The European Commission’s science and knowledge service

Joint Research Centre

European Clearinghouse on Operating Experience Feedback for Nuclear Power Plants

Status of works

Nessebar, September 2018
Outline

- The European CH on OPEX feedback
- Topical studies
- Newsletter
- Training
- CH 10 years Anniversary
The Joint Research Centre at a glance

3000 staff
Almost 75% are scientists and researchers. Headquarters in Brussels and research facilities located in 5 Member States.
Clearinghouse: An European network

- 18 countries
- 18 regulators
- 4 TSOs
OEF Clearinghouse Centralised Office (JRC)

Coordination & Communication
Technical & Scientific work
OE knowledge repository

Main deliverables:
- Topical reports
- Quarterly reports on events
- Reviewed draft IRS reports

EU Safety Authorities (18)

EU Technical Support Organizations
IRSN, GRS, Bel-V

International Community
IAEA
OECD-NEA
Services provided by the ClearingHouse Office

- Topical studies
- Databases
- Support to IRS report drafting
- Newsletter
- Training
- Analytical tools for OPEX
- Cooperation with international Organisations (OECD-NEA, IAEA)
Clearinghouse website

https://clearinghouse-oef.jrc.ec.europa.eu/
Topical Studies

- Latest performed topical studies:
  - Control rods
  - Essential DC power
  - Flooding

- Starting the topical study on Safety-related valves

- Study feasibility of additional topics: work practices, fuel, ageing
Safety-related valves study

**Phase 0: Preparation**

**Phase A: Screening**

**Phase B: Event analysis**

<table>
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<tr>
<th>Source</th>
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<td>IRS</td>
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<td>French (Riskaudit)</td>
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2018

Valves

2019

Sr / Top10

Ageing

Sr / Top10

Containment

Sr / Top10

Topic to be decided in 2018

NEW TOPIC #1

Topic to be decided in 2019

NEW TOPIC #2

Topic to be decided in 2019

NEW TOPIC #3
QUARTERLY NEWSLETTER

✓ Aim: to report timely recent safety significant events.
✓ Review of publicly available information (websites, emails, news…) in 30 countries with NPPs worldwide; screening committee every 3 months.
✓ Screening based on real/potential safety significance and relevance of generic lessons learned.
✓ 4 newsletters issued

✓ All issues distributed by e-mail
✓ Publicly available
✓ All events identified loaded on the database
✓ 30 issues published so far
Root Cause Analysis

✓ Carried out at Petten in May 2018

✓ 17 external participants
  • 9 from regulatory bodies
  • 8 from industry

✓ 70% of the time dedicated to a case study analysed with different RCA techniques
CH 10-years Anniversary event (20 April, 2018)

The programme covered:
- Lecture on the First Steps of the EU CH.
- Lecture on the EU CH achievements.
- 2 panel discussions on
  - 1) From data to collective knowledge,
  - 2) The future role of the EU Clearinghouse
Stakeholders expressed their satisfaction in the actual mission and functioning of the CH.

There is room for improvement in the sharing of information related to operating experience at European level

- An identified missing link in the OPEX chain is the verification that lessons learned are actually put into practice.
- Several barriers were identified that can prevent greater reporting of event information, including confidentiality, language, reporting criteria and format.

Closer collaboration with international organisations would be welcome:

- WENRA - Invitation to present the CH at one of the next WENRA meetings
- IAEA – CH could support IAEA self-assessment on opex activities, and strengthen coordination in training actions and topical reports

A possible extension of its scope to include other nuclear installations in addition to NPPs was proposed.
**NEA working groups**

- Committee on Nuclear Regulatory Activities (CNRA)
  - Working Group for Operating Experience (WGOE)
  - Working Group for the Regulation of New Reactors (WGRNR)
    - Collaboration with CONEX database development
- Committee on the Safety of Nuclear Installations (CSNI)
  - Working Group on Human and Organisational Factors (WGHOF)
  - Working Group on External Events (WGEV)

**IAEA**

- Consultancy meetings:
  - Revision of NS-G 2.11 guide
  - Preparation of new draft: Operating experience feedback for nuclear installations (DS479)
  - (...)
  - IRS Highlights
  - Blue book on operating experience