

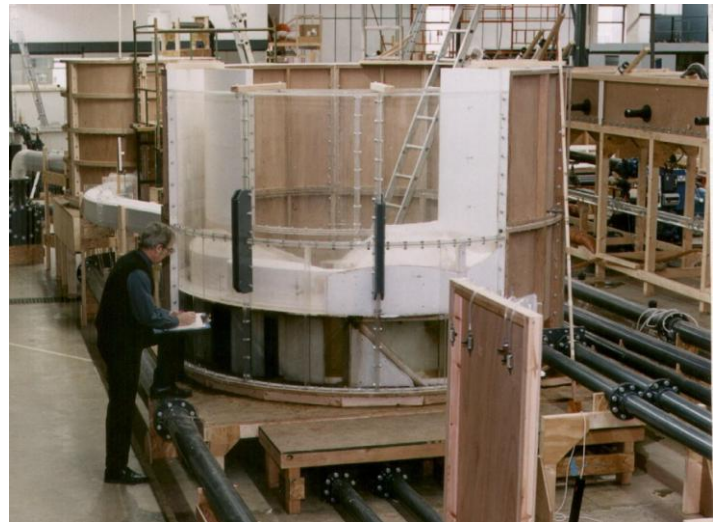
Nuclear Industry Technology Services

BHR Group provides process and mechanical engineering research, development and testing services in Fluid Dynamics and Mechanics across the complete span of the Nuclear cycle resulting in safe and efficient plant.

Consultancy Services

With BHR Group's full range of services, you can improve efficiency and safety – at the same time.

- Site audits and evaluation
- Design and operation of mixing and jet suspension systems for difficult to handle fluids and slurries
- Physical modelling of hydraulic structures and components
- Design engineering and system development
- Mathematical modelling including CFD and FEA
- Pipework system simulation, pressure surge and flow distribution
- High pressure hydraulics design and testing
- Unique sealing system testing evaluation facilities
- Simulation software for lifetime prediction and low level leakage of containment seals
- Slurry handling and pumping design including system abrasion



Large structure physical modelling

Applications

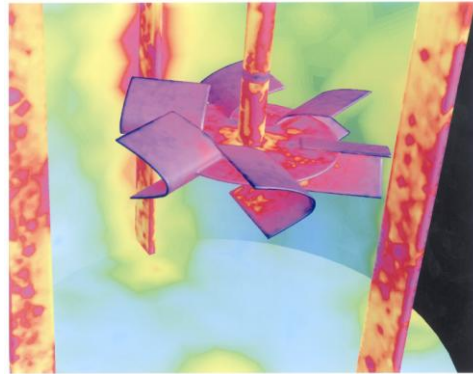
- Mining and processing
- Fuel Manufacture
- Power Generation
- Safety Systems
- Storage and Transport
- Reactor Fluid Dynamics
- Waste Storage
- Waste Handling and Reprocessing
- Encapsulation
- Vitrification

Fluid Systems Modelling

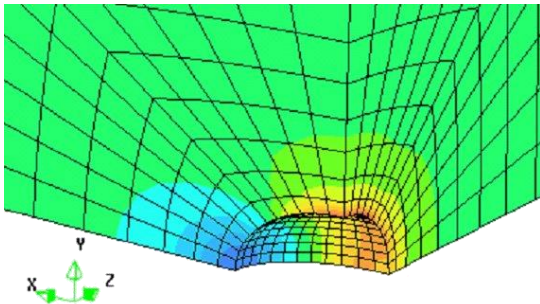
- Flows in primary containment structures e.g. LOCA investigations
- Cooling and fire system and component design modelling and testing including seawater intakes, pump houses, valves, pumps and pipe-work components
- Operational modelling of fluid supply networks including flow distribution, pressure surge, emergency shutdown etc
- Air flow prediction and control in contained areas during processing and filling operations

Process Systems Development

- Development and characterisation of specialised simulants
- Agitation and jet mixer designs for a wide range of process and storage vessels
- Mixing and characterisation of cements and handling systems for encapsulation processes
- Solids dredging, re-suspension, pumping and separation of long term storage materials



CFD modelling of process plant



FEA modelling of sealing structures

Sealing and Containment

- Seal & gasket design including permeation and life prediction
- Asbestos replacement studies
- Material stability studies on reactor composites and components
- Design and testing of sealing systems for specialised machinery



Decommissioning of storage tanks

Decommissioning

- Design and manufacture of cleaning and decommissioning systems using abrasive waterjet cutting technology
- Remote operation systems suitable for hazardous, flammable and toxic environments

Contact us for more information or visit our website.

P-25

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