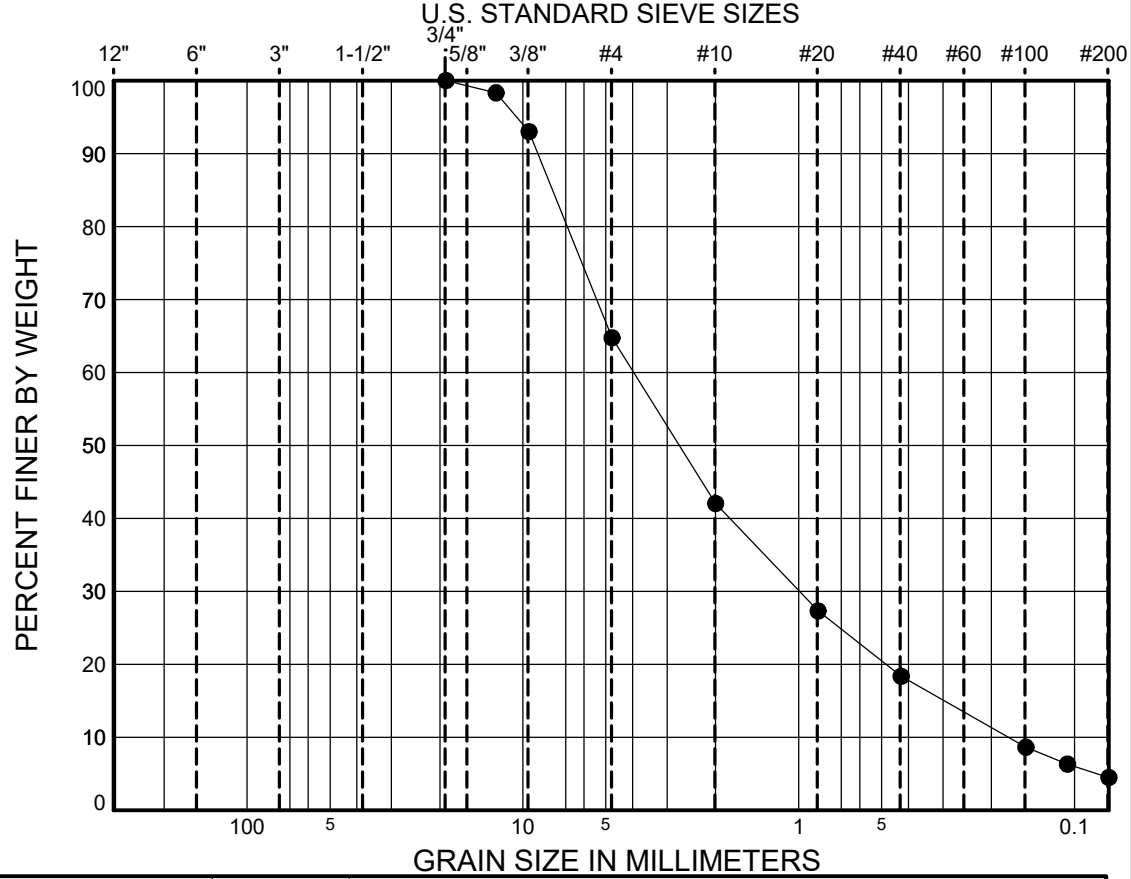
HWA GeoSciences Inc.

ROAD AND WORK AREA SURFACE DUST SAMPLING AND TESTING
DTG/YAKIMA LIMITED PURPOSE LANDFILL
YAKIMA, WASHINGTON

SIEVE ANALYSIS
OF AGGREGATE
METHOD ASTM C136

PROJECT NO.: 2005-120 T2000 FIGURE: 1

COBBLES	GRAVEL		SAND		
	Coarse	Fine	Coarse	Medium	Fine



Sieve Size	Percent Passing	Specification Limits
8 Inch		
7 Inch		
6 Inch		
5 Inch		
4 Inch		
3 Inch		
2 1/2 Inch		
2 Inch		
1 1/2 Inch		
1 1/4 Inch		
1 Inch		
3/4 Inch	100%	
5/8 Inch		
1/2 Inch	98%	
3/8 Inch	93%	
1/4 Inch		
No. 4	65%	
No. 8		
No. 10	42%	
No. 16		
No. 20	27%	
No. 30		
No. 40	18%	
No. 50		
No. 60		
No. 80		
No. 100	9%	
No. 200	4.5%	

SAMPLE ID	DATE SAMPLED	SAMPLED FROM
RS-2	11/30/2021	ROAD SEGMENT 2-EAST OF ROCK QUARRY

MATERIAL CLASSIFICATION / DESCRIPTION	Moisture %	Sand Equiv't	L.A. Abras'n	Degra-dation	Dust Ratio	MGS04 Sound	Plastic Index	Fracture %
(SW) Brown, Well-graded SAND with gravel	3.2							

