



**International Atomic Energy Agency**

# **Mining and Mineral Processing Case Study**

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# Goals for 2011

- **Complete chapter**
  - Not quite (but there are still 6 weeks to go!)
- **Collect examples from Member States in defined format**
  - 7 examples written in the past 2 days



# What are the criteria for a test case?

- **Completed safety assessment (or elements thereof) and a decommissioning plan available**
- **Information must be publicly available, or at least agreement that information can be made public**
- **Process has a number of the steps of the DeSa methodology**
- **Preferably the test case will be supported by an operator**
- **Reasonable chance of achieving outcomes expected from FaSa project**



# Findings from Member State Examples

## DeSa Flowchart (Figure 3 'Main Steps of SA')

- ✓ Safety assessment framework
- ✓ Description of facility and activities
- ✓ Hazard identification and screening
  
- Hazard analysis - some
- Engineering analysis – some
- Evaluation of results and identification of controls - some
- Compliance with requirements - some
- Limits conditions and controls specifications - some



# Findings from Member State Examples

- **Decommissioning not normally addressed; but lots of information on remediation and disposal**
- **Safety assessments could not be found**
- **Therefore no information on use of safety assessment**
- **No information on radiation protection measures during decommissioning**



## **\*\*\*STOP PRESS\*\*\***

**At 7pm yesterday evening we received an example of actual decommissioning at a mine site!**

- **Remediation of a Calciner Room which had once operated as the final stage of a uranium processing circuit.**
- **Contaminated steel from within the Calciner Room was recycled.**
- **Concentrated uranium within the process equipment required stringent radiation protection measures beyond those normally employed for such remediation.**
- **Completed successfully with worker radiation exposures well below the regulatory dose limits and with the effective protection of the environment.**



# Conclusions

- **DeSa type methodology has not normally been applied to decommissioning of mines and milling facilities**
- **Decommissioning activities at MMFs are likely to be very similar to routine operational activities**
- **Radiological risks at MMFs during decommissioning are likely to very similar to those during operations**



# Remaining Work for this WG

- **Clean up text of chapter as currently written**
- **Edit case histories already received**
- **Assemble final document**
- **Feedback to IAEA**

