



Break-Out Session 2

LPG/LNG Inspection Focus and Techniques

Group 4

*Please save under a different name, e.g.
"Break-out Session 2_Group 4_Presentation"*

2. Safety Reports, Safety Management Systems (SMS) and the Major Accident Prevention Policy (MAPP)



Minimum elements that should be discussed in SR.

- Describe the installation
- Describe the environment
- Scenario's
- Domino effects
- Risk assessment
- Measures for control and mitigation
- (internal) emergency response -> if unmanned extra attention for communication with external parties (fire brigades, ...)

2. Safety Reports, Safety Management Systems (SMS) and the Major Accident Prevention Policy (MAPP)



Weaknesses and challenges of SR and SMS and MAPP (not all specific for LPG/LNG)

- **Organization and structure for small sites**
- **Training instructions and work permits for third parties (unmanned sites)**
- **The inventory does not respond exactly with the site**
- **Training instructions for the few workers on site in case of an emergency**
- **Scenario description of the consequences (often stops at the leakage and not what can happen further)**
- **The SR lacks some essential information (and even wrong information)**
- **Often made by consultant -> information about an other installation with some adaption (surrounding and maps where even the wrong) => the companies is not the owner of the report, very few commitment of the owner**
- **Great companies -> often (but not always) better**
- **Good description of who is responsible for what is important (owner installation vs. owner site)**

2. Safety Reports, Safety Management Systems (SMS) and the Major Accident Prevention Policy (MAPP)



How to verify

- By inspection
- Croatia: expert body with different members + check on site + report to correct the mistakes
- UK: reports of different advisors go to a coordinator who makes a revision plan for the report + makes a five year program to investigate/verify the information in the company
- Visit is needed to evaluate the report
- Ask for working instructions to see if it describes correctly what they do
- Unmanned sites, few people -> are more technical measures needed than organisational and managerial measures?????

SMS, MAPP

- Check by the elements of Annex III
- The complexity of the firm and their risks defines the grade of the SMS and MAPP

2. Safety Reports, Safety Management Systems (SMS) and the Major Accident Prevention Policy (MAPP)



Questions for verifying SR and SMS:

- **MAPP statement: do you have it, is it signed, who do you communicate about it?**
- **SMS: do you have it?**
- **Describe your maintenance system?**
- **Verify measures that are described in scenario's**

4. Findings from past LPG/LNG Inspections



Plant integrity

- Vessels and PSV are inspected, piping usually is not inspected
- Checks by third parties: -> follow-up of recommendations/problems by the owner can be a problem
- Gasdetectors are in some member states mandatory and in other not.
- Is only detection is needed or automatic actions
- Site layout: Distances between installations by industrial guidance

People

- Change in ownership can lead to problems
- Difference in position to inspection: opportunity to learned vs. all means to keep you out and give as less information as possible (certainly about incidents)
- A lot of rotation of operational personal
- Contractors of 3rd parties on unmanned sites: someone of the company should be present (deliver working permit + stays during the work)
- Awareness of the hazards can be better (minor risk are known, worst case scenarios less)
- Communication to workers: get reports

4. Findings from past LPG/LNG Inspections



Questions:

- Focus on how they manage maintenance?
- Working permits (certainly for unmanned sites)
- Emergency planning (certainly for unmanned sites)
- Operational control (certainly for unmanned sites)