Chemical Accident Risks Seminar
14-15 June 2017
European Commission Joint Research Centre (JRC)
Ispra, Italy

13:30 – 13:50 Wednesday, 14 June 2017	WELCOME SESSION
Welcome and Introduction	MAUREEN WOOD, EC- Joint Research Centre
Opening remarks	GEORG PETER, EC- Joint Research Centre ALEXANDROS KIRIAZIS, EC-Environment Directorate-General
Overview of the agenda	MAUREEN WOOD, EC- Joint Research Centre

13:50 – 15:30 Wednesday, 14 June 2017 PANEL SESSION

Session 1. We cannot improve what we cannot measure. How do we know if we are reducing chemical accident risks? Do we have the right tools to measure this? This is a panel session that will explore what measures are currently available for the EU, national authorities and industry to measure safety performance in reducing chemical accident risks. This session seeks to answer the following key questions: What do these measures say about industry process safety performance? What are the things they can't tell us? Is the picture clear and complete? What kind of leading indicators could be used to predict safety performance trends across industry? What are some possible options for obtaining more accurate and complete statistics on EU performance in reducing chemical accident risks?

Chairpersons

MICHAEL STRUCKL, Federal Ministry of Science, Research and Economy, Austria
ZSUZSANNA GYENES, EC- Joint Research Centre

Rapporteur: Simone Wiers, Ministry of Social Affairs and Employment, The Netherlands

Each Panelist has 5 minutes each for presentation

<u>International/EU Perspectives</u>
KARMEN POLJANSEK, JRC
ROHAN PERERA, Organisation for the Prohibition of Chemical Weapons (OPCW)

<u>Industry Perspectives</u>
DOUGLAS LEECH, Chemical Business Association
WILLIAM GARCIA, CEFIC

<u>Country Perspectives and Joint Country/Industry Perspectives</u>
ASBJORN UELAND, Norwegian Petroleum Authority
ROLAND FENDLER, Environment Agency, Germany
SVETLANA STIRBU, Danube Logistics, Moldova
ZUZANA MACHATOVA, Ministry of the Environment, Czech Republic
ELITA SKRIBNOVSKA, State Environmental Bureau, Latvia
BALAZS KOVACS, National Directorate General for Disaster Management, Hungary
JASMINA KARBA, Ministry of the Environment and Spatial Planning, Slovenia
MATILDA LIKAJ, Ministry of the Environment, Albania
DRAGANA RAONIC, Ministry of Sustainable Development and Tourism, Montenegro

15:30-15:45	COFFEE BREAK

15:45 – 18:00 Wednesday, 14 June 2017
SESSION 2. INTEGRITY OF INSTALLATIONS AND EQUIPMENT

Hazardous sites should ensure ongoing mechanical integrity for systems and their critical components , both containment of hazardous substances inside the equipment and/or critical lines and the proper functioning of critical safety systems during all phases of the plant life cycle: design, installation and start-up, operation and maintenance, shut-down, cleaning and decommissioning. This session seeks answers to a number of questions to have a view of current strengths and weaknesses in mechanical integrity management on hazardous sites. What are major / typical findings from recent inspections and accident investigations and what kind of actions have been undertaken? How do integrity challenges affect small sized establishments (especially in small companies or with simple processes, like LPG storage)? How can the new requirements of the Directive be interpreted in relation to mechanical integrity of equipment and control and monitoring of plant ageing? How can Seveso competent authorities/industry groups promote better integrity management on major hazard sites? How is industry addressing planning and foresight on integrity in new design?

Chairpersons
MILJENKA KLICEK, Ministry of Environment and Spatial Planning, Croatia
SVETLANA STIRBU, Danube Logistics, Moldova
Rapporteur: Mark Hailwood, LUBW, Germany

All presentations are 15 minutes except where noted differently.

Plant ageing – Outcomes from the UK Competent Authority's 5 year intervention programme
JULIE SHARMAN, Health and Safety Executive, United Kingdom

The ageing challenge in Italy
FABRIZIO VAZZANA, National Institute for Environmental Protection and Research, Italy

Ageing of hazardous installations as a potential contributors to major accidents: some events occurred at chemical and petrochemical Italian establishments
ROMUALDO MARRAZZO, National Institute for Environmental Protection and Research, Italy

Example of planning to reduce risk and ensure integrity of the petroleum products storage depot
ANITA MILOSIC, Ministry of Environmental Protection and Energy, Croatia

Need for risks reduction for LPG and ammonia storage depots in Slovak Republic - (5 minutes)
JAN KANDRAC, RISK CONSULT/Ministry of Environment, Slovakia