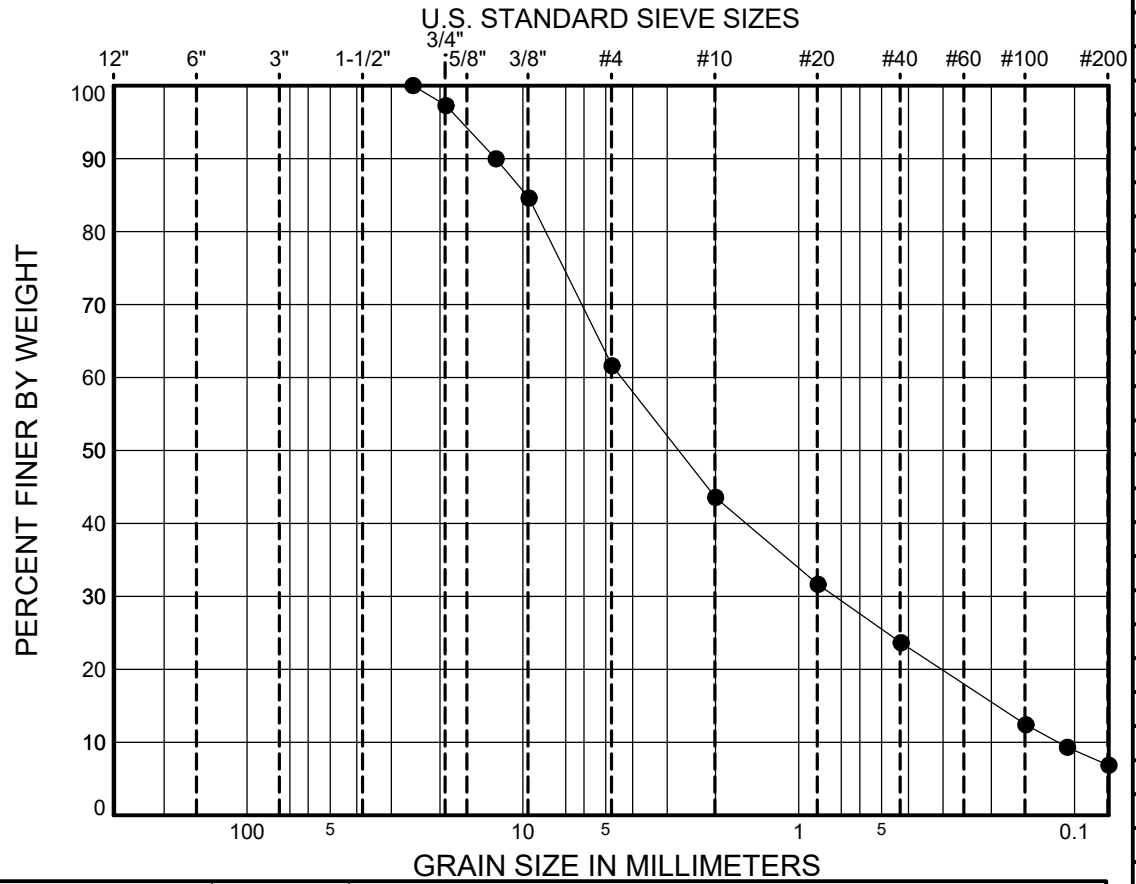
HWA GeoSciences Inc.

ROAD AND WORK AREA SURFACE DUST SAMPLING AND TESTING
DTG/YAKIMA LIMITED PURPOSE LANDFILL
YAKIMA, WASHINGTON

SIEVE ANALYSIS
OF AGGREGATE
METHOD ASTM C136

PROJECT NO.: 2005-120 T2000 FIGURE: 2

COBBLES	GRAVEL		SAND		
	Coarse	Fine	Coarse	Medium	Fine



Sieve Size	Percent Passing	Specification Limits
8 Inch		
7 Inch		
6 Inch		
5 Inch		
4 Inch		
3 Inch		
2 1/2 Inch		
2 Inch		
1 1/2 Inch		
1 1/4 Inch		
1 Inch	100%	
3/4 Inch	97%	
5/8 Inch		
1/2 Inch	90%	
3/8 Inch	85%	
1/4 Inch		
No. 4	62%	
No. 8		
No. 10	44%	
No. 16		
No. 20	32%	
No. 30		
No. 40	24%	
No. 50		
No. 60		
No. 80		
No. 100	12%	
No. 200	6.8%	

SAMPLE ID	DATE SAMPLED	SAMPLED FROM
RS-3	11/30/2021	ROAD SEGMENT 3- ENTRY INTO WORK AREA 2.

MATERIAL CLASSIFICATION / DESCRIPTION	Moisture %	Sand Equiv't	L.A. Abras'n	Degra-dation	Dust Ratio	MGS04 Sound	Plastic Index	Fracture %
(SW-SM) Light yellowish brown, Well-graded SAND with silt and gravel	3.8							

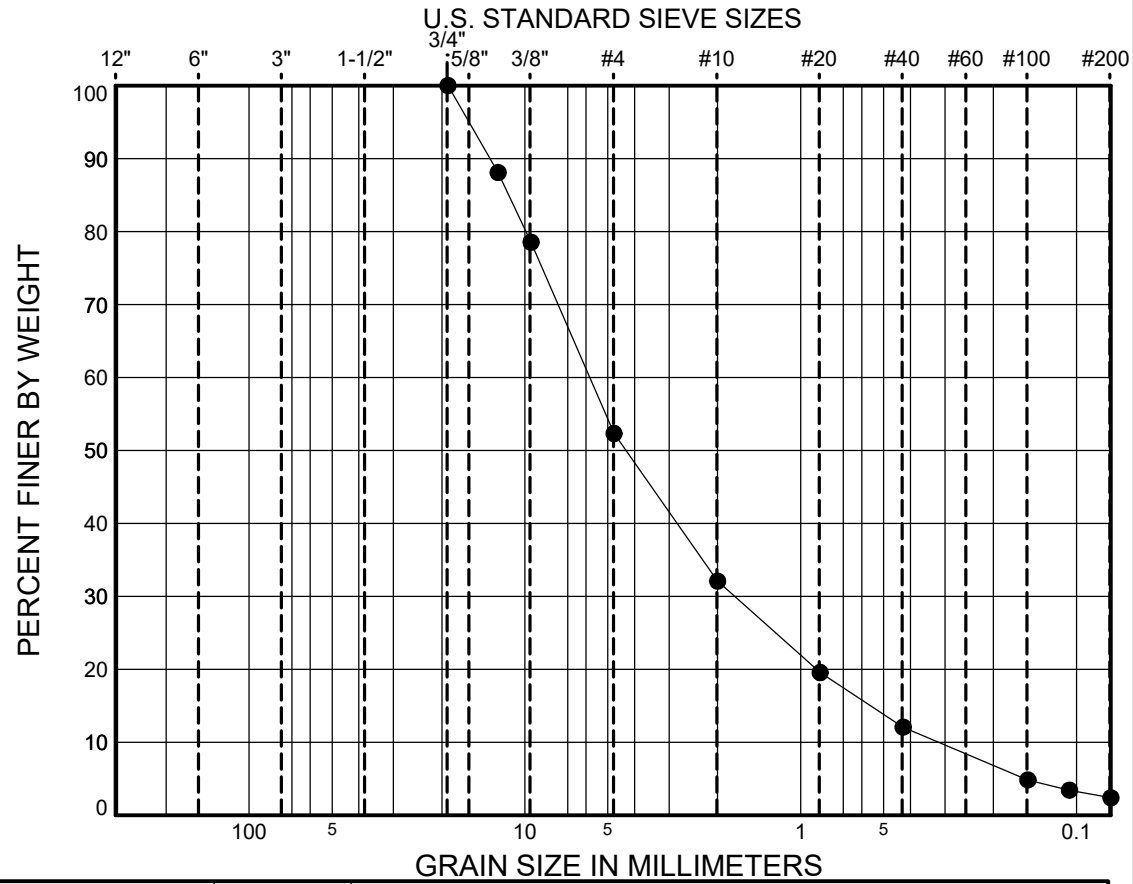
HWA GeoSciences Inc.

