

# Oquirrh Mt. Biosolids Composting Facility (Salt Lake City, UT), Central Valley Water Reclamation Facility (CVWRF)

## 1992 Off-site Windrow Composting Facility

Central Valley Water Reclamation Facility (CVWRF) first began composting its wastewater generated biosolids in 1992, fifteen miles away from the main wastewater treatment plant site in Salt Lake City, UT. Using the conventional windrow composting technology, the process took up to six winter months to complete (achieve PFRP and stable finished product) and emitted significant odors, especially when the piles were turned.

## 2006 Aerated Static Pile Composting Technology Pilot Study

In September 2006 CVWRF commenced with a pilot study to determine the feasibility of composting using the covered (in-vessel) aerated static pile (CASP) technology. The goal was to reduce processing time, eliminate odor emissions and produce a high quality finished product (soil amendment) for unrestricted sales. The pilot study was a huge success; it met all its goals (PFRP in less than ten days, virtually no odor emissions and finished product sales producing \$18-24/yd<sup>3</sup> on bulk revenue sales from about \$72/yd<sup>3</sup> (sold in 40lb bags).

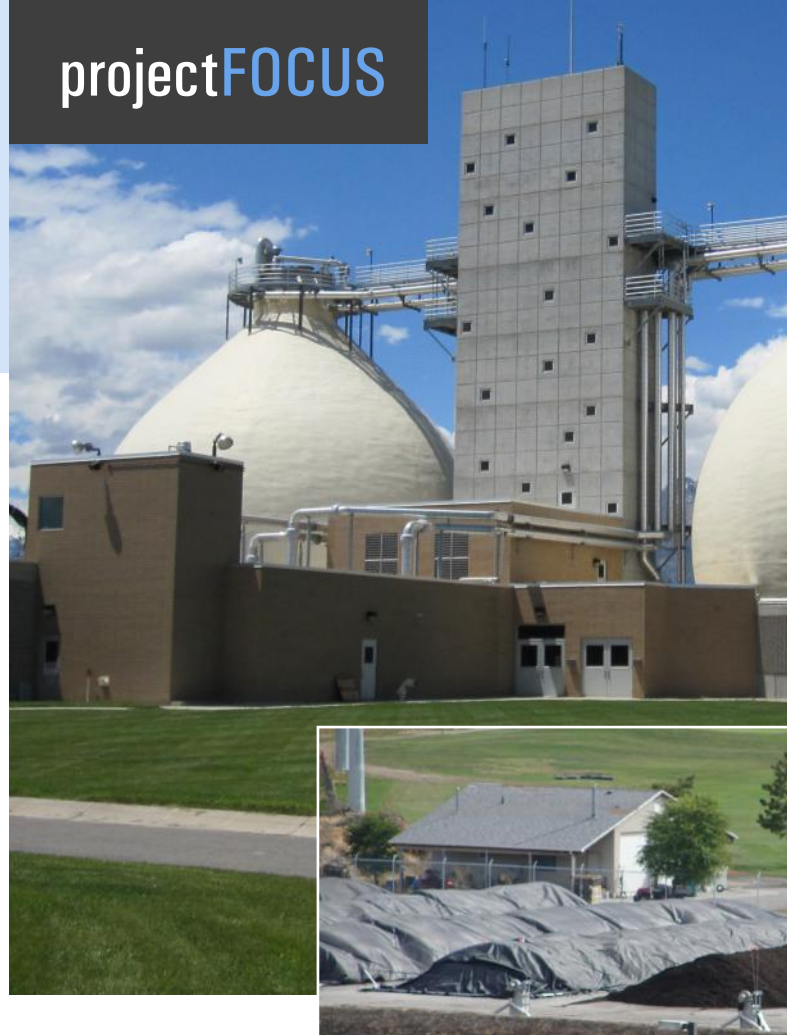
## 2010 – Today

Today, 40% of CVWRF's daily biosolids production (40 wet ton/day) is composted at the central wastewater treatment plant in Salt Lake City, UT.; processing about 60 million gallons per day. Nearby local receptors make it mandatory that odor emissions are completely controlled. To-date, no odor complaints have been received.

## Managed Organic Recycling (MOR)

MOR supplied fourteen (14) 37.5ft X 175ft ePTFE compost covers, aeration blowers, in-slab aeration plenums (AirFloor® by BuildWorks), radio-frequency temperature probes (ReoTemp), an aeration management system (AMS) by Agile Controls Inc. and a MOR Cover Placement Machine (CMP).

The process recipe is specified as mixture of dewatered biosolids (17.5 percent total suspended solids) and bulking agent (wood chips) at a 1:1 ratio by weight. The biosolids and feedstock are mixed in a truck mounted RotoMixer and delivered to the pile site. Each week two fresh piles are built. The entire process lasts from six to eight weeks (mainly dependent on



the season and Process to Further Reduce Pathogens (PFRP) temperatures in the pile. The finished product meets the US Composting Councils' Seal of Testing Assurance (STA) program requirements.

Now that the process is "dialed -in", according to General Manager Tom Holstrom, operators are looking at ways to reduce processing times. CVWRF is also evaluating different product blends of soil amendment to increase sales. The long term goal is to compost all of its biosolids (100 wet ton/day) on site. This will eliminate hauling costs for land application of all biosolids that are not composted.

## TECH SPECS PHASE 1 CONSTRUCTION

- 13 MOR ePTFE micropore covers (37.5ft x 175ft)
- 1 MOR cover placement machine (CPM)
- 2 AirFloor® by BuildWorks, aeration plenums, per pile, with AirLok™ basins and automatic flushing system
- 13 Variable speed blowers, 5 hp.
- 28 Radio-frequency temperature probes
- 1 Aeration management system & controls with HMI features and data logging

