



Business area: Nuclear and Power

Requirements: Minimum 2.1 Bachelors/BEEng degree in Mechanical Engineering, BIM, Mechatronics

Our teams and what they do

Bristol

Based here you'll find yourself working on projects primarily in the civil nuclear industry. Our work is wide ranging and includes:

- maintenance and life extension of the UK nuclear fleet as part of the Technical Support Alliance for EDF Energy Nuclear Generation;
- new build projects supporting work at Hinkley Point C (HPC) and International Thermonuclear Experimental Reactor (ITER);
- decommissioning projects including support to the Magnox fleet; and to other clients such as HMNB Devonport and AWE.

We are looking for candidates from a Mechanical Engineering or mechanically focussed background. In the Bristol office you could work in one of the following groups:

Plant Systems and Safety

The Plant Systems and Safety group supports clients with the changes to design and operation of nuclear power plant mechanical systems. The work is focused primarily on the currently operating nuclear power plants in the UK, with secondment opportunities available to work at client sites, within offices or at station. The group have a close working relationship with our clients, and you will have the opportunity engage with our clients from the start of your career. Technically, our work is broad but can include: safety case development, engineering design and substantiation, hazard assessment and project management. Everything we do centres around a safety conscious approach to work, requiring an attention to detail and methodical work process. We learn to apply a questioning attitude to all aspects of work which is facilitated by an inclusive and supportive culture within our team.

Design and Analysis

The Design and Analysis group specialises in novel design, substantiation and integrity assessment of systems in a wide range of temperatures and environmental conditions, often pushing the boundaries of current assessment techniques to achieve life extension of critical infrastructure. Our team has core capabilities in mechanical analysis, mechanical design, materials & corrosion, and automation & tool development. Project work is predominantly nuclear focussed but there are also opportunities to undertake technical work within our wider energy portfolio such as conventional power and Net Zero. The constant in our work is the challenging nature of the jobs and the chance to provide innovative solutions to a range of problems for our clients.

Reactor Decommissioning

The Reactor Decommission group works across numerous plant areas, each with different technical challenges, but with a focus on nuclear decommissioning and waste management. Project work can include design and assessment of Intermediate Level Waste (ILW) and Low Level Waste (LLW) retrieval and processing techniques, packaging of waste for transportation and long-term storage, assessment of existing plant and support to the planning and infrastructure required for decommissioning. You'll be expected to help define the problem, identify an appropriate methodology (utilising both traditional and latest digital technologies), and justify the optimum solution.

Building Design

The Building Design group is primarily set up to deliver multi-disciplinary packages of work on key facilities, systems and components across the full spectrum of Nuclear Power Stations. Mechanical roles within the group relate to the design, analysis and assessment of Heating, Ventilation and Air Conditioning (HVAC) systems and Mechanical Process systems. These can be stand-alone technical tasks or part of large multi-disciplinary projects. Our work is varied and can involve working both in a specialised mechanical capacity as well as across and alongside other engineering discipline.

New Nuclear Technologies

The New Nuclear Technologies business focusses on the next wave of nuclear reactors comprising small modular reactors, advanced modular reactors and nuclear fusion. We support our clients in the UK and central Europe providing the full range of engineering design, consultancy and project management services enabling advancement of these new technologies to help power the world for future generations. We have a broad range of roles, including engineering design and substantiation, hazard assessment and project management, all with opportunities for complex problem solving and analytical thinking. Within this, we are looking for candidates with a scientific background and have studied Physics, Chemistry, Engineering, or have completed further study in Nuclear or Nuclear Engineering. Our current portfolio of work includes the International Thermonuclear Experimental Reactor (ITER) based in the south of France, the UK Atomic Energy Authority (UKAEA) (including their Spherical Tokamak for Energy Production (STEP) Programme) and the Rolls Royce Small Modular Reactor (SMR) programme. We also provide engineering services to a range of private fusion and advanced modular reactor vendors.

Derby

The depth of projects in the Derby office spans a vast range of clients. These clients cover a wide variety of high profile and vital projects across the United Kingdom. You could find yourself designing submarine propulsion systems and dockyard infrastructure support or specialised nuclear handling equipment and blast doors for a new defence facility. There are also many projects involved within the Civil Nuclear sector supporting the construction and decommissioning of commercial nuclear plants, these projects provide the opportunity to deliver safety critical equipment or technical expertise as well as providing the possibility of developing into project management roles.