ROAD AND WORK AREA SURFACE DUST SAMPLING AND TESTING
DTG/YAKIMA LIMITED PURPOSE LANDFILL
YAKIMA, WASHINGTON

SIEVE ANALYSIS
OF AGGREGATE
METHOD ASTM C136

PROJECT NO.: 2005-120 T2000 FIGURE: 3

COBBLES	GRAVEL		SAND		
	Coarse	Fine	Coarse	Medium	Fine



Sieve Size	Percent Passing	Specification Limits
8 Inch		
7 Inch		
6 Inch		
5 Inch		
4 Inch		
3 Inch		
2 1/2 Inch		
2 Inch		
1 1/2 Inch		
1 1/4 Inch		
1 Inch		
3/4 Inch	100%	
5/8 Inch		
1/2 Inch	88%	
3/8 Inch	79%	
1/4 Inch		
No. 4	52%	
No. 8		
No. 10	32%	
No. 16		
No. 20	20%	
No. 30		
No. 40	12%	
No. 50		
No. 60		
No. 80		
No. 100	5%	
No. 200	2.4%	

SAMPLE ID	DATE SAMPLED	SAMPLED FROM
WAS-1	11/30/2021	WORK AREA 1-CONSTRUCTION DEMOLITION DEBRIS AREA

MATERIAL CLASSIFICATION / DESCRIPTION	Moisture %	Sand Equiv't	L.A. Abras'n	Degra-dation	Dust Ratio	MGS04 Sound	Plastic Index	Fracture %
(SW) Light yellowish brown, Well-graded SAND with gravel	5.7							

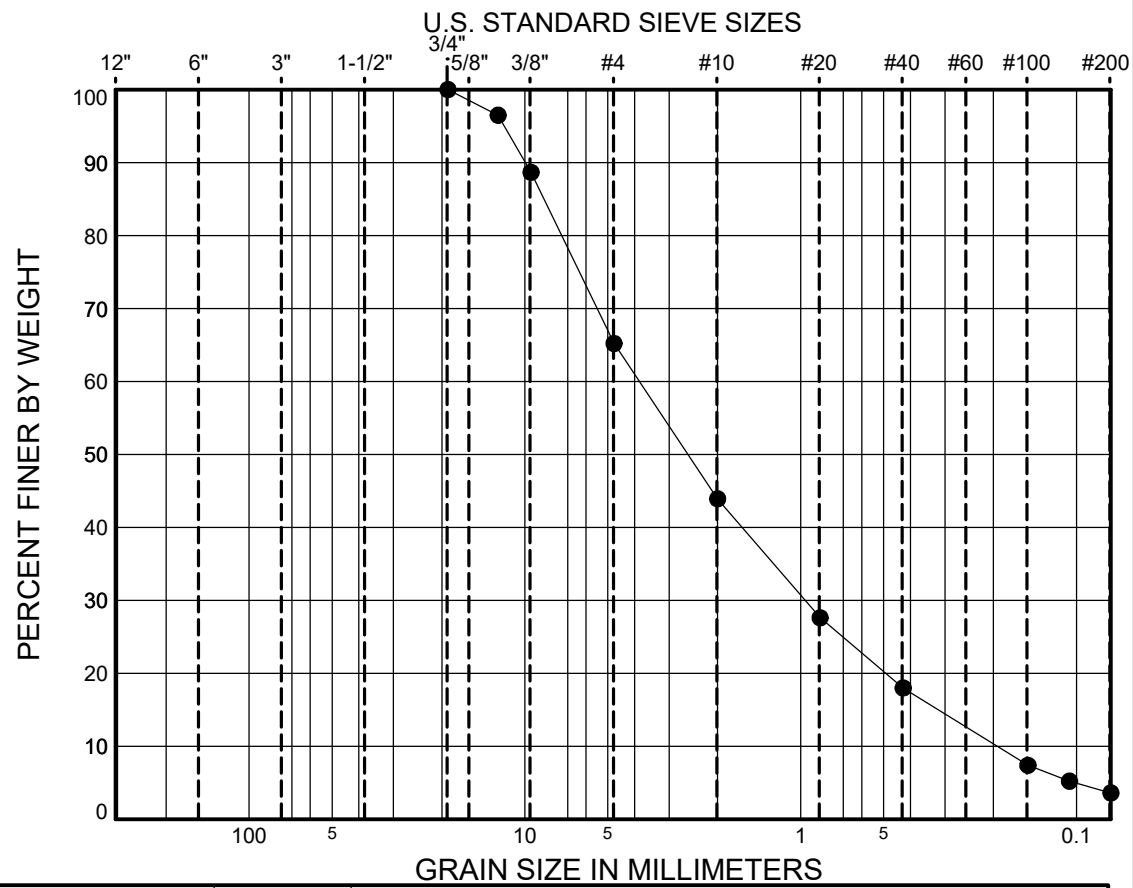
HWA GeoSciences Inc.

