

Job Description Mechanical Design Engineer

Date: 04/07/2017

The Project:

Design and development of the Stable Salt Reactor, a simpler form of molten salt reactor using conventional reactor components. The design is at concept stage and is undergoing review by the Canadian nuclear regulators. The sole aim is to produce power at a lower cost than by fossil fuels. You will be joining a small team based with activity across the UK and Canada.

The Role:

You will be responsible for the design of various components of the reactor. You will be carrying out FEA and thermal hydraulic simulations all elements of the thermal hydraulics of the plant. You will run heat transfer models across heat exchangers, boiler tubes, coolant tanks, reactor core and air cooling ducts. Operating and accident scenarios will be modelled including some component optimisation. A primary output will be the thermal stresses on various components to lead on to their mechanical analysis.

A knowledge of finite element analysis and mechanical failure modes is beneficial to assess individual components.

You will report to the lead mechanical engineer. Travel across the UK and abroad may be required.

Experience Required:

5 years working with Computational Fluid Dynamics and or Finite Element Analysis tools

Skills Required:

-High level of proficiency with Autodesk Inventor and a good knowledge of CFD and FEA packages.

-You will need to be proficient in English with good communication skills.

Beneficial Skills:

-FEA experience

-Knowledge of the nuclear sector and neutronics

Duration:

Permanent, full time.

Remuneration:

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