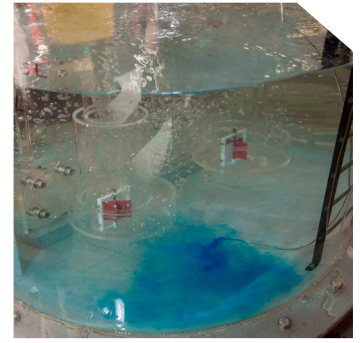
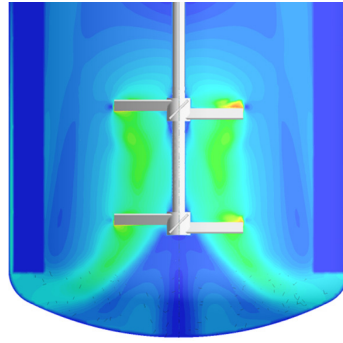


BHR GROUP NUCLEAR DECOMMISSIONING SERVICES



BHR Group has worked in the Nuclear Decommissioning industry for over 40 years. We provide expert engineering consultancy; measurement and testing; predictive modelling; product development and qualification services. We also undertake industrially focussed research and provide specialist training services.

We work with a wide range of clients including Sellafield Ltd, UKAEA, Magnox, Hanford, BNFL and their suppliers.

Specialist Cutting & Decontamination

- High pressure abrasive-water jet cutting – for structural and plant size reduction
- High pressure abrasive-water jet scabbling equipment – for surface contaminant removal
- High pressure abrasive-water jet piercing equipment – for vessel/can depressurisation
- Engineering specialist cutting tools into delivery systems including robots and manipulators.

Process & Equipment Design, Development & Selection

- Design, development, selection and testing of mechanical and pulsed jet mixers
- Remobilisation, suspension and transportation of sludge in pipes, bends, branches and vessels
- Pipeline design for transporting complex and multiphase fluids and settling slurries
- Selection and sizing, including deration, of both centrifugal and positive displacement pumps
- Development and qualification of instrumentation for on-line measurement of sludge.

Test & Measurement Services

- On-site measurements of yield stress as a function of sludge bed depth
- Rheological measurement of sludge and complex fluids to BS and ISO standards
- Scaled physical models of hydraulic structures, components, processes and fluids.
- Mixing and characterisation of cements and handling systems for encapsulation processes
- Development and characterisation of specialised simulants
- Fatigue and hydraulic pressure testing of components to BS, ISO and SAE standards
- Air and water flow testing of pipeline, valves, pumps, etc
- Wear behaviour of sludge through piping and pumping components
- Bi-axial stress/strain testing of elastomeric materials under internal pressure.

Computational Modelling Services

- Computational Fluid Dynamics (CFD) using ANSYS Fluent and OpenFOAM for predictive modelling of single and multiphase fluids in process pipework and plant
- Steady state and transient pipe network analysis using FLOWMASTER and WANDA modelling tools
- Fluid-structure interactions using CFD and FEA (ANSYS Multiphysics)
- Life prediction of elastomeric seals and components in extreme environments
- Process optimisation for sludge handling (SLOT model).