

## Job Description

### Nuclear Safety Case Engineer

Date: 14/11/2017

#### **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:**

To prepare safety case documentation for the Stable Salt Reactor for the Canadian Vendor Design Review. Topics will be varied and the candidate will have a broad understanding of reactor designs and regulatory requirements. There will be close involvement with the engineering teams and you will be involved in design decisions that relate to safety. The ideal candidate will have had design responsibilities in a nuclear plant design with ownership of the safety case preparation for their part of the design.

The position can be based in Toronto or London. International and national travel will be part of the role. It is expected that the role will need to be positioned in Toronto in the medium term.

Typical documents you will be expected to produce will include the following:

- Hazard/fault identification studies e.g. HAZOP, FMEA, etc;
- Qualitative and Quantitative Hazard Assessments;
- Radiological Hazard Assessments;
- Probabilistic Safety Assessments;
- Safety Case preparation (e.g. EC, PMP, PSR, PCSR, etc);
- Support to Engineering Substantiation studies;
- Safety management studies.
- Nuclear technology technical reports.
- Fault studies

You will also liaise with operators, designers and clients, building a strong relationship with them.

#### **The Person:**

You must share the same values as the Moltex team which have a dedication to developing a safe solution to producing clean power at a cost competitive with fossil fuels. You must be open to innovation and new ways of doing things in a stagnant industry. In addition to having excellent communication, presentation and problem solving skills you will also be able to demonstrate the following:

- Honours Degree (or equivalent) in a relevant engineering discipline (2:1 minimum).
- Chartered (or Professional) Engineer or in advanced stages of working towards chartership.

- Technical practitioner able to demonstrate good engineering judgement and with extensive experience in using fundamental engineering skills.
- Proven record of delivering technically challenging projects.
- Strong background in safety case production and hazard analysis
- Knowledge of nuclear regulatory requirements and the nuclear culture (CNSC preferred but ONR experience is suitable).
- Able to produce and review/correct high quality technical reports.
- Motivated and driven to meet delivery/cost targets without compromising quality.
- Awareness of their own technical limitations, and using the help and support of others to deliver.
- Sound commercial acumen.

**Experience Required:**

5-10 years working with civil nuclear consultants, nuclear reactor vendors or nuclear reactor developers preparing nuclear power plant safety cases. Involvement in nuclear engineering design is beneficial.

**Duration:**

Permanent, full time.

**Remuneration:**

Competitive.