MJV Workshop Break-Out Session Questions

Risk Management and Enforcement on Aging Seveso Sites

10-12 April 2019, Qawra, Malta

Session 1. Recognising ageing sites and ageing site risk factors

Here the participants should

- ***Identify key ageing site risk factors***
- ***Describe why each factor elevates site risk due to ageing***
- ***Discuss criteria and strategies for using these risk factors to identify***
  1) sites that need to improve ageing risk management to prevent a future problem
  2) sites that are critically at risk from ageing concerns needing immediate intervention

INSTRUCTIONS TO THE GROUP

1) In the first 5 minutes, groups should:

- ***Choose a rapporteur (note-taker)***
- ***Decide on a strategy for the questions.***

Recommendations

- ***For questions 1 and 2, look through the tables and decide if there are items that you wish to discuss first. After you have finished discussing these, go back and see if you can discuss the rest of the items.***
- ***Leave time to discuss question 3, or you can discuss Question 3 as you go through each topic in Questions 1 and 2***
- ***Discuss the questions and try to provide concrete answers to each.***
- ***Specific details such as***
  - ***inspection methods***
  - ***inspection questions***
  - ***strengths and weaknesses,***
  - ***best and worst case criteria,***
  - ***using real cases from inspections***

  are all good ways to make your experience useful for other inspectors.

2) In the last 10 minutes at the end of the session, prepare your group presentation.

RAPPORTEURS/PRESENTERS –

- ***You should have both NOTES and a PRESENTATION on the memory stick. Please take good notes!***
- ***Please label your sessions and presentations on the memory stick clearly (e.g., Group 1, Session 1)***
- ***Give your memory stick to the chair at the end of the session4)***

You have 75 minutes. Watch your time and please stay on topic!

Topics for Session 1 – Recognising ageing sites and ageing site risk factors

Questions to be considered

1. Discuss typical signs of an ageing site, and how these can be identified

Factor	Signs of Poor Ageing Management	Signs of Good Ageing Management	Inspection questions and tips
Equipment (mechanical, electrical, maintenance back-logs)	**Orange marks on equipment** **Accicent/incidents/near miss**	**No signs for rust/korrosion**	**Do you have a plan for maintenance, and do you follow your plan. What do you do, if you don't follow the plan.** **Have you done any renovation on this part of the plant, if not how do you work with ageing on this part of the plant.**
Documentation (update of P&I'Ds and other safety critical documentation)	**Bad conclusions in report for periodic check for pressure equipment, oiltanks emua, lpg tanks** **Gaps in documentation for maintenance.**	**They have updated drawings after changes.** **They have updated their maintananceprogram after changes**	**Check reports for pressur equipment** **Has the company documentation for lifetime assessment or information from the leveradour.** **See documentation for maintenance.**
Procedures, (update of procedures, for older installations and equipment, etc.)	**no procedure**	**They have procedures for keeping knowlaegde if empoyees are retirering.**	**Are the Procedures updatet not old. They should have a date.** **Check if the there is procedures and specific instructions for maintenance.**
People (competence), training content and structure	**People are not aware of the danger, makes dangerous moves/procedures.**	**The company has internal inspection.**	**Ask for training for the employees**

	Old culture. Familycompany where instruction is lacking. **Wrong education, instruction in inspection of equpment.** **Los of knowledge if many employees retires**		
Others? • MOC • •		**Drawings are not updated.**	**What do the company do with equipment, they don't use anymore? They should have identification or remove old pipes.**

2. **Discuss factors that could make ageing occur at a faster pace than normal or undermine effective risk management of ageing**

Factor	Explain why and give examples	Inspection questions and tips
Change of process conditions without proper MOC	**Galvanic corrosion. Close holes on carbonsteel pipes whith stanless steel makes the corrosion worse**	**Did you change product, that contain acid ex biodiesel whith natural oil in (fat acid) that corrode equipment. Can Change of supplyer result in another chemical composisiton.**
Weather conditions, environmental conditions	**Water freezing in pipes**	
Temporary shutdown of the entire plant or units	**All risks in shut down should be found before repairing.**	

3. **What skills does an inspector need (training and competency) to be able to review ageing plant issues?**

Knowledge about corrosion of materials, procedures, past accidents in this kind of technology, control systems, management systems.

5-10 minutes before the session ends, summarize your discussion. Agree on 10 main points to recognise aging plants/risk factors