

# Break-out session

## Nuclear Fuel Cycle Facilities



**IAEA**

International Atomic Energy Agency

# Areas of Interest

- Characterization (in situ radiological mapping)
- Techniques
  - “off the shelf” vs R and D
  - Decontamination
  - Cutting (size reduction)
  - Volume reduction (melting, incineration,...)
  - Remote handling and dismantling
  - Simulation, mock up, scenario (for regulators, training)
- Waste management & clearance
  - Characterization (non destructive assay)
  - Routes, tiers
  - Clear and understandable, uncomplicated methods for clearance
- Planning - strategy, prioritization, costing
- Training courses

# Characterization

- Issues
  - Need to define, understand and share objectives (characterization for what?)
  - Methods: destructive, non destructive (1D, 2D, 3D benchmark models: blg, soil, equipment,...)
  - Alpha (difficult to measure)
  - Approach – expect the unexpected (do it at different stages)
  - Radiation protection program (personnel – dosimetry & personal protective equipment)
- Proposals
  - Hands on training on host site
  - Consulting, networking, ....
  - Utilise the Web site

# Techniques

- Issues
  - Level of uncertainty, time, cost
  - Instrumentation
  - Complexity, industrial process
  - Decontamination target
- Proposals
  - Vendors workshop
  - Facility specific lessons-learnt workshop
  - Technical methodology lessons-learnt workshop
  - Mock-up demonstrations
  - Consulting, networking

# Waste Management & Clearance

- Issues
  - Reclassification & possible clearance
  - Optimization of D&D techniques to maximize clearable waste
  - Recommendations for free release (needs of consistency)
- Proposals
  - Workshop, sharing experience between countries
  - Consulting, networking

# Planning, strategy, prioritization, costing

- Issues
  - Scope of decontamination
  - Sequencing of activities (impact on risk)
  - Transition from care & maintenance (C&M) to decommissioning
  - C&M - cost-benefit issues
  - Keeping decommissioning plans current with technology
- Proposals
  - Content of an overall decommissioning plan
  - Technical workshop
  - Consulting, networking

# Training

- Issues
  - Strategy and methodology (understand the impact on D & D)
  - Specific training needs (key target groups, levels from decision makers to implementers)
- Proposals
  - Training course on site (theoretical, practical)
  - Technical, scientific visits on particular subjects (2-3 days)