Best Practices for Dust Reduction During Rotomilling Operations

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A **best practice** is a technique, method, process, or activity which conventional wisdom regards as more effective at delivering a particular outcome than any other technique, method, process, etc. when applied to a particular condition or circumstance. The idea is that with proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications.

Best practices can also be defined as the most efficient (least amount of effort) and effective (best results) way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people.

The term “best-practice” is sometimes used to describe the process of developing and following a standard way of doing things that multiple organizations can use for management, policy, and especially software systems.

This document was prepared by AEM member firm representatives participating in the Compaction & Paving Machinery Technical Committee (CPMTC).

### Project Preparation

- Adequate number of trained personnel
- Transport (Water Truck) adequate to supply hourly consumption requirements per machine.
- Water Source, Permits, Proper pumps, Fittings and Hoses
- Street/Highway Load Limits
- Traffic Control
- Work Area adequate to safely maneuver Transport Vehicle in Work Zone.
- Consider Environmental conditions, such as Freezing Temperatures, (possibly locate source for heated water). One other item to consider would be working on Night Projects or hours of darkness.
- Have preparations been made to Perform Maintenance, Inspections and Safely Transfer Water?
Operator Training:

- Demonstrate through understanding of dust suppression systems including:
  - Operation
  - Maintenance
  - Trouble shooting
  - For Water Systems:
    - Water application locations within the machine
    - Flow rates
    - Spray patterns
    - Anticipated water usage per unit time or per unit square yard.

Pre-Operation Inspection:

- Ensure that the Mill has Adequate Water Supply to begin Operations.
- Check Pump Pressure to ensure that it is set to Manufacturer Recommended Specification.
- Check Proper Flow to Individual Spray Bar Locations.
- Check Flow to Individual Spray Bars and verify that all Nozzles are Functioning Properly and Spray Pattern is Correct for the Designated Location.
- Inspection and Replace Cutting Tools (Bits/Teeth) and Replace as Needed.
- Visual Inspection of Seals, Flashing and Enclosures, to ensure minimal dust leakage.
- In-line Water Filter regular Scheduled Maintenance and Cleaning Schedule per Manufacturers Recommendations.

Operation:

- Monitor Water Usage. Do an occasional hand calculation to ensure appropriate application rate per Manufacturers Recommendation.
- Monitor Conveyor Belt Speeds.