ROAD AND WORK AREA SURFACE DUST SAMPLING AND TESTING
DTG/YAKIMA LIMITED PURPOSE LANDFILL
YAKIMA, WASHINGTON

SIEVE ANALYSIS
OF AGGREGATE
METHOD ASTM C136

PROJECT NO.: 2005-120 T2000 FIGURE: 4

COBBLES	GRAVEL		SAND		
	Coarse	Fine	Coarse	Medium	Fine



Sieve Size	Percent Passing	Specification Limits
8 Inch		
7 Inch		
6 Inch		
5 Inch		
4 Inch		
3 Inch		
2 1/2 Inch		
2 Inch		
1 1/2 Inch		
1 1/4 Inch		
1 Inch		
3/4 Inch	100%	
5/8 Inch		
1/2 Inch	96%	
3/8 Inch	89%	
1/4 Inch		
No. 4	65%	
No. 8		
No. 10	44%	
No. 16		
No. 20	28%	
No. 30		
No. 40	18%	
No. 50		
No. 60		
No. 80		
No. 100	7%	
No. 200	3.6%	

SAMPLE ID	DATE SAMPLED	SAMPLED FROM
WAS-2	11/30/2021	WORK AREA 2-WOOD WASTE RECYCLING

MATERIAL CLASSIFICATION / DESCRIPTION	Moisture %	Sand Equiv't	L.A. Abras'n	Degra-dation	Dust Ratio	MGS04 Sound	Plastic Index	Fracture %
(SW) Brown, Well-graded SAND with gravel	10.4							

HWA GeoSciences Inc.

ROAD AND WORK AREA SURFACE DUST SAMPLING AND TESTING
DTG/YAKIMA LIMITED PURPOSE LANDFILL
YAKIMA, WASHINGTON

SIEVE ANALYSIS
OF AGGREGATE
METHOD ASTM C136

PROJECT NO.: 2005-120 T2000 FIGURE: 5

APPENDIX A

Field Sampling Report

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Upon my arrival to DTG Anderson Rock and Demolition pit, just northwest of Yakima, WA, I met with Brooks Taylor of DTG and Wade Porter of Yakima Regional Clean Air Agency. Brooks Taylor familiarized me with the operations within the pit and directed me to sampling locations proposed by HWA. Wade Porter was on site to observe HWA's sample collection methodology and assure that samples were taken in representative areas.

Work Area 1 (WAS 1.1 through 1.3)

The first location that samples were acquired was an area that DTG uses to bury miscellaneous construction demolition waste such as plastics and insulation. For the working area samples (WAS), a 15'x15' square was marked out and split into four equal quadrants of 7.5'x7.5'. From each quadrant, a 1-foot-wide area was swept from one end of the quadrant to the other. Material was collected using a broom and an enclosed dustpan. The material was transported from the dustpan and into a Ziploc storage bag. Three locations were chosen within the first working area. Samples collected were WAS 1.1, WAS 1.2 and WAS 1.3. These samples will be combined in HWA's lab prior to testing. Material collected appeared to consist of imported crushed gravel and possibly some native soils. While sampling, trucks coming in from outside of the site were dumping construction waste and a haul truck, excavator and dozer from within the site were tracking around the areas sampled.

Work Area 2 (WAS 2.1 through 2.4)

The second location was a working area where wood debris is stored. Three more 15'x15' squares were marked out and split into quadrants, with a 1-foot-wide swath swept from each quadrant. Wade Porter with YRCAA requested an additional sample be taken from an area that appeared to differ from the rest within the working area, possibly underlain with imported gravel while the majority of the working area surface was covered in wood debris and possibly native soils. Samples were collected using the same methods as WAS 1, and labelled WAS 2.1, WAS 2.2, WAS 2.3 and WAS 2.4. The samples will be combined in HWA's lab prior to testing. There was limited traffic through the working area during HWA's time on site, though it appeared trucks hauling wood debris travelled through the area to dump and haul trucks from within the DTG site travelled through the area.

Road Sample 1 (RS 1.1 through RS 1.3)

The third location sampled was a unpaved compacted soil and gravel road used to transport material between different locations on site. For roadway samples (RS) two grade stakes were measured 1-foot apart on each side of the road with a string around each stake, crossing the road to mark out a 1-foot-wide section across the entire width of the road. Samples were collected using the same methods as WAS 1 and WAS 2. Three of these areas were sampled, resulting in samples RS 1.1, RS 1.2 and RS 1.3. These samples will be combined in HWA's lab prior to testing. Haul trucks made frequent trips through the area, hauling soil and gravel to the first working area.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Road Sample 2 (RS 2.1 through 2.3)

The fourth location sampled was a compacted soil and gravel road used to transport material between different locations on site. For roadway samples (RS) two grade stakes were measured 1-foot apart on each side of the road with a string around each stake, crossing the road to mark out a 1-foot-wide section across the entire width of the road. Samples were collected using the same methods as described above. Three of these areas were sampled, resulting in field samples RS 2.1, RS 2.2 and RS 2.3. These samples will be combined in HWA's lab prior to testing. Haul trucks made frequent trips through the area, transporting soil and gravel to the first working area.

Road Sample 3 (RS 3.1 and 3.2)

The fifth and final location sampled was a compacted soil and gravel road used to transport material between different locations on site. For roadway samples (RS) two grade stakes were measured 1-foot apart on each side of the road with a string around each stake, crossing the road to mark out a 1-foot-wide section across the entire width of the road. Samples were collected using the same methods as described above. Two of these areas were sampled (RS 3.1 and RS 3.2) rather than 3, as suggested by Wade Porter, due to safety concerns in order to minimize time spent within the roadway, which supported heavy traffic. These samples will be combined in HWA's lab prior to testing. Trucks bringing construction waste in from outside of site were travelling through the area as well as haul trucks transporting dirt and gravel from within the site.

