



Moltex Energy Job Description

Job title: Nuclear Physicist

Job location: Warwickshire, United Kingdom

Job purpose:

Nuclear physics subject matter expert for Moltex Energy's Stable Salt Reactors (SSRs)

Responsibilities:

Development and maintenance of the nuclear physics models and simulations to substantiate the safe operation of the suite of SSRs.

Duties and tasks:

Developing models and simulations inclusive of steady state, transient, and design-based accident conditions.

- Identifying the most appropriate codes for development of the nuclear physics models and simulations.
- Coupling of nuclear physics simulations to CFD simulations to accurately model core performance.
- Technical leadership including specification of nuclear physics R&D activities to confirm models and simulations.
- Working with and building relationships with industry and academic experts to maximise input of existing knowledge and expertise into the nuclear physics models and simulation, and other R&D activities.
- Presentation and substantiation of nuclear physics to regulatory bodies and to other stakeholders.

Skills, qualifications and experience:

Relevant nuclear physics knowledge is essential to this role. In terms of experience there is greater flexibility. We will consider a wide range of relevant experience for the role and will tailor the support and mentoring that is provided to the individual job holder accordingly.

Essential:

- Higher degree in nuclear physics.
- Good knowledge and practical experience of fast nuclear reactor physics modelling and simulation.

Desirable:

- Experience in reactor physics modelling and simulation for a wide variety of reactor designs, including Gen IV and other novel approaches



- Coupling of nuclear physics and molten salt CFD models and simulations.

Behavioural skills and personality:

The company's mission is to bring SSRs to market as quickly as possible. To achieve this the role holder will need to be:

- Ambitious to become an industry recognised leader in SSR nuclear physics.
- Delivery focused as well as being technically strong.
- An excellent team worker who will integrate well with other parts of the engineering and design team to ensure progress of reactor designs as a whole as well the nuclear physics elements.
- A highly effective communicator who can explain, debate, and justify the SSR nuclear physics to a range of stakeholders with differing technical knowledge both orally and in writing.
- Strong problem-solving skills with the ability and initiative to originate solutions and/or adapt and develop other's ideas.
- An adaptable individual who will be comfortable in a rapidly growing and changing company.

Remuneration:

Negotiable based on experience.