

CASE STUDY

PROJECT TITLE: REMOTELY OPERATED LIFTING
EQUIPMENT (ROLE)

CLIENT: NATIONAL NUCLEAR LABORATORY (NNL)



AIMS AND OBJECTIVES



The objective was to design and manufacture remotely operated lifting equipment to enable irradiated components to be remotely transferred to different locations within a suite of shielded cells, at Sellafield.

ABOUT THE CLIENT



The National Nuclear Laboratory (NNL) operates a number of facilities offering research, development and consultancy services to the nuclear industry. At the Sellafield site, the NNL Windscale Laboratory operates a range of radiation shielded facilities where nuclear materials are processed and examined. Services include Post Irradiation Examination (PIE) of nuclear fuel and irradiated material, radioactive waste handling and material analysis and testing.



PROJECT OVERVIEW

SCOPE AND PROJECT SOLUTION

The scope of the work for Aquila included site survey, scheme design and detail design, manufacture, testing and delivery of the Remotely Operated Lifting Equipment (ROLE) to the NNL site.

The ROLE was designed to meet the following functionality:

- Located in one of the shielded caves
- Only interface is by using MSMs
- Component imported via sealed flask entry port
- Size reduced components then transferred to other specialist analysis equipment located inside the cell using the ROLE.

SUMMARY

During the tender process, Aquila designed a system in 3D solid works to meet the functional specification. This not only allowed us to de-risk the design from a functional aspect but also enabled accurate estimating to fix the price.



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ACCREDITATIONS



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Pragmatic, cost effective solutions, always