Candidate Information

Position: Solid Fuel Facility Scientist
School/Department: School of Chemistry and Chemical Engineering
Reference: 25/112891
Closing Date: Monday 20 October 2025
Salary: £41,519 - £49,536 per annum
Anticipated Interview Date: Thursday 30 October 2025
Duration: 36 months

JOB PURPOSE:

To develop, establish and manage a Solid Fuel Testing Facility within the School of Chemistry and Chemical Engineering at Queen's University Belfast, funded under the PEACEPLUS programme, ensuring delivery of high-quality analytical and testing services that meet the needs of academic researchers, regulatory authorities, industry partners, and community stakeholders across the island of Ireland. The post holder will lead on instrumentation procurement and installation, promote the facility, manage operations, and ensure compliance with relevant safety and accreditation standards. They will also contribute to expanding collaborative links with external users, supporting cross-border initiatives to improve air quality and reduce harmful emissions from domestic and industrial solid fuels.

MAJOR DUTIES:

1. Provide specialist expertise in solid fuel testing, combustion analysis, and emissions monitoring to deliver a professional service project partners and external stakeholders.
2. Prepare analytical protocols and SOPs that ensure the facility meets relevant quality and accreditation standards (UCAS and INAB) and evolves to meet regional and EU/UK policy needs.
3. Work with the Facility Academic Lead to promote the facility to external stakeholders, including councils, government agencies, and fuel suppliers, supporting PEACEPLUS objectives of environmental protection and public health.
4. Commission, operate, and maintain specialist instrumentation (e.g. GC-MS, elemental analysis, calorimeters).
5. Liaise with service engineers, suppliers, and technical specialists to minimise downtime and ensure continuous operation.
6. Provide input to pricing models, contract negotiations, and cost recovery to ensure long-term sustainability of the facility.
7. Support reporting requirements of the PEACEPLUS programme, including KPIs on regional engagement and cross-border collaboration.
8. Contribute to university-wide and external committees, projects, and events relevant to clean air, fuel standards, and sustainability.

ESSENTIAL CRITERIA:

1. Hold a PhD in Analytical Chemistry, Environmental Science, or related discipline with experience in instrumental analysis, combustion testing, fuel characterisation, or emissions analysis.
2. Specific, relevant experience operating and interpreting analytical instrumentation results, with emphasis on fuel testing or combustion/emissions instrumentation.
3. Publication record commensurate with stage of career.
4. Proven experience managing projects, collaborations, or facilities with budgets of £50–100k per annum.
5. Ability to train, supervise, and support multiple users (academic, regulatory, and industrial).
6. Strong organisational, communication, and problem-solving skills.
7. Ability to communicate complex information in English effectively in oral and written format.
8. Ability to build relationships to develop internal and external networks.
9. Commitment to continuous professional development.
10. Willingness to work flexibly, including outside normal hours when required by facility operations.

DESIRABLE CRITERIA:

1. Postdoctoral or industrial experience in combustion testing, air quality monitoring, or related applied research.
2. Experience in additional analytical techniques relevant to fuels and emissions (e.g. GC-MS, calorimetry, ash analysis, TGA, XRF).
3. Experience managing a multi-user facility, negotiating service contracts, and supporting accreditation.
4. Familiarity with environmental and regulatory standards (e.g. EN standards for fuel testing, UK/EU air quality directives).
5. Demonstrated track record of collaboration with external stakeholders (industry, regulators, or community partners).

ADDITIONAL INFORMATION:

Informal enquiries may be directed to: Professor Panagiotis Manesiotis at p.manesiotis@qub.ac.uk.