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HSE consultant

20+ years' experience

Profile

- Trained to work in highly regulated sectors (nuclear and heavy industry)
- Involved in numerous projects in France and abroad (Canada, Belgium, UK and Finland)
- Used to multicultural environments
- Ready for relocation worldwide

Skills

- Occupational health and safety
- Environment, effluent and waste management
- Risk assessment / safety case
- Quality assurance / quality control
- Management systems
- Teaching / training (university and industry)

Situation

- French citizenship
- 45 years old
- Single

Languages

- French: fluent
- English: fluent
- Italian: intermediate

Qualifications

- **Master's degree "Radiopathology – Radioprotection"**, Joseph Fourier University, Grenoble (France)
  Main field of study: Health physics, radiation protection

- **Master's degree "Industrial safety and hygiene"**, University of Quebec, Trois-Rivières (Canada)
  Main field of study: Occupational health and safety, protection of the environment

- **Engineering degree "Prevention of industrial risks – Hygiene, safety, environment"**, Polytech, Grenoble (France)
  Main field of study: Occupational health and safety, protection of the environment, quality management

- **Technical certificate "CFPA Europe"**, National Centre for Prevention and Prevision, Vernon (France)
  Main field of study: Fire protection, fire regulations and standards

- **Bachelor's degree "Sciences of the structures and matter"**, Joseph Fourier University, Grenoble (France)
  Main field of study: Mathematics, physics, chemistry, computer science

Overview of HSE-related experience

(more references also available specifically in radiation protection and nuclear safety)

Technical assistance for the commissioning of a new nuclear power plant, AREVA NP, Olkiluoto (Finland)

- **Incident management:** overhaul of the unexpected event management process (simplification, optimization, efficiency and response time), investigation and assessment of unexpected events (commissioning, operation, maintenance) and proposal for corrective actions, follow-up of corrective actions implementation in the field, overall assessment of events and definition of priorities, identification of root causes and proposal for preventive actions, dissemination of lessons learned in the supplier's teams and their contractors
- **Safety culture:** collection and processing of weak signals (events and near-misses, deviations, violations of procedures, shortcuts…), promotion of the periodic safety culture survey among the plant owner, the supplier and the contractors, assessment of the safety culture survey results and proposal for corrective action plan with priorities (roles and responsibilities, communication, procedure adherence, training…), presentation of the safety culture survey results to the contractors
- **Organization and management:** writing and negotiation of a core procedure for the organization of the nuclear safety integrated team (plant supplier + plant owner) (organization charts, roles and responsibilities, allocation of tasks, skills requirements…), optimization of the meetings within the nuclear safety team (attendants and back-ups, guidelines…), update of the bar-chart for open positions and budget, writing of requisition files to recruit new team members, review of operational procedures (lock-out / tag-out, permit to work, permit to test, fault notifications…), participation to workshops to simplify and optimize processes
- **Oversight:** writing of an inspection procedure, participation in focused inspections in the field in conjunction with HSE and site management, root cause analysis about rules enforcement and sanctions policy
- **HSE:** participation to the weekly HSE meetings, close collaboration for common topics (lock-out / tag-out, fire protection, chemicals, events reporting, collection and sharing of weak signals…), nuclear safety training of HSE officers
- **Radiation protection (RP):** close collaboration for common topics (radiological zoning, reporting of events to authorities)
- **Foreign material exclusion (FME):** assessment of issues based on external audits, event reports, staff interviews and walkdowns in the field, proposal for a remedial plan before the first fuel loading, nuclear safety training of FME officers
- **Training:** design, organization and performance of tailor-made training modules (nuclear safety, technical specifications), feedback on existing training modules (HSE and RP inductions, nuclear professionalism, human performance tools, foreign material exclusion, confined space…), review of the training strategy and proposal for improvements
- **Communication:** writing of a nuclear safety joint statement ("policy") for the OL3 project, writing of safety messages, various presentations in technical and project meetings, active involvement in the "Safety Day" activities on the site

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Technical assistance for the overhaul of the emergency preparedness plan, EDF, Tricastin (France)

- Writing of all organizational and operational documents, and update of conventions with third parties
- Justification of the sizing and operability of the emergency plans
- Definition and justification of the trigger criteria leading to the launching of the emergency plans
- Definition of the maintenance requirements of the emergency equipment, and writing of associated records
- Definition of the training theoretical and practical requirements, and writing of training materials and final knowledge tests
- Writing of the regulatory file aimed at the authorities

Technical assistance for the national nuclear safety authority, FANC, Brussels (Belgium)

- Quality self-assessment of the Agency (operational experience feedback and safety culture processes)
- Writing of the federal safety and environmental policy applying to the decommissioning of nuclear facilities
- Writing of a national information file to the public about the radioactive effluent releases of the nuclear facilities

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Fire hazard analysis in nuclear power plants, Tractebel Engineering, Brussels (Belgium)

- Review and amendment of the fire hazard analysis methodology
- Identification of the important safety and control systems to be protected from fire
- Review and qualification of a newly developed software simulating fire propagation in the nuclear buildings

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Ten-yearly risk assessment of a nuclear facility, EDF, Tricastin (France)

- Inventory of the facility as built and assessment of the compliance with applicable regulatory requirements
- Writing of technical documents related to risk analyses (fire protection, lightning protection…), protection of the environment (waste management, decommissioning plan…), operational experience feedback, and quality indicators (operating events, non-conformities…)

