



## Crack Sealing & Saw-Cutting

### Background

Cleaning cracks in roads, driveways and parking lots in preparation for crack sealing activities can impact the air quality in the neighborhood where repairs are being made.



*Improper dust control using compressed air to clean cracks prior to sealing.*

Improper cleaning techniques create clouds of dust (fine particles) that are harmful when inhaled and considered a nuisance.

Saw-cutting asphalt and cement surfaces can also impact air quality. This information sheet highlights some best management practices that reduce dust emissions, resulting in cleaner air for all to breathe.

### Compliance & Enforcement

Spokane Clean Air inspectors respond to many citizen complaints about excessive dust emissions. Inspectors also conduct surveillance throughout the county and perform on-the-spot inspections if excessive emissions are observed. Documented violations may result in formal enforcement action, including civil penalties.

**It is your responsibility to be aware of clean air regulations before you begin activities that may generate dust or excessive emissions. Not knowing about or understanding dust control requirements is not a defense.**

The best way to avoid costly violations is to implement adequate dust control measures and regularly monitor your operations. Make sure employees and contractors know the requirements for dust control.

### Reduce Dust, Clean the Work Surface

To help reduce dust emissions, clean-up debris on concrete and asphalt surfaces prior to the actual detailed cleaning of the cracks or saw-cutting. Possible tools include:

- ✓ Rakes
- ✓ Pressure washer
- ✓ Sweeper trucks
- ✓ Brooms
- ✓ Water trucks
- ✓ Vacuum-type equipment with dust collection device attachments.

### Detailed Crack Cleaning

There are a variety of methods available for a more detailed cleaning of cracks prior to sealing, including:

- ✓ Power washing debris out of cracks.
- ✓ Wire brushing, brooming or power-sweeping to remove the debris inside the crack. This can be done manually or with power driven brushes.
- ✓ Vacuum-type equipment can be used as a stand alone crack cleaner or in conjunction with the manual brooming or power-sweeping.
- ✓ Wide cracks (i.e., greater than 1 inch width) filled with debris can be initially cleaned with a rotary grazer, prior to being cleaned with a broom, vacuum or compressed air devices.

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- ✓ When using compressed air to clean cracks, pressure should be regularly adjusted to deliver enough air to lift the debris out of the cracks without unnecessarily creating airborne dust or propelling larger debris onto or over the property of others.
- ✓ Dust and debris should be directed toward the center of the roadway (i.e., away from roadside properties and businesses) and cleaned up (swept, vacuumed, or flushed) before traffic has an opportunity to drive over the dust and debris and kick it up into the air.
- ✓ If it is necessary to burn weeds from cracks, a hot compressed air lance should be used. Controlled combustion should be achieved through a combination of gaseous fuel (e.g. propane) in conjunction with compressed air, to achieve a temperature in the range of 600° F to 2,500° F. This should immediately combust the debris with minimal or no visible smoke and no residual smoldering. If combustion is achieved in this manner, Spokane Clean Air will not consider the combustion to be outdoor burning. Conventional propane burners can not be used to combust weeds and other vegetative debris. Use of propane burners is considered outdoor burning and is prohibited. *(A hot compressed air lance may only be used to clean cracks in conjunction with crack sealing. Burning weeds cannot be used for general maintenance.)*

## Saw-Cutting

There are several best practices available when cutting into asphalt or concrete surfaces. These options reduce air pollution emissions and protect employee health. Asphalt and concrete dust contains silica. Continuous overexposure to silica can scar lung tissue, and can lead to silicosis.

- ✓ Wet-saw cutting is a specially designed saw that uses water during the cutting action to wet down dust that is generated from the cutting the surface.
- ✓ Dry saw cutting on a wet surface. Continuously wet the surface down while dry saw cutting to help control dust emissions.

## Other Pollution Concerns

Often there may be other sources of air pollution with road work activities which are regulated by Spokane Clean Air.

- ✓ Equipment from a job site tracking mud and dirt onto paved roadways;
- ✓ Large equipment generating dust from the moving and dumping of soil; and
- ✓ Large diesel-powered equipment left idling for extended periods of time, creating harmful emissions.

## What are the rules for controlling dust emissions?

Specifically, Spokane Clean Air regulations state:

- ✓ Reasonable measures must be taken to prevent particulate matter from becoming airborne.
- ✓ Particulate matter emissions must be minimized.
- ✓ Depositing particulate matter onto the property of others is prohibited.
- ✓ Precautions must be taken to remove dirt and mud from equipment and vehicles before movement onto paved public roads.
- ✓ Dirt and mud tracked onto paved public roadways must be promptly removed.
- ✓ Dust emissions must not create a nuisance.

## Questions?

For more information, contact Spokane Clean Air, (509) 477-4727 or visit [www.SpokaneCleanAir.org](http://www.SpokaneCleanAir.org).



Sept. 2013