ETSON JSP Summer Workshop 2014

The 2014 Summer Workshop of the Junior Staff Programme of the European Technical Safety Organisation Network (ETSON) is organized by VTT Technical Research Centre of Finland. The workshop takes place on the 25th – 29th of August 2014 at Espoo, Finland.

The topic of the 2014 Summer Workshop is FUEL MANAGEMENT, covering the nuclear fuel cycle from mining and fabrication to usage and storage. The workshop is aimed at young professionals from ETSON member organizations.

The programme of the workshop consists of lectures prepared by the participants themselves, and a technical visit to the TVO and Posiva sites in Olkiluoto, Finland.

Information about the workshop is available at the workshop website,


Venue and accommodation

The workshop takes place at the Auditorium of the Geological Survey of Finland, located at Betonimiehenkuja 4, Espoo.

The participants are encouraged to book a room at the Radisson Blu Espoo hotel. For information on how to reserve the room and how to reach to hotel from Helsinki airport, please visit the workshop website.

On Sunday, 24th of August, VTT is pleased to welcome all the participants to the workshop with an ice-breaker at 19:00.
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**9:00 – 10:00**

- Welcome speech (VTT director, 20 min)
- General presentations VTT:
  - ETSON Presentation (M. Prévoit, 15 min)
  - General presentation of NRA (M. Ishii, 15 min)
- General presentation of CVR (B. Miglierini 10 min)
- Radiolysis and thermolysis issues for the transport of radioactive materials (P. Xidy, 30 min)
- Transport in Belgium Transport on site (J. Depuydt 20 min)
- General presentation of GRS (Aziz, 10 min)

**10:00**

- Coffee break

**10:30 – 12:30**

- Front end of the fuel cycle:
  - Mining and Conversion (M. Wehrfritz, 60 min)
  - Chemistry of UF6 and Enrichment (C. Lecarme, 60 min)
  - RBMK Fuel transportation from Unit1 to Unit2 (T. Kaliatka 30 min.)
  - General presentation about fuel modelling. (T. Ikonen, 20 min.)
  - Fuel modelling (T. Ikonen, 20 min.)
  - Mechanical testing of nuclear materials, cladding creep experiments (S. Huotilainen, 20 min.)
  - Fast Reactor Fuel Management (M. Vanderhaegen, 20 min.)
  - Spent fuel storage "CASTOR containers" (V. Dolecek, 20 min)

**12:30**

- Lunch

**13:30 – 15:00**

- Approaches to the new fuel licensing in Ukraine (R. Serafyn, 40 min)
- SEC NRS general presentation (G. Arbæa, 10 min)
- Safety issues in nuclear fuel fabrication (S. Shiyanov 40 min)
- General presentation SUJR (T. Markova, 10 min)
- T-H analysis of VVER 440 fuel during normal operation (or during DBA conditions) done by RELAPS code. (S. Bebjak 20 min.)
- Behaviour of fuel under SA scenarios (G. Mazzini, 25 min)
- Simulation of fuel assemblies in SCALE code (B. Miglierini, 25 min)
- Visits to Olkiluoto 1/2, Olkiluoto 3 sites
- Analysis of Processes in Fuel Rods During Normal Operation, Wet and Dry Storage in Ignalina NPP (T. Kaliatka, 20 min)
- Status of air oxidation knowledge and application to SFP (L. Fernandez-Moguel, 20 min)
- Severe Accident analysis for Spent Fuel Pool with different loadings using MELCOR 1.8.5 computer code for VVER fuel (O. Kotsuba, 20 min)

**15:00**

- Coffee break

**15:30 – 17:00**

- Practical exercises on UF6 accident (C. Lecarme)
- Simulation of fuel assembly behaviour (G. Mazzini)
- Workshop on dry storage or wet storage (J. Depuydt, 20 min introduction, 1h workshop)

**Evening**

- Helsinki city visit/tour
- JSP meeting (Only for delegates)
- Feedback + departures
- Dinner