Elettra Sincrotrone Trieste

Radiation Protection Manager

Deadline: 4 January 2021
Ref: EA/20/43

Company description

Elettra Sincrotrone Trieste is an international multidisciplinary research center operated as a user facility, featuring a 2.0/2.4 GeV, third-generation synchrotron light source (Elettra), a new free-electron laser light source (FERMI) and a variety of support laboratories. The extremely high quality of the machines and beamlines has set new performance records and has been producing results of great scientific and technological interest. See http://www.elettra.eu for more information.

Beamline/Activity/Project description

In order to allow the laboratory to remain competitive in the next 20 years, an entirely new source - Elettra 2.0 - belonging to the new generation of storage rings (DLSR or Diffraction Limited Storage Ring) is being developed. The new source will exhibit a major increase in the brilliance and coherence fraction of the photon beams. The Elettra 2.0 optics is based on our enhanced symmetric six bend achromat structure (S6BA-E) with a 12-fold symmetry and an emittance of 200 pm-rad at 2.4 GeV. The new structure creates also straight sections in the arcs permitting the installation of additional insertion devices, thus increasing the number of beamlines. Existing beamlines will have to be upgraded and new beamlines developed to take full advantage of the characteristics of Elettra 2.0. Additionally, three in-vacuum undulators and two high-field superbends are considered. The new machine is scheduled for commissioning in the second half of 2026.

Job description

The Radiation Protection team of Elettra is in charge of a number of duties ranging from personnel risk evaluation to environmental radiation monitoring and shielding calculation, as well as design and implementation of personnel safety systems.

The successful candidate will manage the activities of the Radiation Protection team for Elettra and FERMI and for the implementation of the new Elettra 2.0 source. The Radiation Protection team has diversified tasks: to support the Radiation protection expert, as foreseen by Italian legislative decree n. 101/2020, evaluate radiological shielding, perform spectrometric analyses of activated materials, evaluate removal and decommissioning of components and instrumentation exposed to radiation, analyse safety aspects and contribute to the design of personnel protection systems, prepare the paperwork required to receive operational authorization from the national environmental protection agencies.

Qualifications

A Master degree in physics or nuclear engineering is required. A PhD in Radiation Protection, Nuclear or Medical Physics would be considered a plus. Several years of experience in radiation protection for high-energy accelerators, gained at international and/or national research centers is expected, together with documented experience in the management of technical and scientific staff. The successful candidate will have demonstrated important leadership skills, the ability of rapidly assessing risks and opportunities, working effectively under pressure and meeting deadlines.

Proven experience in the following topics is expected:

- shielding calculations,
- FLUKA Monte Carlo simulation code,
- design and implementation of Personnel Safety Systems,
- spectrometry and activated materials clearance.

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Accreditation as "Expert in Radiation Protection" according to the Italian legislative decree n. 101/2020 or other National laws in matter of Radiation Protection would be considered a plus.

Good oral and written communication skills in English and Italian are essential.

The type of contract, duration, level and remuneration will depend on the qualifications of the selected candidate.

Applications should include full curriculum vitae signed by the applicant (preferably using the European Curriculum Vitae Format in PDF), with the names and contact information (including electronic mail) of at least two professional references.

Due to the situation related to the COVID-19 virus, the interviews will be performed through video conferencing.

The deadline for the submission of the application is January 4, 2021.

In accordance with the provisions of article 21 of the Italian legislative decree no. 39/2013 and in conjunction with article 53 (subsection16ter) of Italian legislative decree no. 165/2001, employees or former employees of any Italian Public Entity who have exercised authority over Elettra Sincrotrone Trieste S.C.p.A. or have negotiated with Elettra - Sincrotrone Trieste S.C.p.A. within the last three years will be excluded from the present selection procedure.

We thank all applicants in advance.
For more information, please contact Alessandro Vascotto (email: alessandro.vascotto@elettra.eu).

To apply for this position please visit the following link:
https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=1641