1. Job details
Job title: SUERC Laboratory Manager (stable isotopes lab)
School: Geosciences
Unit: Isotope Geosciences Unit, Scottish Universities Environmental Research Centre (SUERC), East Kilbride
Line manager: Director of SUERC
Manager within School: Physical Resources/Scientific & Technical Services Manager

2. Job Purpose
To maintain, manage and develop the analytical capabilities of the stable isotope laboratories at SUERC.

3. Main Responsibilities

1. Training and supervising post-graduate, academic and visiting research collaborators in the running of the stable isotope systems; liaising with users on progress towards meeting of targets and discussion and implementation of actions required in overcoming problems with instrumentation and preparation systems as they arise. 

2 Devising and overseeing the implementation of quality assurance and calibration procedures to ensure precision and accuracy of output data.

3. Safety committee work in collaboration with the safety advisor and producing COSHH risk assessments.

4. Design and provision of training and quantifiable assessment to junior staff as a formally qualified workplace assessor (recognised by the Chemical Industries Association).

5. Monitoring and recording of laboratory expenditure and discussion of contributions allocated from academic staff grant holders to meet departmental budgets. Scheduling commercial contract work with external agencies and invoicing for projects completed on behalf of the above.

6. Carrying out hands-on maintenance and repair of mass spectrometers and sample extraction systems. Contacting suppliers and support service providers to ensure uninterrupted functioning of the systems in the Stable Isotope Laboratories.

7. Collaboration with external manufacturers of laboratory equipment in development of new and specialised systems. Discussion of design modifications and improvements to existing systems on a triage basis.

8. Chair of SUERC Environment and Sustainability Committee. Responsible for writing the Centre’s Environment Policy Statement and for driving initiatives in pursuance of the aims and objectives in the policy statement.

4. Planning and Organising
- Design and adapt new and existing hardware systems with colleagues to meet changing needs of the customers within the scientific community.
• Scheduling laboratory time for use of affiliated researchers from other universities.
• Scheduling maintenance (e.g. vacuum pumps, compressors etc) with external agents.
• Keeping records of orders for laboratory consumables and negotiating with grant holders to maintain spending within the departmental budget.

5. Problem Solving
• Troubleshooting mass spectrometers and sample preparation systems: skills required involve engineering, instrumentation and electronics knowledge, together with an in-depth knowledge of the theory of isotope ratio mass spectrometry.
• Devising environmental improvements within SUERC e.g. driving the design and in-house construction of low-cost and low-energy-usage cooling water recirculators.

6. Decision Making
• Full discretion on work priorities, which may vary on a day-to-day basis in response to events as they occur.

7. Key Contacts/Relationships
• Negotiating with collaborating support grant holders for contributions to expenditure on consumables to maintain spending within the departmental budgets.
• Personal contact for scheduling and handling work for external users and consultants requiring isotope analysis on an occasional basis.
• Liaising with support services (mechanical, glassblowing, electronic) in developing the laboratory’s infrastructure and functionality.
• Providing consultation and advice to academic and technical staff in other departments.

8. Knowledge, Skills and Experience needed
• Degree in Chemistry or Physics with preferred additional qualification in electronics and/or instrumentation and a minimum of five years experience in isotope science and mass spectrometry.
• The operation of systems requiring fluorinating reagents is potentially highly dangerous and in-depth knowledge and understanding of the properties of such substances is essential.

9. Dimensions
• The Stable Isotope Unit has twelve mass spectrometers, five academic staff, six technicians and six laboratories housing nine vacuum systems incorporating state-of-the-art equipment with a collective value in excess of £3M.
• Responsibility for monitoring the Stable Isotope Unit consumable budget of c.£10k p.a. and negotiating allocations of proportions of support budgets of a similar size.

10. Job context and any other relevant information
The postholder is employed by Edinburgh University but based full-time at SUERC as part of the University’s support for this joint Scottish facility.