

PROJECT FACT SHEET

Customer: Transfield, On behalf of the South Eastern Recycled Water Alliance (SERWA)

Project: Mt Martha Solar Dryer Facilities

Project Profile: Nilsen were engaged by Transfield Services to install the electrical and communication works for the Mt Martha Solar Dryer Facility. The project was completed in October 2014 and in July 2015 was awarded a NECA Excellence Award for Victoria.

This state-of-the-art solar dryer plant was constructed to provide a reliable means of drying sludge independent of weather conditions and reduce the load on the existing sludge drying pans. Designed to process over 370 tDS (tons of dissolved solids) per year, the facility is located on the Mornington Peninsula, about one hour's drive from Melbourne.

The facility consists of:

- two aerobic digesters (400 kL each), which can be run either in series or parallel configuration, where the received anaerobically digested sludge is aerated to reduce its odour potential;
- a sodium hydroxide bulk storage (20,000 L) and dosing facility to provide pH correction in the aerobic digesters;
- two storage tanks (200 kL each) for sludge pre-thickening where the aerated sludge is dosed with polymer, settled and the supernatant decanted;
- a centrifuge for sludge dewatering;
- a polymer solution makeup and dosing system that supplies the two storage tanks and centrifuge;
- two 500m² glass solar drying halls where dewatered sludge cake is dropped via a conveyor system and the cake solids are spread, turned, displaced and accumulated using turners;
- a wastewater pump station for receiving decanter flows, centrifuge centrate, tank emergency overflows and contaminated drainage, which is returned to the main plant inlet via the sludge drying pan supernatant return line.

