A New Way To Treat and Stabilize When Dust is a concern

“That dust ain’t goin’ to kill me” - Woodie Guthrie
Pavement Technologies
A New Perspective For A New Era
• What can we make an AndaleSlurry base out of?
  • Existing soils
  • Recycled materials
  • New materials
  • The same materials that you can do with dry applying cement

• What kind of QC or testing is required?
  • Same as methods and procedures as soil requires
  • Prepare a competent mix design
  • Build by the numbers

“Guide to Cement Treated Bases”
Cement.org
Why AndaleSlurry?

1) Dust-The best method for protecting our people and environment!!
2) Inconsistent Product distribution with traditional methods
3) Improves moisture and density consistently
   (MANAGING MOISTURE IS THE #1 KEY TO SUCCESSFUL STABILIZATION AND TREATMENT)
4) Accurate, predictable, effective, not complicated, and reproducible
5) We can do more than just Cement!! Different recipes for different situations
OSHA's Final Rule to Protect Workers from Exposure to Respirable Crystalline Silica

"These diseases... are not relics of the past. We see patients who are coming in from foundries, coming in from stonecutting operations, from little construction jobs and sites, with silicosis."

—Robert Cohen, M.D., pulmonologist at Cook County Hospital in Chicago and member of the American Thoracic Society

Rule requires engineering controls to keep workers from breathing silica dust.

The Occupational Safety and Health Administration (OSHA) has issued a final rule to curb lung cancer, silicosis, chronic obstructive
BATCHING SUPERSLURRY AT THE PLANT
AndaleSlurry is a homogeneous liquefied cement copolymer that becomes thixotropic during static mixing and remains in various degrees of thixotropy until mechanical particle separation occurs.
Thixotropy is a time-dependent shear thinning property. Certain gels or fluids that are thick, or viscous, under static conditions will flow (become thin, less viscous) over time when shaken, agitated, sheared or otherwise stressed (time dependent viscosity).

Thixotropy - Wikipedia
What makes Andale Slurry unique?

- ≥60% Material 40% Water
- Hydration time doesn’t begin until job-site mixing operation
- Greater travel time
- Lower viscosity
- No mechanical mixing in the plant
- More controlled application of solids
- Greater suspension of solids
- Superior particle distribution
- Improved cement efficiency
Making Common Slurry is Moving DUST From One Area To Another
Traditional Slurry placement
Note: Robust Viscosity....Remains at Point of Placement
Note the Andale Slurry Remains in Suspension After 8 Hours. Common Slurry (on the left) Completely Salted-out After only 5 Minutes.
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Andale Slurry Approved Agencies
(Partial List)

✓ New Dallas Cowboy Stadium – Soil Stabilization
✓ TxDOT projects – Soil Stabilization/FDR
✓ OKDOT – Soil Stabilization/Remediation/FDR
✓ Indianapolis Colts Stadium – Soil Stabilization
✓ Indiana DOT – Soil Stabilization
✓ Kansas DOT – Soil Stabilization/FDR
✓ Texas Oil Field Projects – Soil Stabilization/Modification
✓ Numerous Airports
✓ KSU Stadium
✓ 23 Texas Counties
✓ 10 Oklahoma Counties
✓ 15 Kansas Counties
✓ Several municipalities in CA
2004 Specifications
SPECIAL SPECIFICATION

TXDOT
Cementitious Slurry (Plant Mix)

1. Description. A pneumatic mix of cementitious materials with water for modification and stabilization of subgrade soils, sub-bases, and bases.

2. Definitions. The terms used throughout the specification are defined as follows:
   • Cementitious – Bonding particles together by a cementing affect.
   • Soil-cement - Uniform mixture of a cementitious slurry and in-situ soils.
   • Full Depth Reclamation (FDR) – The process of recycling the existing pavement structure into the existing base, sub-base or subgrade.
   • Soil stabilization – Cementitious bonding of the soil particles to increase the compressive strength value. Minimum compressive strength value xxx psi or cement range?
   • Soil modification – To alter the soil composition by reducing the plasticity index (PI).
AndaleSlurry vs. Common Slurry Or Dry Applications

- One load covers twice the area (More solids in our solution)
- Expedites the Project Schedule
- Easier clean up
- Easier to obtain compactive effort
- No mechanical mixing of the cement and slurry
- No segregation with AndaleSlurry product
- Unmatched consistency
“Making Dirt and Concrete Great Again”

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