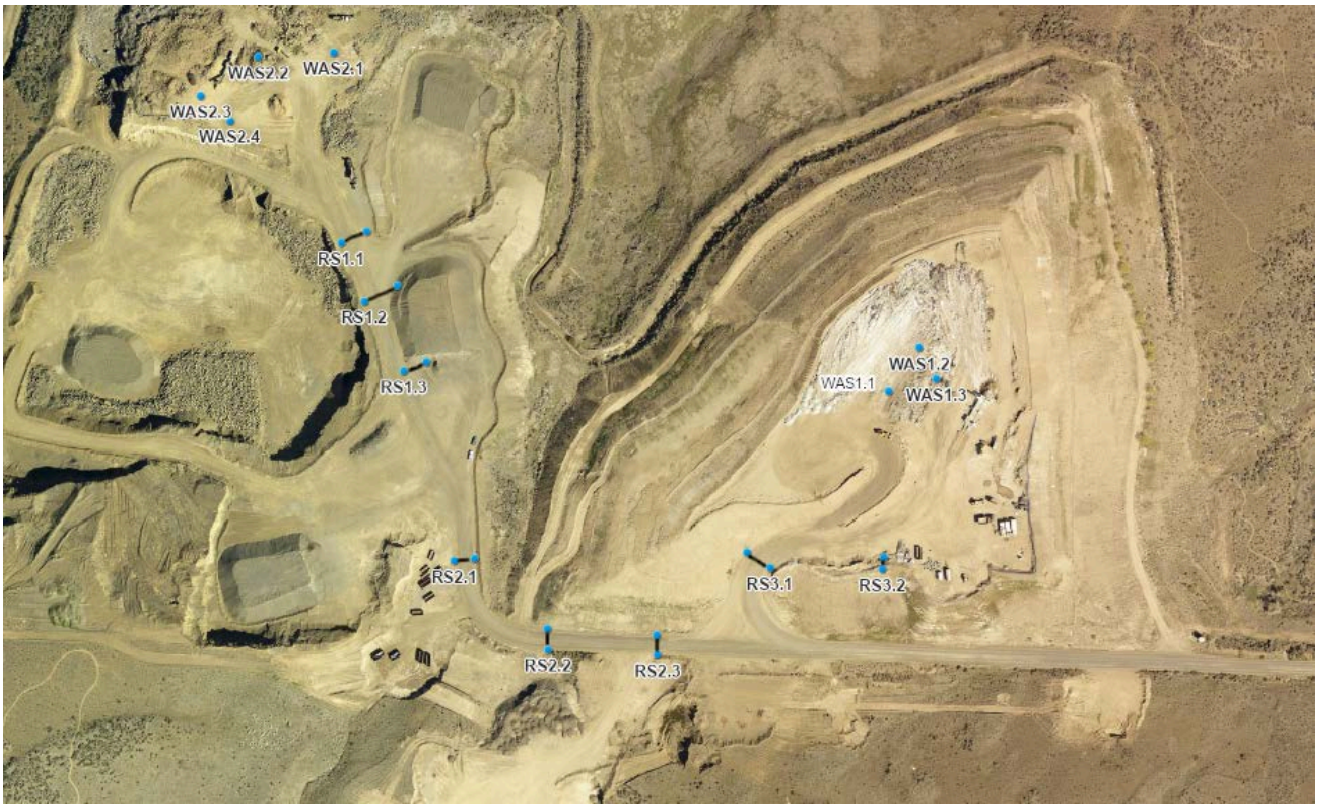


Figure A-1. Sample Location Aerial Map, sample locations recorded via GPS.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-2. Location of WAS1.1 after sampling. Each quadrant is 7.5'x7.5'. A one-foot-wide swath was swept across each quadrant. Facing Southeast.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

