

Agenda

4th Meeting of INDUSE-2-SAFETY (RFS-PR-13056)

COMPONENT FRAGILITY EVALUATION, SEISMIC SAFETY ASSESSMENT AND DESIGN OF
PETROCHEMICAL PLANTS UNDER DESIGN-BASIS AND BEYOND-DESIGN-BASIS ACCIDENT CONDITIONS

www.induse2safety.unitn.it

Saclay, France, 3-4, March 2016

Venue: Commissariat à l'énergie atomique – CEA - Saclay
91191 GIF SUR YVETTE
DM2S/SEMT/EMSI laboratory
Building 603
Meeting room 3, ground floor.....

Please, pay attention to CEA centre access issues in dedicated document

Organizers: *Please note that, due to winter school holidays period, organizers will be partly out of office before the meeting, but at least one will be present for answering questions or solve special demands till the meeting. Please, transfer any demand to the three of them.*

Philippe Mongabure → out of office February 23th / March 2nd included

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Sylvie Prugnaud.(EMSI secretary). → out of office February 29th / March 4th included

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Evelyne Foerster.(EMSI head of laboratory). → out of office February 8th / March 19th
included

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Email: evelyne.foerster@cea.fr....

**Note: Partners mentioned in brackets are invited to offer presentations on the relevant topics.
Remaining partners are free to present and discuss as well.**

Thursday, 3 March 2015

- 10.00-10.10** Welcome to participants and meeting arrangements
- 10.10-10.50** Administrative aspects of the project (midterm report, deliverables, deadlines, etc.) [UNITN].
- 10.50-11.00** Coffee break
- 11.00-12.00** Discussion on WP2: FE models and simulations of systems involving complexity/uncertainties.
- WP2/Task 2.4: Smart geometric configurations and isolation devices for vibration reduction [LPOOL].
- Discussion on Deliverable 2.2: Report on smart geometric configurations and isolation devices for vibration reduction [LPOOL]
 - Proposal of tests on new isolation devices for tanks [UNITN]
- 12.00-13.00** Discussion of WP3: Numerical evaluation of fragilities for support structures, pressure vessels, elevated tanks and heaters.
- WP3/Task 3.2 Fragility curve evaluation of support structures and components in the decoupled case
 - Fragility curves for tanks [UNIRM3]
 - Fragility curves for horizontal pressure vessel [RWTH]
 - Discussion on Deliverable 3.1: Report on fragility curve evaluation of support structures/plant components in the decoupled case [UNITN]
- 13.00-14.00** Lunch Break
- 14.00-15.00** Visit to shaking tables laboratory
- 15.00-16.00** Task 3.3 Fragility curve evaluation of support structures and components in the coupled case
- Fragility curves for elevated steel storage tanks [UNIRM3]
 - Fragility curves for tank-piping systems [UNITN]
 - Analyses on coupled systems tank-foundation [UNITN]
 - Discussion on Deliverable 3.2: Report on fragility curve evaluation of support structures/plant components in the coupled [UNIRM3]

16.00-16.15: Coffee break

16.15-18.00 Discussion on WP4: Experimental testing of piping systems, bolted flange joints, Tee joints, liquid storage tanks and welded connections

- WP4/Task 4.1: Design and construction of specimens **[UNITN, CSM,CEA,UTHESSA]**
- WP4/Task 4.2: Mechanical characterization of steel for cycling loading and low/high temperature **[CSM]**.
- WP4/Task 4.5: Experimental evaluation of leakage and strength capacity of bolted flange joints under **[UNITN]**
- WP4/Task 4.6: Experimental evaluation of leakage and fracture-tearing resistance of welded Tee joints subject to cyclic loading **[UNITN]**
- Discussion on Deliverable 4.1: Report on mechanical characterization of selected steel for cyclic loading and temperature sensitivity **[CSM]**
- Discussion on Deliverable 4.2: Report on low-cycle fatigue tests of welded shell-baseplate connections of unanchored cylindrical steel liquid storage tanks **[UTHESSA]**

20:00 Dinner – the place of dinner will be announced during the meeting.

Friday, 3 March 2016

9.15-9.45 Discussion on WP5: Evaluation of fragilities for piping systems, bolted flange joints, Tee joints and steel liquid storage tanks **[UNITN]**.

9.45-12.00 Discussion on WP6: Experimental testing of piping systems, bolted flange joints, Tee joints, liquid storage tanks and welded connections

9.45-11.15

- WP6/Task 6.1: Definitions of design-basis and beyond-design-basis accidents **[UNIRM3]**.
- WP6/Task 6.2: Definition of procedures for the propagation of accidents chains in risk analysis **[UNIRM3]**.
 - Risk analysis of Case Study #1 **[UNIRM3]**

11.15-11.35 Coffee break

11.35-12.15

- WP6/Task 6.3: Quantitative Seismic Risk Assessment methodology of petrochemical facilities [**UNIRM3**].

12.15-12.30 Date & Place of next meeting, any other business and closure of meeting.