



Technical Assistance Model and Risk Assessment Summary

Facility Name:	NW Metals Inc.	Source Type:	Stationary	
Source Description:	Metal Shredder and supporting activities			
Toxics Emissions Units				
Name	Description	Max. Hourly Throughput^[1]	Max. Daily Activity	Max. Annual Activity
Metal Shredder	Arjes Titan 950 Tier4	10 tons/hr	6.6 hours/day	2,265 hours/year
ASR handling	Material Handling	3 tons/hr	6.6 hours/day	2,265 hours/year
	Pile Storage	NA	24 hours/day	8,760 hours/year
Diesel Engine	Volvo Penta	.032 M gal/hr	0.21 M gal/day	72.5 M gal/year
Fluid draining	VOC emissions	10 tons/hr	6.6 hours/day	2,265 hours/year
Exposure Locations				
Location Type	Location Identifier		Distance	
Residential	Ridgecrest Timbers Apartments		736 meters	
Nonresidential Adult	It's a better deal auto and truck recycling		30 meters	
Nonresidential Child	Sitton SUN School		955 meters	
Acute	It's a better deal auto and truck recycling		30 meters	
Supporting Information				
(1)-Emission factor calculations spreadsheet. (2)-Aerial photo indicating exposure locations.				
Risk Assessment				
Level	Model Used	Meteorology		
1	Level 1 Risk Assessment Tool (ODEQ)	Assumptions used to create OAR 340-245-8050 Table 5.		
Risk Results				
Assessment	Cancer x 10⁻⁶ [2]	Chronic HI [2]	Acute HI	
Source Risk	10	0.4	1	
Uncertainty Discussion				
DEQ used the best available and most health protective emissions information at the time of the risk assessment for emissions from the shredder and ASR TEUs Also, the manufacturer was unable to confirm the ton per hour throughput of the shredder, which may over- or underestimate emissions from this TEU. The diesel emissions data for TACs, other than Diesel Particulate Matter (DPM), are based on older data that may overestimate risk from the newer engine on the shredder that meets EPA Tier 4 emissions standards.				
Permit Conditions – Source Risk Limits				
The results of this risk assessment indicate that all risks at the nearest exposure locations are below the Toxics Lowest Achievable Emission Rate (TLAER) levels in OAR 340-245-8010 Table 1, when operated to the following maximum annual and daily hours: 2,325 hours/year and 8.5 hours/day. This means that no emission reductions are required at these operational levels.				

Conditions will be placed in the Air Contaminant Discharge Permit (ACDP) for this facility to ensure that risk does not increase above the levels modeled in this risk assessment, and will be based on hours of operation and diesel fuel usage as modeled in this risk assessment. NW Metals will also perform an analysis to determine the actual hourly capacity of the shredder and any changes from the rates used in this risk assessment may require re-evaluation of risk.

^[1] Based on company estimate, with ASR estimated at 30% of shredded material.

^[2] Based on nonresidential, adult exposure – i.e., Workers at nearby businesses.