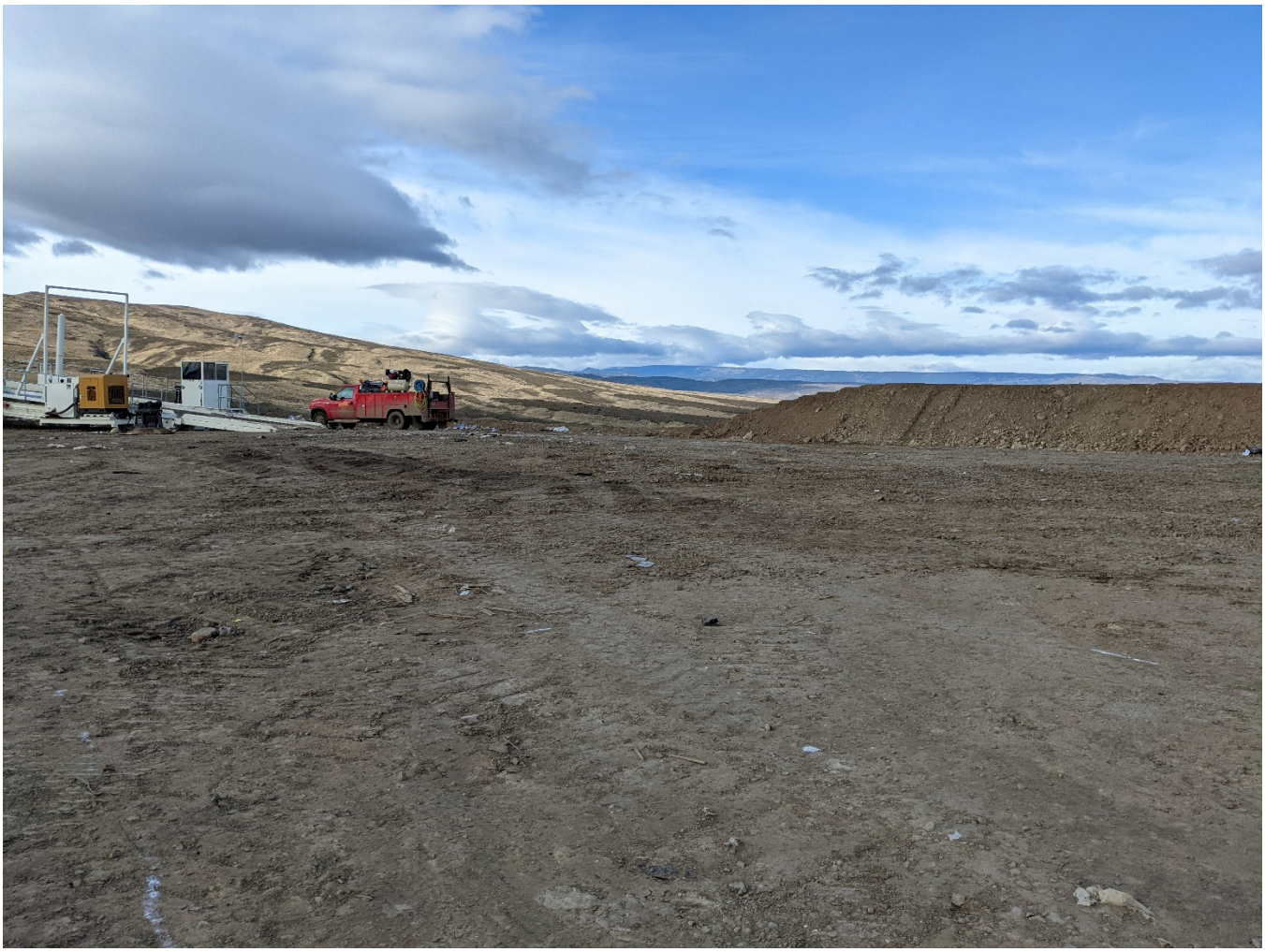


Figure A-3. WAS1.3, facing west.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-4. WAS2.1. Note woody debris on ground within sample area. Facing northwest.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-5. WAS2.2. Facing west.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-6. WAS2.3

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

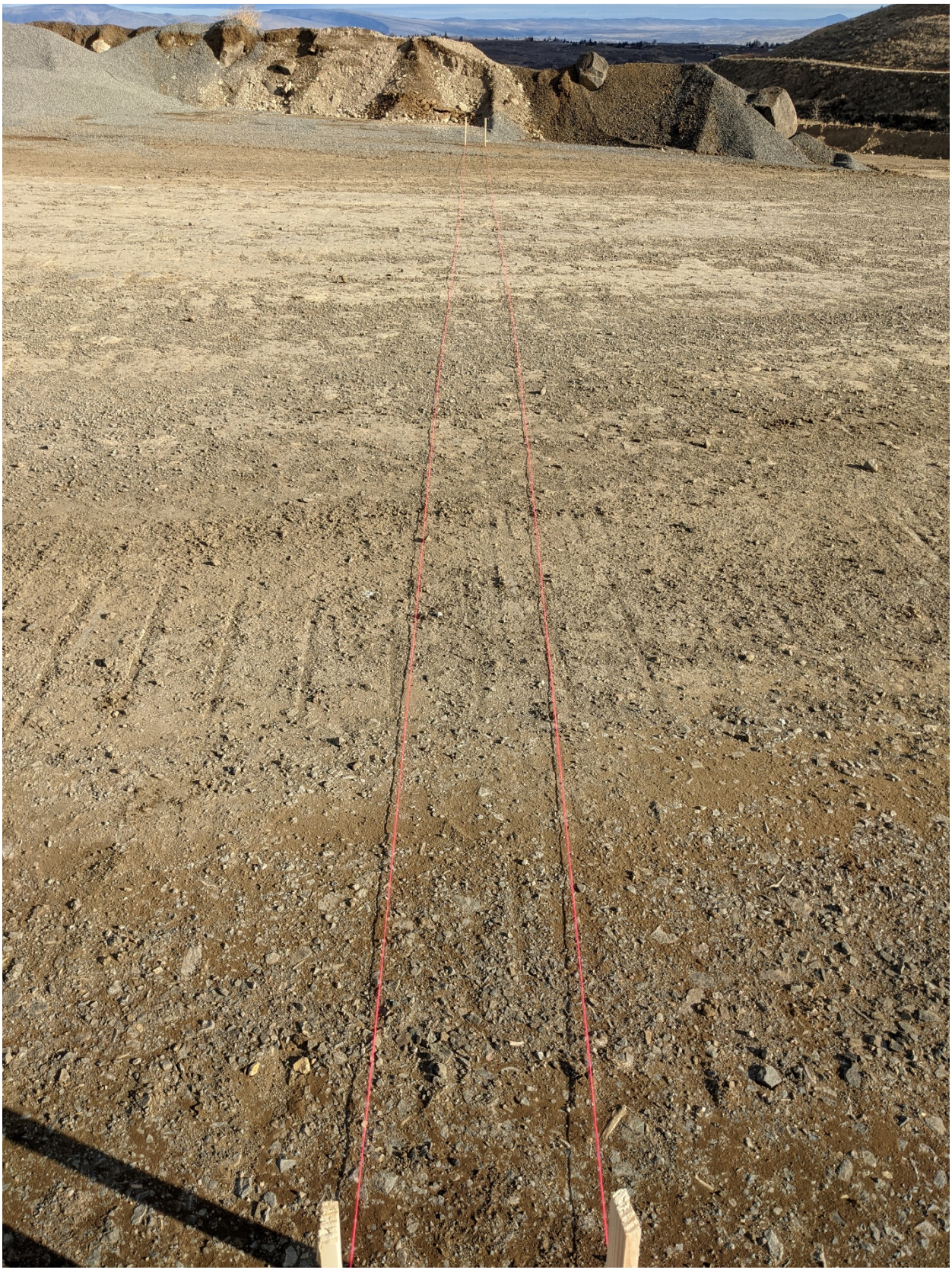


Figure A-7. RS1.1 marked out, prior to sample collection. Facing East.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-8. RS1.1 Marked out, after sample collection. Facing East.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-9. Location of RS1.2 prior to collection. Facing west.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

