

## System Engineer

<b>Location:</b>	Bristol – Travel Required
<b>Salary:</b>	Competitive
<b>Hours:</b>	40 hours per week
<b>Contract:</b>	9 months PAYE Fixed Term Contract

The Ortec Group offers a high value-added engineering service. Founded on the expertise of engineers and technicians, combining knowledge of industrial sectors, field culture with more than 30 years' experience, Ortec Engineering is 40 agencies in France, a presence on four continents and two offshore production centres.

Design engineering provides a varied foundation of complementary skills to meet a broad range of traditional technical engineering needs. To facilitate discussions and to be more responsive and available, the Ortec Group has chosen local offices: located as close as possible to our customers, they bring together all the trades involved in a given project in one place.

### The role:

As part of the expansion of our Engineering and Projects activities, we are recruiting Engineers to support us in our growth in the Nuclear Energy sector. We are looking for Engineers who have experience in the nuclear sector, either within the generation fleet, EPR nuclear new build (Olkiluoto, Flamanville, Taishan or Hinkley Point C) or other relevant nuclear site (Sellafield, ITER...)

Sonovision will provide a Training program based on ORTEC experiences in French Nuclear engineering if required.

### Key Tasks and Responsibilities:

**Reporting to the Business Unit Manager, fulfil the role identified below**

System design and system integration into overall HPC design:

- Produce, Review and update the system documentation for the mechanical and thermo-hydraulic design, electrical, operator instructions, human machine interface, safety and environmental, control logic design, as well as periodic testing in compliance with the engineering rules, methodologies, quality processes, and tools
- Particularly for Instrumentation and Control, performing the analysis for defining the Instrumentation and Control (I&C) Functional Requirements of the system and production of the I&C logic :
  - Defining the I&C Functional Requirements
  - Drafting Detailed Functional Diagram
  - Writing of the Functional Test Procedure
  - Testing the I&C logic and feeding results back into specification
  - Definition and description of human machine interface (alarm sheets, operating images, operating procedures)
- Particularly for mechanical design:
  - Sizing of components e.g. pumps, pipework, pressure relief valves, tanks etc.
  - Perform thermal-hydraulic calculation and modelling with in house or commercial tools
  - Ensuring the 3D model is consistent with the intended system design
  - Formulate equipment specification and provide the data in respective database or data sheet

- Support to procurement team in formulation of technical specification for contract documentation
- Support to procurement team in technical surveillance of supplier documentation
- Analysis and verification of input data, requirements, and lessons learnt from other stations
- Engage proactively with all stakeholders around the system in advance to ensure the delivery of a product meeting the requirements set by all disciplines (layout, civil, hazard, nuclear safety, environment, configuration management, procurement ...)
- Contribute to topics around good practises, innovation, improvement of processes, and quality
- Participate in experience sharing activities within the discipline

Management of configuration related to the system including:

- Managing requests for modifications to system(s) issued by various external parties by producing specifications and following engineering cycle (I&C and/or mechanical design changes specifications)
- Analysis and verification of the applicability of these modifications and challenging them as appropriate (support design stability approach)
- Developing technical solutions and presenting them to internal or external stakeholders / the client to help resolve technical issues (technico-economic optimisation approach)
- Utilising the electronic databases supporting configuration management

Support handovers to detailed designers or customers:

- Liaising with other stakeholders through participation at kick off meetings, gate reviews etc relevant to the system.
- Producing and updating process diagrams with all relevant design changes for handovers with detailed designers

## The right candidate will have the following skills and background:

Essential:

- Mechanical or Process Engineering degree or equivalent qualification
- 4+ years' experience of process engineering
- Relevant experience in nuclear industry
- Working knowledge of fluid mechanics, heat transfer and thermodynamics
- Knowledge of Instrumentation and Control design
- Experience of producing design documentation and test specifications

Desirable:

- Knowledge of EPR system design principles, Instrumentation and Control architecture and Safety Classification
- Experience of working on an operating nuclear plant or on an industrial site
- Knowledge of UK licensing requirements and its application within the HPC project
- Ability to speak and write technical documents in French

## Screening:

- Do you have minimum 4+ years' experience of process engineering?
- Do you have a degree in Mechanical or Process Engineering?
- Do you have knowledge of fluid mechanics, heat transfer and thermodynamics?
- Do you have knowledge of Instrumentation and Control design?
- Are you eligible to live and work in the UK, with a valid Passport?

If you are interested in joining our team, send your CV to:

**Karen Angel**

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