Guidelines for Abrasive Blasting

Abrasive blasting can impact air quality. The particulate matter (dust) generated from blasting operations is subject to air quality requirements described below. These requirements are enforced in Spokane County by Spokane Regional Clean Air Agency.

Controlling Particulate Matter

Abrasive blasting must be performed inside a booth or hangar designed to capture the blast grit or overspray whenever possible. Outdoor blasting of structures or items too large to reasonably be handled indoors must use control measures such as curtailment during windy periods and enclosure of the area being blasted with tarps. In addition, the residual blasting media must be cleaned from the site to avoid windblown emissions from this residue.

Outdoor blasting must be performed with either steel shot or an abrasive containing less than one percent (by mass) which would pass through a United States Standard Number 200 sieve. For a system which recycles or reuses an abrasive, the sample tested shall include all material returning to the nozzle.

All abrasive blasting with silica must be performed inside an approved blasting booth or cabinet which has emissions control equipment. This equipment typically requires an air quality permit called a Notice of Construction.

Silica is a toxic air pollutant (WAC 173-460) and uncontrolled outdoor blasting using silica is not permitted. Spokane Clean Air prohibits the use of silica blast media in outdoor blasting operations because of the difficulty in controlling emissions to a de minimus of 0.0197 lbs/24-hr.

Notice of Construction (NOC)

There are two types of abrasive blasting operations; 1) Stationary and 2) Portable and temporary.

All stationary (permanent) abrasive blasting operations must obtain an approved Notice of Construction (NOC) prior to the construction or installation of the blasting equipment.

According to state regulations, all new and modified air pollution sources must use Best Available Control Technology (BACT). For an abrasive blasting operation, this typically involves the use of a dust collector to control emissions (often a cartridge filter, or a baghouse for large operations).

If the abrasive blasting operation is temporary and portable, a NOC may not be required. Please call and speak to an engineer prior to starting the portable and temporary blasting project to ensure you meet air quality requirements.

Annual Registration & Fees

Operations with NOCs must also register with Spokane Clean Air and are subject to registration fees and compliance inspections. Once the NOC is approved, there is an annual registration fee, based on source type and emissions. The annual registration program enables Spokane Clean Air to maintain an inventory of air contaminants and is used to evaluate air pollution control strategies.

On-site Inspections

Regular inspections of registered sources are conducted to verify compliance with air pollution regulations.

Waste Handling Procedures

Abrasive blast wastes may be designated as hazardous waste. These wastes should be tested following the Toxicity Characteristic Leaching Procedure. For more information on proper waste handling, contact the Department of Ecology’s Eastern Regional Office at 329-3400.