HEALTH AND SAFETY LABORATORY
BUXTON

CHEMICAL REACTION HAZARDS SPECIALIST
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About us

The Health and Safety Laboratory (HSL) is an agency of the Health and Safety Executive (HSE) and is a unique multidisciplinary organisation with an international reputation as the UK’s leading health and safety facility. With a new purpose built laboratory, excellent technical facilities and highly qualified staff, HSL has a sound foundation for further growth.

The scope of HSL’s work requires a diversity of talents. HSL employs around 400 people including scientists, engineers, psychologists, social scientists, health professionals and technical specialists. Operating from our main laboratory in Buxton, plus a number of field stations, our staff have a long track record of effective operation throughout the UK and beyond. HSL’s capabilities encompass a wide range of topics including: fire, explosion and process safety; human factors and risk assessment; occupational and environmental health; safety engineering; work environment; and specialist photographic and technical services. This breadth of expertise underpins our particular strength in creating multidisciplinary teams to solve health and safety problems.

Our Buxton site is home to a new purpose-built laboratory, completed in November 2004.

As well as analytical laboratories for chemical, microbiological, occupational health, occupational hygiene and fire and explosion work, the building houses specialist facilities for studying thermal stress, personal protective equipment and pedestrian safety, an anechoic chamber for noise and vibration work, a biomechanics laboratory and a customised suite for human volunteer studies. The engineering block includes the largest and most versatile Universal Test Bed (UTB) in the country.

We also have extensive trials areas on the Buxton site where we are able to undertake large-scale experiments, particularly in the areas of fires and explosion safety. The facilities include the biggest impact track in Europe; one of the largest open air test ranges; two large tunnels for studies of explosions and fires; a purpose-built jet fire facility; drop weight facilities; a temporary structures rig; and wire rope fatigue testing equipment.

These facilities, together with our new state-of-the-art laboratory, will enable HSL to maintain its position at the forefront of research in work-related accidents and ill-health.

The Customer Base

HSE, our owner, is HSL’s main customer but our external business with the private sector and other government departments has grown strongly over the past few years and now contributes some £8m to HSL’s income. A further significant increase in our external business is now planned to take HSL to the next stage in its development. This will involve both developing relationships with current customers and diversifying the customer bases.
CHEMICAL REACTION HAZARDS SPECIALIST

*****PLEASE NOTE***** This vacancy is being advertised internally and externally. For internal HSE/HSL applicants you must attach a line manager suitability statement (see HR Guidance)

Salary

Under HSL’s current pay arrangements, subject to an effective level of performance, staff progress annually towards the maximum of their pay scale. The maximum of the pay range for this post is currently £41,248. Successful applicants will be offered a point on the salary scale, appropriate to the level of their experience and skills, within the range £32,344 - £37,451

The post

This is a hands-on role focussing on leading/supporting incident investigations in the chemical, process and associated industries. There is also the requirement for high quality analysis and interpretation of results that are suitable for scientific peer-reviewed articles and legal proceedings. It is expected that the post holder will develop a personal scientific reputation and intellectual property through research projects, presentations and publications. There is also a need to support HSL’s initiatives in increasing commercial work in this topic area for clients in the chemical and allied industries and also consultancy for Other Government Departments.

It will require knowledge or clear potential in the following technical topic areas:

- excellent theoretical knowledge of thermo-chemistry relating to hazards in industry;
- laboratory experimental design and measurement techniques;
- incident investigation;
- chemical reaction hazards;
- energetics and unstable substances
- calorimetry;
- classification schemes
- ad hoc tests on hazardous materials.

The post holder will also need the:

- Ability to work flexibly as part of a team;
- Credibility and negotiation skills with inspectors, duty holders and colleagues;
- Excellent communication skills (written and verbal/oral);
- Ability to appear as an expert witness.

About the role

This is a specialist scientific role including incident investigation, experimental design, and theoretical analysis related to chemical reaction hazards, unstable substances and hazardous chemical classification.

- Leading theoretical and experimental input to chemical process incident investigations.
- Acting as an expert witness on chemical reaction and decomposition hazards.
- Leading research, testing and consultancy projects for HSE and commercial clients.
- Maintaining and developing HSL’s reputation for independent expertise in chemical process safety and chemistry of hazardous substances through a working knowledge of innovations and relevant applications.
- Supporting the development of further business in these areas, working with other staff and customers to identify opportunities.
- Writing technical input to proposals, reports and peer-reviewed publications.
- Presenting technical findings to a range of stakeholders, including legal proceedings, HSE sponsors, industry and academia.
Person requirements

Relevant experience required:

You must have:-

- Good degree in chemistry, chemical engineering or a closely related subject.
- PhD, or equivalent R&D experience, in a relevant topic area.
- Experience of chemical reaction hazards and/or thermo-chemistry.
- Experience of related instrumentation and measurement techniques.

Desirable Requirements:-

- Member of relevant professional body (eg RSC or IChemE).
- Incident investigation experience.
- Understanding of the properties of energetic materials.

You must also be able to:

- Persuade and influence others.
- organise and prioritise work effectively.
- Adapt quickly and effectively to change.
- Make sound decisions and judgements.

