



## CASE STUDY

PROJECT TITLE: **FUME CUPBOARD TO HOUSE A NU INSTRUMENTS MASS SPECTROMETER**

CLIENT: **NU INSTRUMENTS/NATIONAL NUCLEAR LABORATORY**

### AIMS AND OBJECTIVES



Aquila, was awarded a contract to design, manufacture, assemble and work test, a ventilated enclosure for a Nu Instruments MC-ICP-Mass Spectrometer, to be used at the National Nuclear Laboratory.

The fume cupboard was required to operate on constant ventilation volume flowrate and designed so that the face velocity, measured with the sash at working height, would not be less than 0.5 m/s at any point, with distribution compliant with BS EN 14175.

### ABOUT THE CLIENT



Nu Instruments, is a market leading, designer and manufacturer of high performance, mass spectrometers and accessories. Founded in 1995, Nu Instruments is dedicated to producing state-of-the-art, scientific instruments for a variety of analytical applications. They have built a reputation for carefully designing instruments of the highest performance that take the shortest time to install, and have a reliability that their competitors find difficult to match.





## PROJECT OVERVIEW

### SCOPE AND PROJECT SOLUTION

Nu Instruments won a contract from NNL to design, manufacture, install and provide training for a new Multi-Collector Inductively Coupled Plasma Mass Spectrometer (MC-ICP-MS), complete with integral radiological fume cupboard. The MC-ICP-MS, is to form part of NNL's developing capability for high precision isotopic analysis of fuel and moderator materials. Aquila was awarded the contract to design and integrate the MC-ICP-MS to a radiological fume cupboard, working closely with the Nu Instruments team.

### SUMMARY

The design of the MC-ICP-MS fume cupboard was based on a similar application provided to Nu Instruments, by the Aquila team previously, which is in use at Sellafield Ltd.



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### ACCREDITATIONS



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