

33rd ESReDA Seminar

Title: Future challenges of accident investigation

November 2007, the 13th and 14th, JRC, IPSC, Ispra, Italy

The Paper Submission and Review Process

The 33rd ESReDA Seminar has attracted a large number of potential contributors and high quality abstracts have been submitted for review; each abstract has been carefully reviewed by the Technical Program Committee (TPC) members. The review has been done according to the following main evaluation categories:

- Relevance of the topic for the Seminar (whether the topic is in the scope of the seminar);
- Scientific relevance.

As a result of the review process, the 20 most focused papers have been retained for inclusion in the Seminar Draft Program published on the Web at the beginning of September 2007.

In addition, three **invited lecturers** were foreseen at the Seminar:

Pietro Carlo Cacciabue, Senior Scientist, formerly SH at EC-JRC-IPSC, Italy,
Carolyn Griffiths, Chief Inspector of the Rail Accident Investigation Branch, UK,
Bill Hoyle, Investigation Manager, US Chemical Safety Board.

The Draft final program resulting from the check process of the full final papers by the TPC and after confirmation and scheduling of all the invited lectures in the allotted time slots and is herewith annexed (note that timings might be subject to change). Invited lectures have been allotted a 45' time slot each, including time for extensive questions and discussions. Presentations have been reserved 20' including 5' for clarification questions. Discussions and debates with speakers, chairperson and seminar participants are merged at the end of session.

The Technical Program Committee:

Giacomo G.M. Cojazzi, (EC, DG JRC, IPSC, Italy), Michalis Christou, (EC, DG JRC, IPSC, Italy), Nicolas Dechy* (INERIS, France), Sydney Dekker (Lund University, Sweden), Yves Dien (EDF, France), John Kingston (TU Delft/NRI Foundation, The Netherlands), Thomas Gell (NCO/SRV, Sweden), Jean-Christophe Le Coze (INERIS, France), Sverre Roed Larsen (WRI, Norway), John Stoop (Kindunus/ TU Delft, The Netherlands), Ana Lisa Vetere Arellano (EC, DG JRC IE, The Netherlands), Inge Svedung, (Karlstad University, Sweden)

*Program Committee chairperson

Chairman of the seminar

Henrik Kortner, (ESReDA President/DNV, Norway)

ESReDA 33rd Seminar Draft Final Schedule

1st day, Tuesday November the 13th, 2007

- 7.45 Departure from Hotel, (Final time will be notified)
- 8.00 Arrival of the buses at JRC, clearance of entrance permissions, security matters, etc. - Registration
- 8.30 Arrival at the meeting room, JRC Auditorium
- 8.40-8.50 Welcome to the participants**
EC-JRC-IPSC Director, to be confirmed
- 8.50-9.00 Introduction to the Seminar Program and Events Schedule**
Henrik Kortner, ESReDA Director
- 9.00-9.45 Invited Lecture I: TBA.**
Pietro Carlo Cacciabue, Formerly at EC-JRC-IPSC, Italy
- 9.45-10.45 SESSION 1. Accident Investigation and Safety Management**
Chairperson: Pr Inge Svedung (Karlstad University, Sweden) and John Kingston (NRI/Safety Science TU Delft)
- Are safety investigations proactive?*
Prof. John Stoop, John, Lund University, Sweden and Kindunos Safety Consultancy Ltd, and Pr. Dekker, Sidney, School of Aviation, Lund University, (Sweden)
- Getting beyond swiss cheese in accident investigations - Modeling and Improving Human Performance*
Mark Paradies, Taproot, President, System Improvements, Inc.
- 10.25-10.45 Session 1 questions to speakers, discussion and debate with participants**
- 10.45-11.05 Coffee Break**
- 11.05-12.35 SESSION 2. New Methods to Investigate Accidents**
Chairperson: Pr John Stoop (Lund University, Sweden and Kindunos Safety Consultancy Lt) and Sverre Roed-Larsen, Work Research Institute, Norway
- Introduction of the Concept of Functional Resonance in the Analysis of a Near-Accident in Aviation*
David Nouvel, Sébastien Travadel, Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile, Statistics and Safety Analysis Division, and Erik Hollnagel, École nationale supérieure des Mines de Paris, Pôle Cindyniques (France)

How might the tools and concepts of Evaluation Research assist with the rigorous investigation of accidents?