Explosion of H2
PAWEL DADASIEWICZ, Ministry of Environment, Poland

"Ammonia Crisis" in Israel – Debate on the Integrity of an Ammonia Reservoir
DIMA KATSARAN, Home Front Command, Israel

Ammonia storage – public awareness (5 minutes)
VIBEKE HENDEN-NILSSON, Directorate of Civil Protection, Norway

18:15	DEPARTURE TO HOTELS BY BUS

08:45 – 09:00 Thursday, 15 June 2017 OPENING SESSION	
Overview of the day's agenda	**Maureen Wood,** EC- Joint Research Centre

09:00 – 10:30 Thursday, 15 June 2017
SESSION 3. SECURITY AND SAFETY CHALLENGES ASSOCIATED WITH IT TECHNOLOGY AND AUTOMATION IN MAJOR HAZARD INDUSTRIES – PART 1

This is a double session that looks at both security and safety risks with increased integration of IT technology in hazardous site operations. In particular, the session seeks to understand whether ongoing innovations in the use of IT technology for operation of major hazard sites (e.g., increased automation of processes, optimization tools for managing resources and services , remote control of process functions, etc.) make major hazard sites more vulnerable to cyber attacks than they were 5 or 10 years ago? Can they introduce additional risk factors affecting process safety on major hazard sites? Why or why not?
What are companies doing to protect their sites from cyber attacks or increased safety risks and what are vulnerable industry groups doing to help their sites reduce these risks?
What tools and approaches can the Seveso competent authority use to motivate sites to take action to reduce IT-related safety and security risks at their sites?
Compared to other risks, how relevant and how serious are IT risks for a hazardous site?

This session presents challenges faced by industry in managing IT risks as well as implications for the oversight and enforcement responsibilities of competent authorities.

Chairpersons
JULIE SHARMAN, Health and Safety Executive, United Kingdom
MARC HOHENADEL, EC-Joint Research Centre
Rapporteur, Maureen Wood, EC-Joint Research Centre

All presentations are 15 minutes except where noted differently.

Cybersecurity of Industrial Control Systems: New technology challenges, facts & constraints and Int'l policy context
MARC HOHENADEL, EC-Joint Research Centre

Cyber Security – What we think and what we know
ASBJORN UELAND, Norwegian Petroleum Authority

Cyber security incident in Seveso establishment (5 minutes)
REELIKA KUUSIK, Estonian Rescue Board

Cybersecurity and process control systems in chemical plants: action needed?
WERNER COOREMAN, Solvay Group

Introduction to the European IACS components Cybersecurity Certification Framework (ICCF)
ALESSANDRO LAZARI, EC-Joint Research Centre

10:45 – 11:00	COFFEE BREAK

11:00 – 12:30 Thursday, 15 June 2017
SESSION 4. SECURITY AND SAFETY CHALLENGES ASSOCIATED WITH IT TECHNOLOGY AND AUTOMATION IN MAJOR HAZARD INDUSTRIES – PART 2

This is a double session that looks at both security and safety risks with increased integration of IT technology in hazardous site operations. In particular, the session seeks to understand whether ongoing innovations in the use of IT technology for operation of major hazard sites (e.g., increased automation of processes, optimization tools for managing resources and services , remote control of process functions, etc.) make major hazard sites more vulnerable to cyber attacks than they were 5 or 10 years ago? Can they introduce additional risk factors affecting process safety on major hazard sites? Why or why not?
What are companies doing to protect their sites from cyber attacks or increased safety risks and what are vulnerable industry groups doing to help their sites reduce these risks?
What tools and approaches can the Seveso competent authority use to motivate sites to take action to reduce IT-related safety and security risks at their sites?
Compared to other risks, how relevant and how serious are IT risks for a hazardous site?

Chairpersons
SIMONE WIERS, Ministry of Social Affairs and Employment, The Netherlands
MARC HOHENADEL, EC-Joint Research Centre
Rapporteur: Maureen Wood, EC-Joint Research Centre

All presentations are 15 minutes except where noted differently.

