

Waste Treatment Plant Fluidic Components

MCE was contracted to build approximately 280 L50M Jet Pump Nozzles for ultimate use in the Hanford Waste Treatment and Immobilization Plant (WTP).

MCE built these components for the team of BNFL and AEA Technologies who designed the components and the related systems and were ultimately responsible for final testing of all the fluidic components prior to their installation at the WTP.

The scope of equipment and support provided by MCE includes the following:

- Pre-machine individual components to exacting tolerances
- Fabricate five machined pieces and two specialty Tees into an extremely precise weldment
- Pressure test each unit
- Individually package each unit for shipment to North Carolina. (Dimensional tolerances must be maintained during shipment.)

The L50M Jet Pump Nozzles are made entirely from 316L stainless steel and polished to allow for easy decontamination. They are used in the WTP in a venturi manner for transferring radioactive sludge for testing prior to processing. These components are built to exacting tolerances and rigorous quality standards.

To-date for this on-going project, MCE has successfully manufactured a total of 283 jet pump nozzles comprised of 1,698 welds with a reject rate of 2.8%.



**Client: EnergySolutions
Richland, Washington**