Particle Size Distribution Monitor for Tank Waste Slurry (TechID 2935)

The Lasentec M600P uses a technique known as focused-beam reflectance measurement (FBRM), which involves focusing a laser to a fine point. The Lasentec FBRM provides a continuous, high-speed count of particle population by dimension, making it possible to track the rate and degree of change of solids composition in waste slurry on the basis of both particle count and particle dimension. FBRM is a real-time, in-process measure of particle count and dimension by chord length distribution. The chord length distribution is a function of the shape and dimension of the particles and particle structures as they exist in the process.

Developers:

- Laser Sensor Technology, Inc. (Lasentech)

Applications:

- Demonstrated and deployed (FY99) at Oak Ridge Reservation.

Benefits:

- Helps in avoiding tank waste slurry pipeline blockages, which
- cause downtime,
- are costly to correct, and
- create potential for exposure to personnel.

Status:

- Commercially available from Lasentech (JimJ@Lasentec.com)
- See Innovative Technology Summary Report for TechID 1547, Comparative Testing of Pipeline Slurry Monitors, (www.cmst.org)