REAL TIME moisture content of aggregate for asphalt plants.
Outline

• Current Issues
• Explanation of MMS and
• What it measures
• MMS locations
• Benefits
• User’s experience and results
Current Issues

- Fluctuations in moisture unknown throughout the day
- QC tech does not always get moistures (correctly)
- Available sensors break and wear easily
- QA disputes are hard to show data for
- Loader operator errors
- Rain delays
Moisture Measurement System - MMS

- Uses proven nuclear moisture and density measurement technology

- Measures any virgin aggregate with minimum 2” thickness

- Consistent, real-time numbers displayed in the control room

- Integration into control system for full automation with almost all systems on the market
MMS and what it measures

- It measures the moisture in an aggregate mix moving on the virgin aggregate conveyor belt.

- There is no physical contact to the aggregate mix or belt.

- Unlike microwave probes that require contact with the material in the bin or in the stream of aggregate on the belt, the MMS is situated above the belt with the sources below the belt.

- Measurements are made every second but the user can choose different time settings.
MMS – Moisture Measurement System

• The geometry of the system is designed to scan a large volume on the belt

• A plant specific calibration provides accurate moisture content with a less than ±0.5% (by weight) precision for a 5.0 second measurement.
Current MMS Locations

- New Jersey
- North Carolina
- Pennsylvania
- Utah
- Wisconsin
- Texas
Knowing the moisture of aggregates in asphalt is very important because it leads to:

- Improve product quality – pavement performance more like mix design
- Better control of binder – less variability due to water weight
- More efficient heating (burner control) leading to reduction in fuel used and greenhouse gases emitted
- Fewer stockpile measurements- QC techs can focus on lab work
- On rainy days - shorter down time and better moisture control
MMS
Moisture Measurement System

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