

Quality Management of Science in Marine Scotland Science



Background

Every year, Marine Scotland Science (MSS) makes a large number of measurements and observations in the marine and freshwater environments. These are used as a basis for protecting our seas, and assuring the quality and safety of the fish and shellfish that we eat. In addition, they provide reliable information on the distribution and changes in the concentrations of harmful chemicals, and on the nature and distribution of fish diseases.

A systematic routine check on the quality of these observations is essential to maintain confidence in the data obtained and to provide the necessary Quality Assurance to our customers, who use this information.

MSS operates an extensive formal internal Quality Assurance system for its measurements and inspection functions. The system operates under

the International Standards ISO 17025 and ISO 17020, and is monitored and externally audited annually by the United Kingdom Accreditation Service (UKAS). In addition, research projects work to the standards laid down by the Joint Code of Practice for Research.



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How is quality managed at MSS?

The Quality Manager advises on all MSS quality matters and has overall responsibility for ensuring that the scientific work within the Quality System at MSS is conducted in compliance with the relevant standards.

The Technical Management team is responsible for:

- Implementing the quality system at MSS;
- Monitoring its effectiveness;
- Rectifying anomalies; and
- Ensuring that all technical operations at MSS are carried out in compliance with the quality standards.

The MSS Quality System is a dynamic process and methods are added to, or removed from, the scope of accreditation as business needs evolve.

The management of the system has been made more robust by the recent implementation across all accredited methods of a Laboratory Information Management System (LIMS).

Joint code of practice for research

MSS has implemented the Joint Code of Practice for Research in all research work conducted throughout the Laboratory. The Code is intended to provide assurance to research funding bodies, Food Standards Agency (FSA), the Department for Environment and Rural Affairs (Defra), the Biotechnology



and Biological Sciences Research Council (BBSRC) and the Natural Environment Research Council (NERC) that the processes used to gather and interpret the results of the research are appropriate, rigorous, repeatable and auditable.

In order to meet the requirements of the Code, MSS has developed policies and procedures to:

- Define the responsibilities of staff working on research projects;
- Ensure staff are suitably trained and competent to carry out the tasks required of them;
- Control how projects are planned and managed;
- Define the relevant and appropriate level of quality control, both for laboratory activities and project outputs;
- Confirm that all the relevant Health and Safety, legislative and ethical requirements for the project work are met;
- Assure the sample handling process, including sample identification, storage and disposal;
- Ensure the facilities and equipment used are fit for purpose, and where relevant, calibrated;
- Document to the appropriate level, all procedures and methods used in research projects; and
- Produce all research and work records in a traceable manner, and archive them securely.