John Kingston and Ferdinand Mertens, (TU Delft, The Netherlands)

Safety Investigation of Accidents - moving from human factors to social capital based approach

Suman Rao, Manager, Reliance Industries Ltd., (India)

11.50-12.35 Session 2 questions to speakers, discussion and debate with participants

12.35-13.45 Buffet Lunch

13.45-15.00 SESSION 3. US Texas City 2005 major accident investigations

Chairperson: Yves Dien (EDF R&D, France) and Jean-Christophe Le Coze (INERIS, France)

Invited Lecture II: Lessons Learned from the CSB Investigation of a Major Accident at the BP Texas City Refinery

Bill Hoyle, Investigation Manager, US CSB, Washington DC.

Staring at Human errors or at Organisational Deficiencies? A content analysis on BP Texas City accident reports

L. Macchi, F. Pieri, E. Runte, Ecole des Mines de Paris; Pole Cindynique (France)

15.00-15.20 Coffee Break

15.20-16.50 SESSION 4. Near-Misses, Weak Signals and Safety Management

Chairperson: Yves Dien (EDF R&D, France) and Nicolas Dechy (INERIS, France)

Operational experience and continuous updating of the safety report at Seveso establishment

Agnello, P. Ansaldi, S. Bragatto, P. Pittiglio, P, ISPESL, (Italy)

Weak signals : can they be useful to avoid accident ?

Sandrine Pierlot, Violaine Bringaud, EDF R&D, (France)

The vigilance process in front of weak signals

Ambre Brizon, Mines Paris, Jean-Luc Wybo, Mines (Paris, France)

16.05-16.50 Session 4 questions to speakers, discussion and debate with participants

16.50-17.05 Coffee Break

SESSION 5. Safety trade-offs versus availability and justice

Chairperson: Giacomo Cojazzi (JRC-IPSC, Italy) and Pr Inge Svedung (Karlstad University, Sweden)

Availability organisational analysis : is it a hazard of safety ?

Marc Voirin (EDF R&D); Sandrine Pierlot (EDF R&D); Michel Llory (ITH), France

Scientific description of interactions between justice and busines

Georges-Yves Kerven IMdR Institut pour la Maitrise des Risques, France

17.35-18.05 **Session 5 questions to speakers, discussion and debate with participants**

18.15 **Bus to Hotels**

19.30 **ESReDA 33rd Seminar Dinner**

2nd day, Wednesday, November the 14th 2007

7.45 **Departure from Hotel**

8.00 Arrival of the buses at JRC, clearance of entrance permissions etc.

8.30 Arrival at the meeting room

8.30-9.15 **Invited Lecture III: TBA**

Carolyn Griffiths, Chief Inspector of the Rail Accident Investigation Branch, UK).

9.15-10.45 **SESSION 6. Managing Accident Investigation**

Chairperson: Carolyn Griffiths (RAIB, UK) and Bill Hoyle (US CSB)

Accident Investigation: from Searching Direct Causes to Finding In-Depth Causes Problem of Analysis or / and of Analyst?

Yves Dien (EDF R&D), Nicolas Dechy (INERIS), Eve Guillaume (TU Delft)

Defining Operational Readiness to Investigate

John Kingston (NRI Foundation) and Roger Bibbings (RoSPA, UK)

ESReDA Guideline for Safety Investigation of Accidents

TBA

10.00-10.45 **Session 6 questions to speakers, discussion and debate with participants**

11.05-12.35**SESSION 7. Dealing with Accident Data**

Chairperson: Michalis Christou (JRC) and Thomas Gell (NCO/SRV)

The European Community's Major Accident Reporting System (MARS): Analysis of industrial accidents using the Storybuilder tool

I.A. Papazoglou (Demokritos), L. Bellamy (Whitequeen) and Fesil Mushtaq (JRC)

Accident Data for the Semantic WEB

Ludwig Benner Jr (USA)

Clustering algorithms in occupational accidents risk analysis

Federica Palamara, Micaela Demichela

11.50-12.35**Session 7 questions to speakers, discussion and debate with participants****12.35-13.35****Lunch****13.35-14.35****SESSION 8. Analysing and learning lessons from crisis events**

Chairperson : Ana Lisa Vetere Arellano (JRC-Institute of Energy) and John Kingston (TU Delft), the Netherlands

Investigating emergency and crisis management drills : a methodological proposal for an in-depth comprehension of the different safety dimensions

Latiers, M., Jacques, J-M..

