**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) |  |  |  |
| **Process control systems**, process software, instrumentation, alarm systems,  |  |  |  |
| **Infrastructure,** electrical, IT infrastructure, universal power supply (UPS) |  |  |  |
| **Documentation** (update of P&I'Ds and other safety critical documentation) |  |  |  |
| **Procedures**, (update of procedures, for older installations and equipment, etc.) |  |  |  |
| **People** (competence), training content and structure |  |  |  |
| **Change of ownership** (companies selling out plants that are expensive to maintain) |  |  |  |
| **Interfaces of old and new elements**, new processes and old equipment, change in inputs and processes, etc. |  |  |  |
| **Accidents and incidents,** alarm handling |  |  |  |
| **Others**?*
*
 |  |  |  |

1. **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 |  |  |
| **Weather conditions,** environmental conditions |  |  |
| **Temporary shutdown** of the entire plant or units |  |  |
| **Dead legs** caused by blinding of equipment taken out of use, but not removed and not maintained |  |  |
| **Lack of maintenance** or postponed maintenance |  |  |
| **Lack of awareness** regarding maintenance of equipment and pipes under ground/ isolated |  |  |
| **Lack of personnel** on site (unmanned plants) |  |  |
| **Loss of competence** |  |  |
| **Shared or unclear responsibilities**  between multiple owners |  |  |
| **Change of ownership** |  |  |
| **Cost-cutting** |  |  |
| **Down-sizing** |  |  |
| **Others**?*
*
 |  |  |

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

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