Remote operated production plants - Safety concerns
TIMO TALVITIE, TUKES, Finland

Smart factories for chemical sector; threats or opportunities for the risk control?
FRANCK PRATS, INERIS, France

A regulatory view of the adequacy of cyber security management systems and security countermeasures in major hazard industries
SARABJIT PUREWAL, Health and Safety Executive, United Kingdom

Safety and Security in chemical plants – A LANUV project (5 minutes)
ADRIAN LUX, LANUV, Germany

IT Technology: Also opportunities in Seveso-supervision (5 minutes)
TANJA HEINAMAA, TUKES, Finland

Hazmat information and technology for response (5 minutes)
Hazmat Accidents
NASSER JABER, General Directorate of Civil Defense, Palestine

12:30 – 13:30 LUNCH

13:30 – 15:00 Thursday, 15 June 2017
SESSION 5. ORGANISATIONAL CHANGE AND INFLUENCE OF ENFORCEMENT

This session examines how organisational change may affect process safety risks on major hazard sites and what government and industry can do to reduce potential risk from organizational change. Key questions that will be addressed include: Do site managers know that organizational changes may also affect the plant safety and must be evaluated in the SMS? What impacts do ownership change, staff reductions, re-organisation, reduction in competency requirements, joint ventures, and general drives for more efficient production affect process safety? How can competent authorities identify when sites are at risk because of organizational change? How can competent authorities influence sites to evaluate and address process safety risks due to organizational change?

Chairpersons

ISABELLE BORGONJON, Federal Public Service Employment, Labour &Social Dialogue,Belgium
FRANCISC SENZACONI, General Inspectorate for Emergency Situations, Romania

Rapporteur: TBA

All presentations are 15 minutes except where noted differently.

OECD - Draft Guidance on ownership change in hazardous industry
RAGNHILD LARSEN, Directorate of Civil Protection and Emergency Planning, Norway

Effective process safety management: A matter of good governance
GIUSEPPE ASTARITA, FEDERCHIMICA

Organisational change and safety
DANIELE BARANZINI, Ergonomica

Ammonia accident as trigger for changing safety paradigm
RAN COHEN, Ministry of Labour, Israel

Potential multi-operator challenges associated with new LNG Seveso site (5 minutes)
VINCENT ATTARD, Occupational Health and Safety Authority (OHSA), Malta

15:00 - 15:15 COFFEE BREAK

15:15 – 17:15 Thursday, 15 June 2017

SESSION 6. CHALLENGES IN SUBSTANCE CLASSIFICATION OF NON-HARMONISED SUBSTANCES FOR SEVESO DIRECTIVE IMPLEMENTATION

This session explores key challenges for Seveso implementation arising from self-classification of non-harmonized substances, and in particular classification and downstream legislation decisions involving harmonized substances with non-harmonised classifications, harmonized classification is only a minimum classification, inconsistencies in safety data sheets from different producers, and similar issues. The session seeks to solicit discussion on questions such as: How are EU/EU-affiliate countries approaching these challenges? Is there consistency across EU/EU-affiliate countries in these approaches? If not, should there be and if so, how could this be achieved? How can countries share and notify each other about changes in self-classifications?

The session also may include experiences and challenges of non-Seveso countries in identifying dangerous substances present on their major hazard sites and/or adapting and implementing the GHS/Seveso legislation into their regulatory framework.

Chairpersons

MARK HAILWOOD, LUBW, Germany

ALEXANDROS KIRIAZIS, EC-Environment Directorate-General

Rapporteur: TBA

All presentations are 15 minutes except where noted differently.

Challenges in substance classification of non-harmonised substances for Seveso implementation
MARK HAILWOOD, LUBW, Germany

Linking Seveso with CLP makes Self classification a reality we have to come to terms with!
DOUGLAS LEECH, Chemical Business Association

Discussion on Seveso classification of complex mixtures containing named substances
CLAES LOFSTROM, Civil Contingencies Agency, Sweden

Strengthening preparedness for chemical accidents in Armenia using the Flash Environmental Assessment Tool
VALERI BAGIYAN, Ministry of Emergency Situations, Armenia

Challenges in substance classification of non-harmonised substances for Seveso implementation
DIMA KATSARAN, Home Front Command, Israel

Risk from intermediate temporary storage and ammonia and chlorine (5 minutes)
CHRISTINA IHLEMANN, Environmental Protection Agency, Denmark

Challenges for Seveso implementation arising from self-classification of substances (5 minutes)
PARVOLETA LULEVA, Ministry of Environment and Water, Bulgaria

Chemical safety issues in Georgia (5 minutes)
IRMA GURGULIANI, Ministry of Environment and Natural Resources, Georgia

Substance classification in Kosovo (5 minutes)
HANA IMERI, Ministry of Environment and Spatial Planning, Kosovo

17:15 – 17:30 Wrap-up Maureen Wood, EC-Joint Research Centre

17:30 END OF SEMINAR