

Pollution Prevention Opportunities for Stone Cutting Operations

This checklist is a guide for owners and operators who perform stone cutting operations to assist in establishing waste reduction opportunities. Dust and stormwater runoff are primary pollutants of concern. Stone-cutting operations use substantial amounts of water to suppress dust and cool equipment.

Some of the pollution prevention opportunities presented in this checklist may not be practical for all facilities. The same waste reduction idea that works for one plant may not necessarily work for all. Owners and operators are encouraged to evaluate waste reduction opportunities based upon their facility's individual operations and the impacts each option affects associated air, land and water pollutants.

Additional opportunities may exist beyond those identified in this checklist.

Employee Education

- 1) Are employees trained to:
 - a) recognize and minimize environmental hazards? yes ___ no ___
 - b) handle/transfer/cut raw materials (sand, sand, aggregate, cement, water) in a manner to reduce particulate emissions and wastewater runoff? yes ___ no ___
 - c) clean equipment/vehicle in a manner to reduce airborne particles/wastewater runoff? yes ___ no ___
 - d) clean vehicles before transporting materials off-site? yes ___ no ___
 - e) use dry clean-up whenever possible? yes ___ no ___
 - f) reuse/recycle/dispose of leftover stone properly? yes ___ no ___
- 2) Have you clearly outlined and explained to your staff and employees what pollution prevention and waste minimization are and encouraged their input in identifying site pollution prevention activities? yes ___ no ___
- 3) Do you provide incentives or awards for those who practice proper or new pollution prevention techniques? yes ___ no ___
- 4) Do you hold regular employee meetings to discuss changes or on-going equipment practices and procedures? yes ___ no ___

Improved Housekeeping

- Cover outdoor dumpsters, tallow bins, etc. to prevent dust escaping and rain intrusion/leakage.
- Place only solid, non-hazardous wastes in the dumpster.
- Avoid overfilling your dumpsters.
- Avoid piling wastes up around dumpsters.
- Secure your dumpster so that you know the wastes inside.
- Store materials indoors. Outdoor storage should require leak-proof containers with lids, or storage in a covered/bermed location.
- Store chemicals and hazardous materials in sound containers
- Manage wastes in accordance with hazardous waste laws.
- Prevent dust and the escape of dust.
- Cleanup shop floors by dry sweeping.
- Cleanup spills immediately and prohibit rinsing spills down the street, storm drains, or onto ground.
- Sweep indoor and outdoors areas as often as necessary to prevent sediment or other wastes that are generated from being tracked outdoors or offsite.
- Use dry clean-up methods whenever practical (sweeping, dust collection vacuum, wiping, etc.).
- Instruct staff to never dump any materials in open areas.

General Site Operations/Maintenance

- Locate/operate equipment at least 25 feet from any property line.
- Maintain all equipment, including dust/particulate collection equipment, according to manufacturer's recommendations to prevent leaks.
- Identify a buffer zone surrounding your operations in which you plan to contain primary dust generating activities.
- Use dust-preventative barriers or vegetative buffers along roads and other traffic/work areas within your specified buffer zone.
- Use modern machinery to minimize dust generation.
- Wet stone before cutting.
- Keep a routine maintenance log on-site of all equipment/filter systems, recording date and time of all corrective actions.
- Provide integrated quality, safety and environmental management systems for the site and operation of the equipment.
- Contain pressure washing discharges.
- Pave exit points or stabilize with 1" or larger rock to reduce sediment track-out.
- Where it is not practical to pave a site, vegetative barriers may be helpful.

Fugitive Dust

- Consider prevailing wind directions in the design, location and set-up of cutting operations.
- If water sprays or dust suppression agents must be used to reduce dust, use application equipment and techniques that minimize water and material usage.
- A water spray system for dust prevention should only be used as a final measure if you are unable to effectively prevent dust during operations using the opportunities identified in this checklist. Water sprays create a stormwater issue. Dry method cleanup and wind barrier equipment should be your first choice.

Waste Concrete

- Crush blocks and bricks that do not meet standards to use for groundcover, walkways, tracks, landfill cover, and the remanufacture of other types of block walls, dividers, or curbs.
- Recycle dust into concrete batches.

Stormwater

- Wherever feasible, divert clean stormwater (e.g. roof run-off) away from contaminated areas and into an approved stormwater discharge system.
- Use berms or curbs to capture contaminated stormwater and process wastewater.
- Use site grading and porous paving to improve storm water handling from the general plant site.
- Protect storm drain inlets from waste concrete/dust runoff.
- Use and maintain on-site storm drain protection such as approved storm drain filter inserts.
- Develop a routine yard and equipment maintenance program to considerably reduce the potential for discharge of sediment to your wastewater collection and recycling system.
- Install sediment traps within the boundaries of the site.
- Regularly inspect and provide maintenance of the sediment traps to avoid discharges of contaminated water from the site.
- Reuse/Recycle your waste cutting water on-site.

Contact Pinellas County's Pollution Prevention and Resource Recovery (P2R2) Program at (727) 464-4761 for waste reduction assistance.