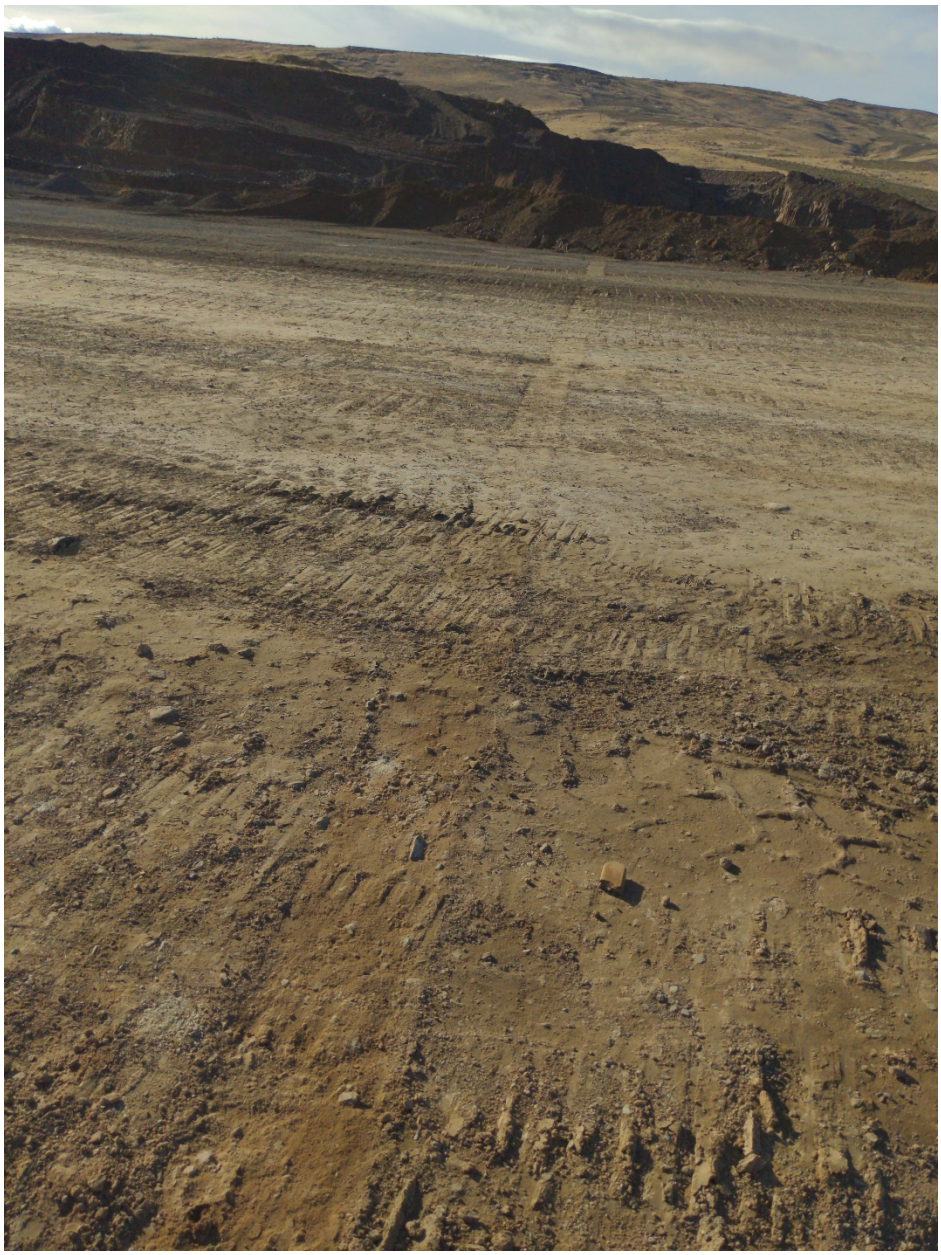


Figure A-10. Location of RS1.3 after collection. Facing west.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-11. Location of RS2.1 after collection. Facing west.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

