

Compost Facility in the Mountain West

Customer:

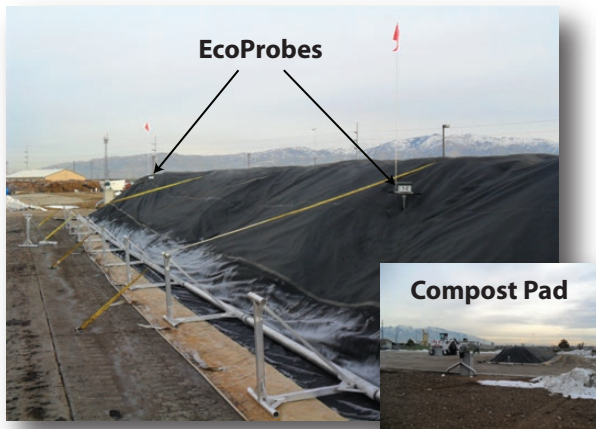
Compost Facility in the Mountain West, U.S.A.

Background:

The Compost Facility in the Mountain West upgraded and expanded their composting facility in order to better handle the area's solid waste and in anticipation of increased demand for their finished product. The expanded compost facility was built adjacent to the existing water reclamation buildings on the southeast corner of the 85 acre facility.

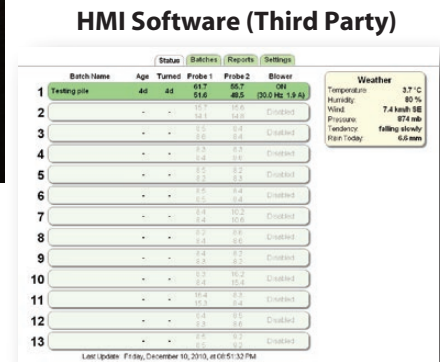
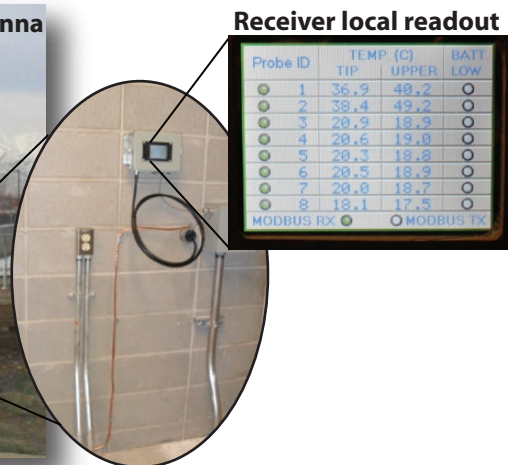
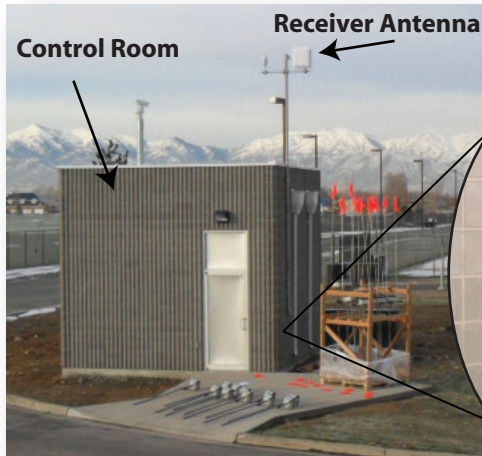
Project Overview:

- Monitor 13 windrows spread over a 200,000 sq. ft. area with 26 wireless temperature probes.
- Collect wireless data via receiver antenna.
- Install local readout on receiver box for on-site monitoring
- Develop using Modbus protocol.
- Transfer raw temperature data into control system.



Compost

Above you can see two EcoProbes inserted into one of thirteen covered windrow piles, each of which is roughly 150 feet long. Notice the long orange marking flags which help to ensure the probes are removed prior to turning. To the right, you can see all 26 probes laid out and ready for installation. Temperatures are reported every 5 minutes.



Temperature data from the EcoProbes was transmitted back through the Receiver Antenna to the wall mounted Receiver Box. Then, the data was funneled into the PLC control system which controlled blowers. A custom HMI was designed by a 3rd party to display temperatures, batch I.D.'s, and other pertinent information. All of which was viewable remotely through the internet. The customer was excited to have a wireless solution in place recording their temperatures and ensuring accurate, consistent data.

Benefits of a Wireless Solution:

- Reduce Labor Costs
- More Data (every 5 minutes)
- Remote Access 24/7
- Historical Data Storage
- Continuous Monitoring
- Accurate Data (minimizes human error)
- Improved process management/process control