The breadth of projects means we have a broad range of roles at various stages of the project life cycle. This covers the technical roles where we have individuals embedded within a client team working with them on a day-to-day basis to provide technical support and long-term project delivery to other roles where the expertise is delivered from afar allowing for a flexible working pattern. You could also find yourself working at the other end of the project cycle with positions within project bids through to project management or even decommissioning work. All these project roles would require a candidate with the ability to apply their understanding of engineering principles to resolve issues and deliver work packages as well as having the initiative to learn new systems and develop their knowledge whilst always considering safety requirements/implications.

Whilst engaging with clients and delivering vital work, your professional development as an engineer will always be a high priority within the office. You'll be provided with extensive training opportunities as well as given the chance to develop key competencies required for chartership whilst providing the flexibility for you to experience a wide range of roles and disciplines.

Epsom

Based in our brand-new office; the Mechanical Group contains a mix of experience spread across high profile clients and a particularly diverse workstream, in many sectors such as Nuclear New Build, Defence, Nuclear Generation, New Technologies and Nuclear Fusion. As a discipline, we pride ourselves on having a presence in client organizations to resolve technical and project issues at the forefront, whether that be as System / Architect Engineers or as a Technical Authority, whilst also delivering packaged works remotely from our head office. This ensures that we continue to grow our capability and influence in the industry whilst also providing the Mechanical Group (and you!) with even

more opportunities to develop as Professional Engineers. We're looking for applicants with a genuine interest in the UK nuclear industry, and a desire to drive their own career by building a diverse network both within Atkins and with our clients. We look forward to meeting you!

Scotland (Glasgow/Edinburgh)

You'll find yourself working primarily on projects in energy systems assets market. Our portfolio of projects encompasses asset integrity, design and assurance for a variety of clients across a broad spectrum of facilities ranging from district heating, biomass, gas and Combined Heat & Power networks to large scale generation plant, gas and oil storage and decentralised energy assets. The broad nature of the energy systems assets project portfolio means you will be working on a variety of projects ranging from large interdisciplinary design and construction projects to supporting clients with discipline specific technical advice. The teams and projects you will be working with are at the core of the company's long terms focus on diverse, clean power generation and have an emphasis on achieving net zero, your work will be an important part of this.

Accountabilities will include performing engineering calculations to support design and assess systems, performing stress analysis of plant equipment, carrying out site surveys, and producing technical reports. There is the potential for significant time spent on site engaging with clients, inspecting plant, and deploying a range of cutting edge digital tools to capture site information.

We're looking for candidates who have a keen interest in structural & mechanical design and analysis, pressure and pipework systems or rotating equipment working across all of the various energy sectors with a Mechanical Engineering degree or an integrated Mechanical and Electrical Engineering degree.

A desire to learn and develop your technical understanding to apply mechanical engineering concepts to provide solutions to our client's complex problems is key. Being a committed and trustworthy team player with integrity, exhibiting a desire to ensure quality and do the right thing, is essential to maintaining our client relationships and strong company reputation. In return you will have the opportunity to be involved in projects at the forefront of the Net Zero energy transition, deploying cutting edge digital tools and technology solutions that will keep you developing skills that ensure you will have a fulfilled and relevant career.

Sheffield

Based in our brand-new city centre office in Sheffield, our Mechanical Design team develops solutions to advanced mechanical handling problems, and provides mechanical engineering expertise to clients across multiple industries. The team enjoys a particularly diverse work stream, working across many sectors such as Nuclear Generation, Defence, Nuclear Decommissioning, Nuclear New Build, Transportation, Water, Offshore and more.

Day-to-day you can expect to work collaboratively with a supportive international team, based both in our own office as well as client sites. As a graduate engineer in this team, you will develop design specifications, produce design and substantiation calculations, and write technical reports underpinning our design solutions. Throughout your project work you will apply your technical skills and knowledge to develop innovative designs and solutions.

Whitehaven

You'll be part of a forward thinking, highly innovative Mechanical team working at the cutting edge of digital design and pushing the standard norms of how engineering projects are delivered in the 21st Century. Working on some of the most complex and challenging decommissioning projects within the Nuclear industry from initial concept through to detailed design and delivery, you will find the work diverse, immersive and ultimately very rewarding. The ideal candidate will have an interest in static and dynamic mechanical loading and have a real passion for 3D digital innovation and 3D modelling with a vision for how this can shape the future of engineering.

For Whitehaven, we are looking for candidates who have specific experience in mechatronics or robotics only. Please only apply if this is the case.

Locations for this business will include:

Bristol
Derby
Edinburgh
Epsom
Glasgow
Sheffield
Whitehaven

To apply, please return to the main job specification