There may also be occasional overnight stays.

You will also need a full driving licence that permits you to drive in the UK unless reasonable adjustments can be made under the Disability Discrimination Act

OTHER REQUIREMENTS:

If you are selected for interview you will be required to provide evidence, at the interview, of the Learning and Development/Continuous Professional Development that you have undertaken to prepare you for your career progression. This should be in the form of a Professional Portfolio (which should include an up to date L&D/CPD log/record), or a written summary of what informal and formal Learning and Development you have undertaken, what you learned/key benefits and, where relevant, how the learning was used.

Benefits Package

Membership of the Civil Service Pension Scheme. (Please see section dedicated to Pensions on page 6 of this booklet);

We offer a generous annual leave allowance of 25 days (increasing to 30 days after 5 years service) plus an extra 2.5 days ‘privilege’ days leave, plus public holidays;

The opportunity to help take a successful and growing organization to the next stage of its development;

We value our employees and recognise that you may need to combine work with the demands of family life so we are committed to family friendly policies.
Application and Selection Procedure

If after reading this information booklet you wish to apply click the ‘back’ button at the top left of the page and you will be taken back to the advert. At this stage please open and read ‘Quick Guide for External Applicants’. Select online recruitment system under the title ‘To Apply’ and proceed with your application. When you are in the Online Application Wizard please work across the tabs. You may either complete the work experience and education screens or alternatively attach your CV by clicking on the ‘attachments’ tab. You will also need to complete the application form. Once you have submitted your application, you will receive an acknowledgment.

If you are invited for interview they will be held in Buxton.

Referees

HSL is required to seek references to cover the last 3 years. You should not send testimonials, you will be asked on your application form, or, at a later stage if you are considered otherwise acceptable for appointment, for the names of referees, who are not related to you and who have given permission for HSL to approach them. They should have first-hand knowledge of your qualifications and experience and be able to report on your present or recent employment. If you have undertaken relevant further education in the last 5 years, you should name the member of the academic staff best acquainted with your work and conduct. You should give more than one name if this is necessary in order to cover the period of such education.

Security Clearance

This post requires security clearance and the successful applicants will have to undergo an appropriate level of security vetting.

Travel and Overnight Expenses

Within certain limits, HSL will refund your travelling expenses (and, if you have to stay overnight away from home, your accommodation costs) incurred within the United Kingdom in attending an interview or examination. Details will accompany your invitation to interview or examination. We cannot refund expenses for travel to this country from abroad. If you are already a civil servant, you may wish to ask your HR whether you can be regarded as travelling on duty. If you are serving overseas in HM Forces, you should ask your service authority about the possibility of travel at public expense.

Complaints Under the Civil Service Commissioners’ Recruitment Principles

The HSE’s recruitment processes are underpinned by the principle of selection for appointment on merit on the basis of fair and open competition as outlined in the Civil Service Commissioners’ Principles which can be found at www.civilservicecommissioners.org. If you feel your application has not been treated in accordance with the Principles and you wish to make a complaint, you should contact hrservicecentre@hse.gov.uk. If you are not satisfied with the response you receive from HSE, please contact the Office of the Civil Service Commissioners.
Eligibility and other Information

Nationality

Most civil service posts are open to UK Nationals; Commonwealth citizens (which includes British Dependent Territories citizens, British Nationals (overseas), and British Overseas citizens; British Protected persons; EEA nationals (including EFTA) of other member states; and certain non-EEA family members. You must establish if you are eligible before submitting your application.

Health standard

To be appointed to the Health and Safety Executive you should be able to give regular and effective service without undue risk to your health. If successful you will be asked to provide details of your health record on a health declaration form. This will be treated with the strictest of confidentiality and only examined by HSE’s Occupational Health Service provider.

Character

If you are appointed, a check against the National Collection of Criminal Records will be undertaken and documentary evidence sought to confirm your answers.

Pension

As soon as you start your new job, you are eligible to join the Civil Service pension arrangements.

We offer you a choice of two types of pension:

- Nuvos. This is an occupational pension scheme that currently has a 3.5% member contribution rate. As your employer we meet the rest of the cost of the scheme.
- Partnership pension account. This is a stakeholder pension with a contribution from ourselves. How much we pay is based on your age. We pay this regardless of whether you choose to contribute anything. You do not have to contribute but, if you do, we will also match your contributions up to 3% of your pensionable earnings. The contributions are in addition to the age-related contribution mentioned above.

You do not have to join the Civil Service Pension arrangements; you may opt out and be covered instead by a personal pension or the State Second Pension Scheme (S2P). You will be automatically entered into the Nuvos scheme on appointment unless you return your choice form at or before your start date. However, if you want your alternative pension arrangements to apply from the start of your appointment you must make your decision within three months of that date. If you wish to transfer pension benefits into PCSPS you should apply within 12 months of joining HSE. Our pension's administrators are: DWP APAC Newcastle, Employee Services, Staff Pensions, Room BP5202, Benton Park View, Longbenton, Newcastle-upon-Tyne, NE98 1YX Tel No: 0870 010 0597.

For further information please visit the Civil Service Pensions website [www.civilservice.gov.uk](http://www.civilservice.gov.uk)