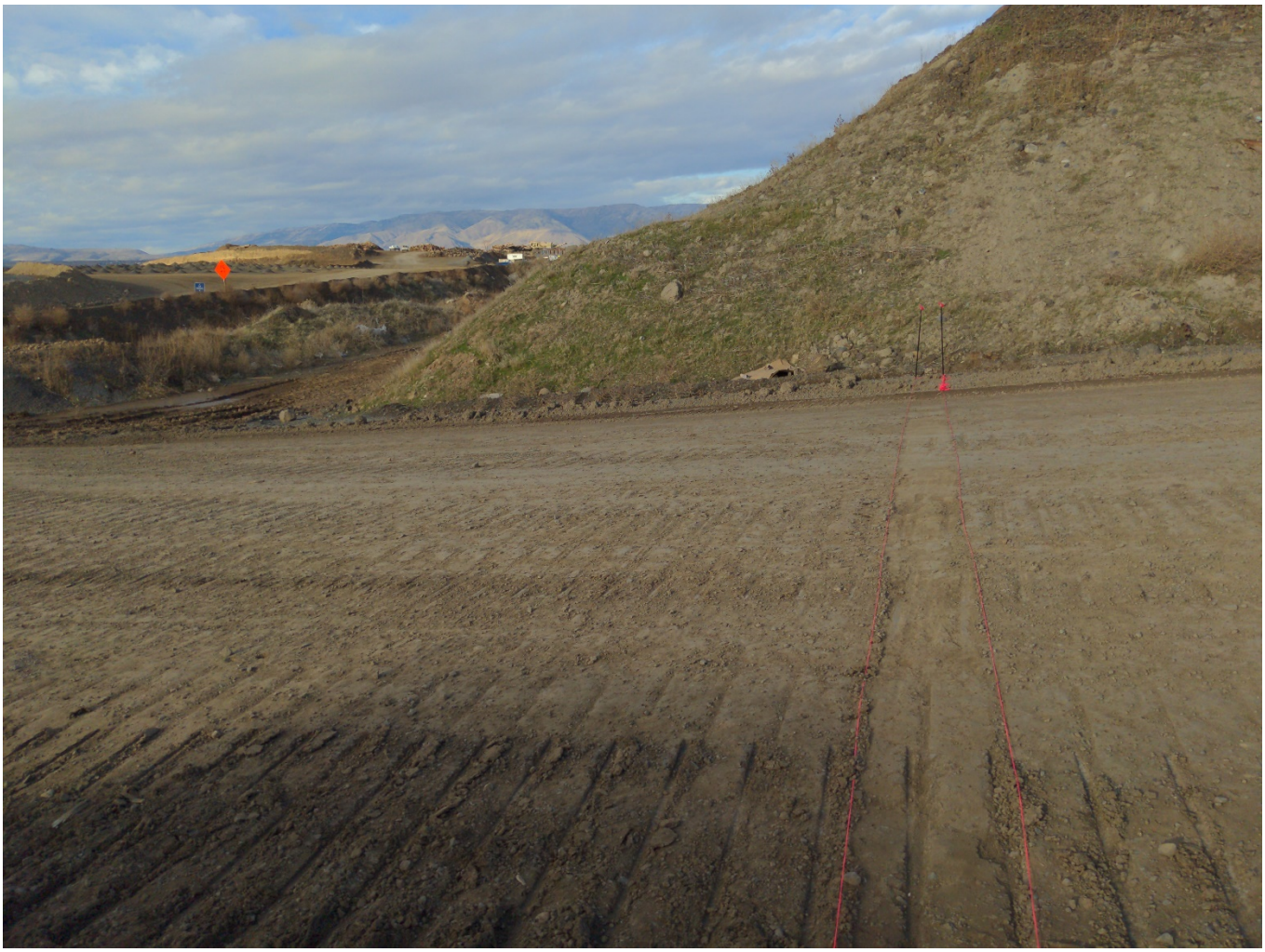


Figure A-12. Location of RS2.2 after collection. Facing north

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-13. Location of RS2.3 after collection. Facing Northeast.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-14. Photo showing collection of a road sample courtesy of Wade Porter.

DTG Anderson Road and Working Area Dust Collection
Conducted: 11-30-2021 by Rick Mueller/HWA GeoSciences, Inc.

Figure A-15. Photo showing sample storage procedure, courtesy of Wade Porter.

Appendix E

Washington State Department of Ecology Rock Crusher Fugitive Dust Control Plan

ATTACHMENT 1

Rock Crusher Fugitive Dust Control Plan (FDCP)

Ecology's Air Quality Program has developed emission control guidelines to supplement General Order No 11-AQG-00 1. Washington air quality regulations require Best Available Control Technology (BACT) to control air emissions from both fugitive and process emission points. The guidance provided below will identify emission points and provide a menu of options to control both process and fugitive particulate matter emissions for a rock crusher and associated activities.

1. FUGITIVE EMISSION POINTS

    1.1. Materials handling

        1.1.1. Front-end loader dumping into aggregate bins

        1.1.2. Surface mining and loading the primary (jaw) crusher

        1.1.3. Loading aggregate trucks with conveyor and/or front-end loader

        1.1.4. Aggregate and/or waste being added to and/or removed from stockpiles

    1.2. Wind erosion from exposed surfaces

    1.3•. Access roads and site vehicle access areas

    1.4. Paved roads (carryout, spillage)

2. PROCESS EMISSION POINTS

    Plant equipment configurations will vary, but all rock crushers will contain the following equipment.

    2.1. Conveyors: primary emission point for a conveyor is the drop distance for each transfer point.

    2.2. Crushers

    2.3. Screens

3. EMISSION CONTROL OPTIONS

    3.1. REQUIRED: Water truck to be on site at all times the crusher is in operation, unless the water truck is obtaining water or other arrangements have been made with the permitting

agency. The following factors should be considered when applying water to access roads and on-site vehicle access areas.

3.1.1. Application rate: amount of water applied per unit area

3.1.2. Frequency: time between applications

3.1.3. Vehicles per hour

3.1.4. Weather conditions

3.2. REQUIRED: Either a pressurized line water supply or water storage tank must be located on-site at all times the crusher is in operation. The water storage tank is in addition to the water truck, and the water truck cannot be used as the water storage tank, unless there are multiple water trucks onsite. Water application systems are required to be readily available on the crusher whenever it is in operation. The system shall include a pump, water lines, spray bars, or equivalent, available to be deployed on all crusher discharge points and before all fines drop points. Water application systems need to be installed at any discharge point generating visible emissions. The water application rate will be dependent on the operating capacity and type of material per hour passing through each control point, and the ability to keep visible emissions below 10 percent opacity. The following factors should be considered when applying water to process control points:

3.2.1. Application rate: amount of water applies per ton per unit time (gal/ton/time)

3.2.2. When to apply

3.2.3. Weather conditions

3.2.4. Coverage area for each spray bar or nozzle

3.3. REQUIRED: Speed limitations for site vehicles with procedures to maintain and enforce speed restrictions.

3.4. RECOMMENDED: Location, size, and configuration of stockpiles to reduce wind erosion.

3.5. AS NECESSARY: Dust suppressant

3.5.1. Type and amount of suppressant applied per unit area of roadway (gals/square foot)

3.5.2. Frequency of application (time between applications)

3.5.3. Traffic volumes (vehicles per hour)

3.5.4. Weather conditions

3.6. AS NECESSARY: Mechanical cleaning (i.e., sweeping paved surfaces)

3.6.1. Cleaning equipment or method

3.6.2. Cleaning frequency

3.7. AS NECESSARY: Vegetation reclamation

3.7.1. Type of vegetation

3.7.2. When and how planted

3.7.3. Pounds of seed or shrub/tree per acre

3.7.4. Watering system

3.8. AS NECESSARY: Wind Erosion Response Plan

The fugitive and process emission points and control options described above pertain to a rock crusher and associated activities. Ecology requires that visible particulate matter emissions be controlled to less than 10 percent opacity. No visible emissions from the crusher or any associated activities can cross the boundary of the property on which crusher is located.