



International Atomic Energy Agency

Mining and Mineral Processing Test Case Closing Presentation

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Third Annual Meeting of the IAEA FaSa Project

**29 November – 3 December 2010,
IAEA Vienna,**

Goals for 2010

- **Confirm selection of test case 31 Jan 2010**
- **Collect, translate (as required) and review documentation**
- **Monthly <1 hr conference call**
- **2 WG meetings before end Nov 2010 (dates to be determined; 1st after test case selected; 2nd end Sept?)**
- **1st draft available Nov 2010 (planning, conduct and termination only)**
- **Present paper at Uranium 2010 (Aug in Saskatoon)**



Work completed over the past 6 months

- **WG meeting to start to address FaSa on test case Sept/Oct**
- **First draft of chapter developed**
- **Developed a list of questions for WG to address**
- **Paper submitted for U2010 conference in Saskatoon (Aug)**



Work done this week

- Reviewed 1st draft of test case document – we think it's in good shape
- Identified gaps in test case that we can plug using member state experiences as appendices
- Developed question for other WGs



Work for the next 12 months

- **Edit test case text to read well**
- **Prepare and collate member state experiences**
- **Plan to meet test case operators in March**
- **WG meeting before coordinating group meeting?**
- **Finalise test case document pre Nov 2011**
- **Present paper at Mine Closure 2011 in Lake Louise, Canada?**



POINTS ARISING FROM MMPF TEST CASE FOR PLANNING WORKING GROUP

- Often for MMPF preliminary decommissioning plans are required primarily for financial estimation purposes (guarantee/ bond/assurance for funding closure; similar to many other non-uranium mining operations).
- MMPF test case is for a site at a very early stage of decommissioning planning, and the safety assessments are very different to those anticipated for a NPP, RR or FFF;
 - Is the planning methodology applicable to a case at such a stage?



POINTS ARISING FROM MMPF TEST CASE FOR PLANNING WORKING GROUP

- The level of detail that is commonly performed for MMPF illustrates the DeSa graded approach very well (i.e. limited safety assessment due to low radioactive contamination levels, well understood decommissioning activities and control measures etc)
 - Does this fit within the FaSa planning methodology?
- Non-radiological hazards are more prominent in MMPFs, and these are well understood from similar mining and civil engineering projects (DeSa excludes non-radiological hazards, unless they are initiators of radiological hazards)
 - Is the DeSa methodology suitable for such a site?
 - Would such a site be better considered under a different IAEA programme such as ISAM/ASAM (including the decommissioning of surface buildings)



POINTS ARISING FROM MMPFTC FOR CONDUCT WG

- **The principle focus of the decommissioning of a MMPF is the development and construction of long term tailings/heap leach pile/waste rock which are essentially low level radioactive waste disposal sites which could be covered under ISAM/ASAM:**
 - **Does ISAM/ASAM consider surface reclamation of LLW processing facilities**
 - **If so, should MMPFs be considered under ISAM/ASAM instead of DeSa/FaSa?**
 - **Should mill buildings be considered under DeSa/FaSa and waste piles/tailings/heap leach piles be under ISAM/ASAM?**



POINTS ARISING FROM MMPFTC FOR TERMINATION WORKING GROUP

- On termination of decommissioning of a MMPF there will large quantities of material left in situ, and very little (if any) will be removed from site.
 - How does long term safe management of these sorts of facilities fit with DeSa (as opposed ISAM/ASAM)?
 - How does DeSa deal with below ground issues, such as groundwater?
- For MMPF the WG cannot foresee a situation where unrestricted release will occur and that in many member states, the State will end up taking long term (in perpetuity) responsibility for the site.



POTENTIAL MEMBER STATE EXAMPLES

To supplement the main test case with examples of what has been done for mill building decommissioning in various member states:

- Bulgaria – Buhovo/Eleshnica
- Canada – Cluff Lake
- China - ?
- France - ?
- Russian Federation – Lermantov GMZ
- South Africa - ?
- Spain – Andújar, Saelices el Chico
- United States – TBD
- Other inputs will be welcome!



And finally.....

**THANKS TO EVERYONE WHO HAS CONTRIBUTED TO
THE WORKING GROUP THIS WEEK**

**AND TO THOSE WHO HAVE HELPED ORGANISE A VERY
WELL RUN MEETING**