Evaluation of a risk analysis report for the dismantling of a nuclear facility, IRSN, Avignon (France)

- Assessment of the operator's technical studies, reports and calculation sheets
- Improvement of the initial project including further safety requirements with respect to occupational risks (fire / explosion, chemical interaction, heavy handling, coactivity…), waste and effluents management, and emergency planning

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ISO 14001 environmental analysis of a radioactive dismantling project, EDF, Chinon (France)

- Inventory and evaluation of the applicable legal and other requirements
- Analysis of the inflows and outflows
- Identification of environmental aspects and evaluation of associated environmental impacts
- Control of the significant environmental aspects to reduce their potential environmental impact

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Quality management of internal processes of a nuclear contractor, AREVA STMI, Cadarache (France)

- Writing of specific quality assurance plans for selected processes
- Creation and implementation of a companionship training program for all newly appointed staff in positions important for health & safety, environment and quality
- Update of operation and maintenance procedures of production equipment
- Inventory and follow-up of all contractual commitments to the final customer
- Preparation of contractual audits and contractual meetings with the final customer
- Writing of a template for generic terms of reference aimed at suppliers and subcontractors

Occupational health & safety risk analysis of a radioactive dismantling project, EDF, Creys (France)

- Review of the planned activities: plasma / acetylene cutting, heavy handling, work at height…
- Assessment of the risks involved by the initial project: fire / explosion, load drop, fall from height, toxic gases, lead, asbestos, noise, electrical, on-site traffic…
- Amendment of the initial project and definition of safety requirements for the protection of the operators

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Supervision of 12 radiation protection officers in a nuclear research centre, CEA, Cadarache (France)

- Daily management of personnel and workload according to the operators' priorities and constraints
- Supervision of on-going activities on the field and technical assistance whenever required
- Radiation protection training of the operators' staff

Quality management in a nuclear research facility, CEA, Cadarache (France)

- Creation of the quality action plan and the quality indicators
- Treatment and follow-up of non-conformities
- Check of the adequacy between the safety-related positions requirements and the competencies of the staff, and implementation of a training action plan where needed

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ISO 14001 certification in an electrical switchboard production plant, Merlin Gerin, Montmélian (France)

- Writing of the environmental analysis of the plant and its logistics and dispatch centre
- Writing of the environmental management program (objectives and targets, action plan)
- Writing of the environmental management system (manual, procedures and records) including environmental policy, organization and responsibilities
- Briefing of the management and training of the whole personnel of the site

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Environmental improvement study in a silicon carbide production plant, Norton Ltd, Shawinigan (Canada)

- Analysis of the whole fabrication process and support activities (maintenance, logistics, storages…)
- Identification of the sources of re-suspension of coal and sand dust at the origin of atmospheric releases
- Proposal of technical, organizational and human improvement actions to reduce the impact of the plant
- Proposal of an action plan including target deadlines and budget

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Review of the internal emergency plan of an aluminum production plant, Pechiney, Bécancour (Canada)

- Review of the documentation and comparison with the existing material provisions and current organization
- Identification of gaps and update of the emergency plan where needed

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Review of the health & safety training modules in a chemical plant, Rhône-Poulenc, Roussillon (France)

- Audition of all trainers in action and listing of the areas for improvement
- Amendment of the existing training module to increase the quality and efficiency of the training sessions
- Briefing of the trainers

Additional teaching / training experience in QHSE-related disciplines

Modules taught at the university (program dedicated to future HSE officers) or in the workplace (local staff and contractors)

Management of industrial risks

- Interests to invest in prevention: legal necessity, direct and hidden costs of accidents and occupational diseases, absenteeism, turnover, strikes, corporate image…
- Role, responsibilities, duties and constraints of the HSE coordinator
- Management program: leadership, policies, objectives, organization, procedures, action plan, controls
- Safety activities and tools: tasks analysis, training, pre-job meetings, coactivity management, safety audits, safety regulations, fire permit, emergency preparedness, accident investigation and analysis, accident statistics…
- Evaluation of the management program

Management of the environment according to ISO 14001

- Environmental analysis: identification of aspects and evaluation of impacts, legal and other requirements…
- Environmental management program: environmental objectives and targets, action plan
- Environmental management system: requirements, organization, manual, procedures, records…

Risk analysis and risk management

- Risk analysis: identification of hazards (chemical, electrical…) and evaluation of risks (gravity vs. probability)
- Risk management: control (prevention measures) and management (detection and mitigation measures)

Accident investigation and analysis

- Investigation: collection of facts, interviews of witnesses…
- Analysis: identification of causes, construction of fault tree…

Radiation protection

- Radioactivity, physical units, interactions of radiations, biological effects
- Protection against irradiation: source activity, exposure time, distance, shielding
- Protection against contamination: static and dynamic containment of radioactive substances, personal protective equipment
- What to do in case of accident

Protection against conventional occupational risks

- Risks of accidents: chemical substances, electrical sources, circulation, work at height, handling equipment…
- Risks of occupational disease: chemical substances, asbestos, silica, repetitive gestures, vibrations, noise…
- Potential biological effects: heart attack, lung cancer, induced deafness…
- Regulatory basis: requirements, limits…
- Usual safety measures: exposure time limitations, collective shielding, personal protective equipment…