

Agenda

3rd 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

Trento, Italy, 1-2 , October 2015

Venue: Università degli studi di Trento - DICAM (**UNITN**)
Via Mesiano 77
38123 Povo, Trento,
Meeting room - R2 (2nd floor)

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***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, 1 October 2015

10.00-10.10 Welcome to participants and meeting arrangements

10.10-10.40 Administrative aspects of the project (reports, deliverables, deadlines, etc.) [UNITN].

10.40-10.55 Coffee break

10.55-13.00 Discussion on WP2: FE models and simulations of systems involving complexity/uncertainties.

10.55-12.30

- WP2/Task 2.1: Modelling of complex systems by means of detailed FE and dynamic substructuring.
- WP2/Task 2.2: Development of modelling/simulation tools for simplified analyses of components/systems.
 - Modelling of Cathedral Type Heater and Pressure Vessel [RWTH].
 - Modelling of tanks of Case Study #1 [UTHESSA].
 - Modelling of the piping system attached to the tank of Case Study #2 [CSM].

12.30-13.00

- WP2/Task 2.3: Simulation of complex systems taking into account dynamic substructuring errors and uncertainties.
 - Modelling of tank-piping interaction [UNITN].
 - Discussion on Derivable 2.1: Report on simulation results of complex systems taking into account the propagation of dynamic substructuring errors and uncertainties [RWTH]

13.00-14.00 Lunch Break

14.00-15.00 WP2/Task 2.4: Smart geometric configurations and isolation devices for vibration reduction [LPOOL].

- Isolation devices for tanks
- Discussion on Derivable 2.2: Report on smart geometric configurations and isolation devices for vibration reduction [LPOOL]

15.30-17.00 Discussion of WP3: Numerical evaluation of fragilities for support structures, pressure vessels, elevated tanks and heaters.

15.30-16.00

- Task 3.1 Application of simplified discrete FE models for simulations of industrial component/systems subject to seismic loads
 - Modelling of Case Study #2 [UNITN].

16.00-16.15: Coffee break

16.15-17.30

- Task 3.2 Fragility curve evaluation of support structures and components in the decoupled case
 - Fragility curves for tanks [UNIRM3]
- Discussion on Derivable 3.1: Report on fragility curve evaluation of support structures/plant components in the decoupled case [UNITN]
- Task 3.3 Fragility curve evaluation of support structures and components in the coupled case
 - Fragility curves for tank-piping systems [UNITN]
- Discussion on Derivable 3.2: Report on fragility curve evaluation of support structures/plant components in the coupled case [UNIRM3]

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

Friday, 2 October 2015

9.15-11.00 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].
- Discussion on Derivable 4.1: Report on mechanical characterization of selected steel for cyclic loading and temperature sensitivity [CSM]
- Discussion on Derivable 4.2: Report on low-cycle fatigue tests of welded shell-baseplate connections of unanchored cylindrical steel liquid storage tanks [UTHESSA]

- 11.00-11.15** Coffee break
- 11.15-11.45** Discussion on WP4/Task4.6: Experimental evaluation of leakage and fracture-tearing resistance of welded Tee joints subject to cyclic loading **[UNITN]**
- 11.45-12.15** WP6/Task 6.2: Definition of procedures for the propagation of accidents chains in risk analysis **[UNIRM3]**.
- Risk analysis of Case Study #1 **[UNIRM3]**
- 12.50-13.00** Date & Place of next meeting, any other business and closure of meeting.