Lessons learnt from a crisis event: how to foster a sound safety culture

A. Mengolini, L. Debarberis (JRC-Institute of Energy, The Netherlands)

14.05-14.35**Session 8 questions to speakers, discussion and debate with participants****14.35-14.55****Coffee Break**

- 14.55-15.55** **SESSION 9. Future Challenges for Accident Investigation**
Chairperson: Bill Hoyle (US CSB) and Pr Inge Svedung (Karlstad University).
- Accident Investigations in the Norwegian Petroleum Industry – Status and Future Challenges
Eivind Okstad, Erik Jersin, Snorre Sklet and Ranveig K. Tinmannsvik SINTEF Technology and Society, Dept. for Safety and Reliability
- Modern Accident investigation – Four Major Challenges
Roed-Larsen, Sverre, Project Manager, Work Research Institute, Norway, Stoop, John, Professor, Lund University, Sweden. Managing Director Kindunos Safety Consultancy Ltd
- 15.25-15.55** **Session 9 questions to speakers, discussion and debate with participants**
- 15.55-16.25** **CLOSING SESSION AND CONCLUSIONS**
Chairperson : Henrik Kortner, Nicolas Dechy, Giacomo Cojazzi Michalis Christou, Yves Dien, and Andre' Poucet
Wrap up by all Session Chairs and organisers
- 16.45** **Bus to Hotels and Airport**

Other ESReDA Event Schedule to be held at JRC in Ispra

The ESReDA Board of Directors meeting will be held at JRC on November 12th, 2007, from 14.00 to 16.00

WG meetings will be hosted at JRC on November 12th, 2007.
Timing and details will be communicated to the attendees

1) WG Accident Investigation

Meeting to be held on the 12th at JRC to prepare seminar.

2) WG Land-Use Planning : to be confirmed

3) WG Ageing : to be confirmed

4) WG Fire safety : to be confirmed

5) WG Structural reliability : to be confirmed

6) WG Uncertainty : to be confirmed

LOGISTIC ISSUES

How to participate and register to the seminar ?

Registration will be accepted until October 5th 2007.

**A registration file can be downloaded from ESReDA website
<http://www.esreda.org/>**

Seminar Fee

Fee to Non-ESReDA member participants is EURO 300 (free for the speaker of a paper) **to be paid by direct transfer to the following account:**

No: 001-2372816-78, (ref ESReDA 33rd Seminar)
FORTIS Bank-Deinze, Tolpoortstraat 17
B-9800 DEINZE (Belgium)

Information package for participants for hotels and transportation

An information package (hotels, transportation, ...) will be sent to the participant that have registered through the **registration file** to be sent to JRC.

For any further request, please contact Nicolas Dechy at :

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Local Organization Committee:

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Via E. Fermi, 21020 Ispra (Va) Italy

Location: European Commission Joint Research Centre, IPSC, Ispra Site:

http://www.jrc.cec.eu.int/default.asp@sidsz=who_we_are.htm

About JRC and JRC-IPSC

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national. <http://www.jrc.cec.eu.int/>

The Institute for the Protection and Security of the Citizen is part of the Joint Research Centre of the European Commission. IPSC provides research-based, systems-oriented support to EU policies so as to protect the citizen against economic and technological risk. The application areas include: non-proliferation and nuclear safeguards; anti-fraud, compliance monitoring and cybersecurity; risk management and mitigation

The Institute maintains and develops its expertise and networks in information, communication, space and engineering technologies in support of its mission. The strong cross-fertilization between its nuclear and non-nuclear activities strengthens the expertise it can bring to the benefit of customer in both domains. <http://ipsc.jrc.cec.eu.int/>

European Safety, Reliability & Data Association (ESReDA)

European Safety, Reliability & Data Association (ESReDA) is an European Association established in 1992 to promote research, application and training in Reliability, Availability, Maintainability and Safety (RAMS). The Association provides a forum for the exchange of information, data and current research in Safety and Reliability.

ESReDA membership is open to organisations, privates or governmental institutes, industry researchers and consultants, who are active in the field of Safety and Reliability. Membership fees are currently 1000 EURO for organisations and 500 EURO for universities and individual members. Special sponsoring or associate membership is also available.

For more information on ESReDA, contact
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In addition to the 24th ESReDA Seminar on « Safety Investigation of Accidents », **the ESReDA Working Group on Accident Investigation** has prepared one report based on answers to a European questionnaire, and one book about public investigations of accidents. These deliverables have been printed and published by ESReDA as :

- Accident Investigation Practices - Results from a European Study (2003 - report)
- Shaping Public Safety Investigations of Accidents in Europe (2005 - ESReDA Safety Series)