

ETH zürich

Professor of Nuclear Safety

ETH zürich

PAUL SCHERRER INSTITUT
PSI

→ The Department of Mechanical and Process Engineering (www.mavt.ethz.ch) at ETH Zurich and the Laboratory for Reactor Physics and Thermal Hydraulics at the Paul Scherrer Institute (PSI), Villigen (www.psi.ch) invite applications for a joint professorship in Nuclear Safety.

→ The new professor will lead, in a joint appointment with ETH Zurich, a research group for thermal fluid dynamics experiments and simulation at PSI, Switzerland's nuclear centre of excellence, and will thus benefit from the access to the institute's unique large-scale experimental facilities and analytical infrastructures. He or she should demonstrate an excellent international record of research accomplishments in the field of nuclear engineering and reactor safety, preferably with a focus on thermal fluid dynamics and/or heat and mass transfer. Experience in the related fields of reactor physics and nuclear materials, safety aspects of the decommissioning of nuclear power plants and waste conditioning and disposal technologies or similar, are very welcome.

→ The successful candidate is expected to establish an ambitious, world-class research programme at the interface between fundamental research and application, in particular related to the core areas of nuclear reactor safety. Specific focus of the research will be centred around experimental thermal fluid dynamics and advanced instrumentation combined with computational methods in order to address scientific issues related (but not limited) to multi-scale thermal-hydraulics phenomena, multi-physics simulations, code validation with uncertainty analysis, as well as applications to reactor/fuel design, accident analyses and spent fuel management.

→ The new professor should hold a Ph.D. or similar degree in nuclear engineering, mechanical engineering, process engineering, or a related field. A strong motivation and undisputable commitment to student education is a prerequisite. The candidate will be in charge of the coordination of the joint Nuclear Master Program between ETH Zurich and EPF Lausanne and will be expected to teach undergraduate level courses (German or English) and graduate level courses (in English). Additional support by teaching assignments of senior scientists, in the supervision of master projects and access to research infrastructure is granted by PSI.

→ **Please apply online: www.facultyaffairs.ethz.ch**

→ Applications should include a curriculum vitae, a list of publications and projects, a statement of future research and teaching interests, and a description of the three most important achievements. The letter of application should be addressed **to the President of ETH Zurich, Prof. Dr. Joël Mesot. Submissions will be reviewed starting on 31 July 2019, but applications are welcome until the position is filled.** ETH Zurich is an equal opportunity and family friendly employer and is responsive to the needs of dual career couples. We specifically encourage women to apply.

industrial strategy and record level of government investment in R&D."

The technical program to deliver the americium generator has been running for several years and is supported by funding from the British government's Department for Business, Energy, and Industrial Strategy through the United Kingdom Space Agency and its ongoing participation in European Space Agency (ESA) programs. Essential contributions to the project, NNL noted, came from European Thermodynamics, which helped develop the thermoelectric generator unit, and the Nuclear Decommissioning Authority, which permitted the use of plutonium from the U.K. stockpile.

Tim Tinsley, NNL's account director for the work, said, "Seeing this light bulb lit is the culmination of a huge amount of specialist technical work carried out by the teams from NNL and Leicester, working in collaboration with other organizations such as ESA and UK Space Agency. Leicester University's capability in development of the radioisotope power systems was complemented by NNL's expertise in handling and processing americium in our unique lab facilities. It is great to think that americium can be used in this way, recycling something that is a waste from one industry into a significant asset in another."

A NNL video marking the breakthrough can be viewed at <<https://youtu.be/a3wqv27fr4>>.

ENFORCEMENT

NRC issues confirmatory order to Idaho State

The Nuclear Regulatory Commission announced on May 3 that it has issued a confirmatory order to Idaho State University for an incident involving radioactive material. The NRC decided not to issue a notice of violation or civil penalty to ISU, as the university has taken "significant corrective actions." Under the terms of the order, the university has agreed to improve its handling of radioactive materials as identified by a third-party auditor.

The confirmatory order is the result of the NRC's alternative dispute resolution process, which was requested by the university to address violations identified by the NRC in a January 10, 2019, inspection report. The NRC identified one apparent violation considered for escalated enforcement involving the failure to secure two portable gauges containing radioactive material to prevent unauthorized access or removal. ISU has agreed to a series of actions designed to improve its processes and procedures for the use of radioactive materials, according to the NRC. **NN**