



International Atomic Energy Agency

Mining and Mineral Processing Case Study

Alistair Cadden

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)**



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**



Test Case Candidates

- **ENRESA – FUA**
- **ENUSA – SAELICES EL CHICO**
- **WISMUT – WISMUT**
- **CAMECO**
- **AREVA – CLUFF LAKE**
- **COGEMA**
- **ELACITE MED**
- **BHPB – ELLIOT LAKE, DENISON MINES**

John to make official IAEA contact with these operators



Selection of test Case

- **Cameco has offered a number of sites in Canada which meet the selection criteria agreed in December**
 - **Rabbit Lake (decommissioning plan updated 2009) ✓**
 - includes mining and milling operations
 - **Key Lake**
 - includes mining and milling operations
 - **Beaver Lodge**
 - Includes legacy issues – possibly too complex



Technical Papers

- **Abstracts submitted and accepted at:**
 - **Uranium 2010, Saskatoon, Canada, August 2010**
 - **Mine Closure 2010, Santiago, Chile, November 2010**
- **Papers submitted in January**
- **Mine Closure 2010 wanted more details on test case, which were not available, so paper was not finalised. May be resubmitted for Mice Closure 2011 in July (Canada)**
- **Paper was included in proceedings of U2010 conference**



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 for this week and the next 6 months

- **There appear to be difficulties applying FaSa/DeSa methodology to Mining and Milling facilities, particularly with decommissioning/rehabilitation of facilities such as mines, waste rock dumps tailings ponds.**
- **Still cannot find a suitable test case covering all requirements shown on slide 3**
- **Suggestion to develop new approach to test case based on case histories of what is actually done in member states**



Assistance Required

- **Resources (financial and manpower)**
- **Case studies from participating countries**
- **Engagement in working group activities**

