SAVING ENERGY THROUGH PLANT EFFICIENCY

Respectively Submitted
Bill Garrett
Partner
Meeker Equipment, Inc.
5602 SR 655
Belleville, PA 17004
Office 717 667 6000
Mobile 267 446 3796
Bill@meekerequipment.com
OUR GROWING INDUSTRY
Good Old Days

• Cheap Energy
• Less Regulation
• Lower Production
• Easier Binders
• Working Workers
• Fewer Mix Designs
• More Roads to Build
Aggregate Crushing

- Wear Changes Shape & Particle sizes
Aggregate Crushing & Stock Piling

• Wear changes particle shape & size
• Size & shape of piles, Segregation
• Pile dividers
• Loader & Material handling
Aggregate Crushing & Stock Piling

- Size & Shape of Piles
- Segregation
Aggregate Crushing & Stock Piling

- Stock Pile Dividers
Aggregate Crushing & Stock Piling

- Loader & Material Handling
Stock Piling at Asphalt Plant

- Pile Configuration
- Dozer Usage
- Testing
Stock Piling at Asphalt Plant

- Covered Piles
- Size of Piles
Stock Piling at Asphalt Plant

- Silos
- Dividers
- Covered
- Size of Piles
- Configuration
- Dozer usage
- Testing!!
Loader Operator

- Where to pick from on the pile
- Pile Maintained
- Drained properly
Transportation

- Truck
- Loaders
- Off Road Trucks
- Trains
Trains
Transportation

- Trains
- Off Road Trucks
COLD FEED SYSTEM

- Moisture Censors
- Covered Bins
- Moisture:
  - Drain it out
  - Keep it out
  - Evaporate it out
- Calibration
- Non Stick Liners
COLD FEED SYSTEM

- Covers, (1% moisture increase cost or reduces production 12%)
- VFD, increased torque, less energy
- Proper Bin Draw (3 to 5 % Taper)
- Tensions Maintained
Heat Recovery Bins

- Removes Aggregate Moisture
- Reduces Emissions
Conveyors

- Covered
- Tension Maintained
- Supports
- Truss framed for stability
- Elevated tail pulleys
DRUM

- Insulated
- Seals Maintained
- Inlet & Discharge Dampers in place & functional
- Trunnion Adjustment
- Dryer & Mixer RPM’s
FLIGHTING

- Combustion Flighting
- Dryer Flights
- RAP protection vale
HEAT BALANCE

- Know where the heat goes
- Equal breaching temperatures
- No opening in the veil
BURNERS

• **Clean** regularly; fuel delivery system: nozzles, strainers, traps, fans
• **Tune ups** often with monitoring
• **Pressures** monitored as equipment wears, especially with coal and recycled fuels
• **Total controlled** combustion systems, simultaneous combustion
Exhaust Filtering & Handling

- No holes
- 1. Ducts
- 2. Bags
- Cleaning cycles
- Insulation
- Damper functioning
EXHAUST FAN

• VFD

• Dual vs. Single motor

• Dampers functional & controlled

• Impeller clean and balanced

• Backward Incline Fan

• Power Monitoring
Mix Handling Conveyor & Equipment

- Lubricate
- Clean (Release agents)
- Proper chain tension
- Gates & Batchers sealed
Liquid Storage & Handling

- Insulate
- Low Temperatures
- Clean
Piping & Pumps

- Insulate, settling
- Safety
Asphalt & Fuel Heating Systems

- Time clocks
- Zone thermal fluid
- Temperatures set low
- Coking a NO NO
Controls

- Calibration
- Communication
- Information
• SCHEDULING

• TRANSPORTATION
WHY ASPHALT IS BETTER

- Most recycled product in the world
- Smoothest & long lasting
- Immediate traffic even for our Hero's
Questions

THANK YOU

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