Workshop 1
“Safe Maintenance and Risk Assessment”

Bilbao, 22–23 November 2011
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Introduction

- Risk assessment for maintenance is especially challenging and requires particular attention

- It is important:
  - For both client and services provider to be aware of all relevant safety aspects
  - To include safety at the conception/design stage
  - To include safety aspects at the negotiation stage
Introduction

- Various work environments may exist
  - Workers carrying out varying tasks on a certain site, certain tasks on varying sites or in changing working environments
  - Varying situations including routine maintenance, unscheduled repairs or scheduled shutdowns

- A good RA should take into account all these aspects

- Various organisations have developed special tools to deal with these challenges
Risks to maintenance workers during plant shutdowns – Yngve Malmén

Finnish study on chemical safety during process plant shutdowns – main findings:

- Work done during a shutdown should be executed so that the safety level does not decrease
- Risk analyses should focus on the tasks of own personnel as well as tasks carried out by external contractors.
- Everyone involved should be trained before the shutdown
- If safety related equipment need to be turned off, alternative solutions to ensure safety must be applied.
- Control rooms should not be left unmanned during the shutdown.
Synergie/PARI Maintenance, a RA tool for maintenance – Christian Jacquel

- Synergie is an educational program for learners in maintenance area

- 3 party partnership:
  - Educational establishments
  - Professional organisations and associations
  - Prevention network of French Social Security

- A tool consisting of a risk analysis software based on ISO 12100 Standard
Synergie/PARI Maintenance, a RA tool for maintenance – Christian Jacquel

➢ PARI Maintenance software is an analytical tool that allows the maintenance worker to:

- define the maintenance working situation and its limits
- identify the hazards and the dangerous situations within the working situation
- describe the risks associated with each identified hazard
- Define the measures to eliminate the hazards or to reduce the related risks
OiRA and maintenance – Lorenzo Munar

OiRA project aims to ensure that the EU’s micro and small enterprises undertake more and better quality RAs

Maintenance modules will be developed to be incorporated into the OiRA tools and will:

- Help companies to deal with maintenance in a more systematic/structured way
- Convey the messages:
  - Maintenance is essential to keep the working environment safe and reliable
  - Maintenance itself is a high-risk activity
Discussion points/recommendations

- General RA software must apply to the different fields of human activity
- Safety education and life-long training should be taken into account in RA software
- Specific provisions in RA software are to be applied to inexperienced workers
- RA should be included in an overall business approach
- A key element is the provision of preventive measures