

Schnitzer Steel Facility - #A0208



The Schnitzer Steel facility is a scrap metal recycling and metal shredding operation in West Oakland occupying approximately 26.5 acres adjacent to the Oakland Inner Harbor waterfront and the Port of Oakland. The facility is bounded to the south by the Oakland Inner Harbor, to the east and west by the Port of Oakland, and to the north by Embarcadero West and Union Pacific Railroad tracks.

Bulk scrap is delivered to the facility by both rail and truck. The processed ferrous scrap is stockpiled at the facility until loaded at the facility's docks into cargo ships. Treated shredder residue is transported by truck for use as alternative daily landfill cover. Scrap and non-bulk ferrous/non-ferrous metal scrap are weighed, sorted and segregated by hand, and either baled at the non-ferrous building or placed in cargo containers for transport by truck.

In response to water quality regulations, Schnitzer Steel enclosed the auto shredding operations and installed a high-efficiency capture system to collect particulate matter. Schnitzer Steel also enclosed the

Joint Products Plant where light fibrous material from the shredder is processed and added other particulate matter abatement devices. In addition to these improvements, Schnitzer Steel paved large areas of the site to further reduce particulate matter. These particulate matter controls were included in the facility's *Emission Minimization Plan* approved in 2014 under [Regulation 6, Rule 4 – Metal Recycling and Shredding Operations](#).

Source tests after the completion of the shredder enclosure showed a potential for volatile organic compounds (VOC) emissions to be over 100 tons per year. Based on these test results, the Air District issued a violation notice under Regulation 8-2-301 and determined that the facility would need to meet Title V permit requirements. In response to the violation notice, Schnitzer Steel is proposing to install two thermal oxidizers and two acid gas scrubbers to control organic emissions from the shredding operation. The additional controls will also result in significant reductions in organic toxic air contaminant (TAC) emissions and related health risks.

Schnitzer Steel and the West Oakland Community Action Plan

Emissions from operations at Schnitzer Steel in 2017 were included in the emission inventory and risk modeling for the West Oakland Community Action Plan. In estimating the 2017 emissions, Air District staff relied on results from source testing at the facility and included the benefits from the installation of abatement equipment during 2017.

The modeling for the West Oakland Community Action Plan also estimated excess cancer risk levels for subareas or Zones within West Oakland. Two of the zones are located near Schnitzer Steel – Zone 3 (3rd Street) and Zone 2 (7th Street). The contribution of emissions in 2017 from Schnitzer Steel to estimated excess cancer risks in both zones is approximately 10-11 per million. The technical assessment also forecasted

that implementation of additional controls at Schnitzer Steel in response to new regulatory requirements would reduce emissions of cancer risk-weighted toxic air contaminants by 61%, but staff's draft assessments of the recent permit applications suggest that the new controls will achieve greater reductions.

Source Category	PM2.5	Diesel PM	Cancer Risk Weighted Toxic Air Contaminants	Population Weighted Risk per million – West Oakland
Permitted Sources	5.2 (6.1%)	0	823 (4.3%)	5 (2%)
Trucks	0.04 (<0.1%)	0.01 (<0.1%)	8 (<0.01%)	<1 (<1%)
Ships	0.3 (0.04%)	0.3 (1.3%)	225 (1.2%)	2 (1%)

Site Visits, Inspections and Enforcement Actions

The last air quality complaint concerning Schnitzer Steel was received by the Air District in June 2018; no complaints were received in 2019 nor the first three months of 2020. A fire occurred at the facility on June 2, 2018, resulting in the issuance of three violation notices.

The Air District issued two violation notices in 2019. In response to these violations, Schnitzer Steel submitted applications install additional controls to reduce the organic emissions. These permit applications are currently under review.

Air District staff visited Schnitzer Steel on February 21, 2019 to observe the new enclosure and ventilation systems for the auto shredder process and the two new venturi scrubbers that were installed to improve particulate emissions control for this process. Engineering staff also received an update on the enclosing and abating of emissions from the Joint Products Plant.

On July 23, 2019, the Air District and inspectors with the U. S. Environmental Protection Agency, Region 9 (EPA), conducted a joint inspection focusing on EPA staff's concerns with potential volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions from the metal shredding operations.

The facility was last inspected on March 9, 2020. No new violations documented from inspection. Air District staff are in the process of reviewing Schnitzer's *Emissions Minimization Plan* to ensure inclusion of all planned facility improvement projects.

Permit Applications

The following permit applications for the facility cover new abatement conditions or changes in operation by Schnitzer Steel in response to recent violations or new regulations adopted by the Air District. Once review is complete and all abatement systems are in place, Air District expects there to be a large decrease in health risks due to large reductions in VOC and organic TACs, with the potential for small increases of oxides of nitrogen and diesel PM.

Application 27762: Authority to Construct issued November 10, 2016 for an enclosure and two scrubbers to control particulate matter from the metal shredding operation.

Application 29573: Federal Title V ([Major Facility Review](#)) Permit Application received in October 22, 2018 and is currently under review.

Application 30009: Received July 3, 2019. Schnitzer Steel is proposing to install two thermal oxidizers and two acid gas scrubbers. Preliminary review suggests a 90% reduction in VOC and TAC emissions; a greater reduction than forecast in the technical analysis for the West Oakland Community Action Plan. A health risk assessment for this application is currently being reviewed.

Application 30010: Received July 3, 2019. This Synthetic Minor Permit application will remain incomplete until source testing demonstrates that the site emissions no longer trigger Title V at the maximum permitted operating rates.

Application 29870: Issued a Certificate of Exemption on January 14, 2020 for enclosure of the Joint Products Plant (shredded material handling).

Application 30401: Received March 4, 2020. Schnitzer Steel is proposing to install a diesel-fired emergency standby generator. Air District is reviewing this application for completeness.

Application 29411: Received July 18, 2018. Schnitzer Steel is proposing to increase the allowable number of ships from 26 calls per calendar year to 32 calls per calendar year. This application triggers a California Environmental Quality Act (CEQA) review, and the Air District is the Lead Agency. The CEQA analysis is expected to begin in May 2020.