The IAEA International School of Nuclear and Radiological Leadership for Safety
Objective, Concept, and Work to Date

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The Leadership School

• The overarching objective of the School is for early to midcareer professionals to develop their safety leadership potential through a better understanding of what leadership means in practice in nuclear and radiological working environments with their inherent complexities and often competing considerations.

• This school is based on experiential learning including a pedagogic progression through the programme on key learning objectives from GSR Part 2.
Inception of the School

• End of 2016 to the beginning of 2017
• The outputs of this phase were:
  – A concept paper with a description of the objectives, expected outcomes, target audience and methodology of the School
  – The establishment of internal coordination
  – Proposals for funding of the project
• Successfully completed
• Necessary basis for preliminary project development
Development Phase

• Early 2017 through to the Fall
• The outputs of this phase were:
  – Consultancy meetings to develop a curriculum for the school
  – A draft programme for a one week pilot school
  – A set of 4 case studies with corresponding Teaching Notes
• Successfully completed
• Basis for the implementation of the Pilot
Case Studies

• 4 Case Studies
  1. Medical Application
     ➢ Misapplication of Radiotherapy treatments
     ➢ Focus on Goal Setting
  2. Nuclear Power Plant
     ➢ Hoisting event in the reactor building during an outage
     ➢ Focus on Values and Attitudes
  3. Emergency Preparedness and Response
     ➢ Release to the environment from a nuclear waste treatment process
     ➢ Focus on Engagement
  4. Summary Case
     ➢ Updating facilities in response to regulatory requirements
     ➢ Focus on All leadership aspects
     ➢ Including an element of Nuclear Security
Review the Case

• Students are
  – Provided the cases weeks in advance
    • Along with GSR Part 2
  – Expected to arrive having read the cases
    • The cases are too long and complex to be read in class
      – 15-20 pages in length

• Short, 10-15 minute, recap presentation given in class prior to group work

• Cases provide
  – Learning objectives – Based on GSR Part 2
  – Setting the Scene – Background information and main actors
  – Description of the Challenge – The story
  – Leadership for Safety Considerations – Things to consider in analysing the case
  – Suggested References – IAEA safety standards and nuclear security guidance
  – Annexes – Provide additional information to add to the realism of the case
Team Discussion

• Students are assigned groups of 4-5 members
  – 45 minutes to analyse and discuss the case in preparation for class discussion

• The analysis and discussion is done in the framework of the Leadership for Safety Considerations as well as the Learning Objectives of each case
  – What were the main issues or tensions that created problems within the case?
  – What could have been done differently?
  – Why do you suppose nobody questioned the decision to introduce a third shift from the very beginning and also after problems began to appear?
  – What is your analysis of the leadership style and behaviours of Jean-Luc? How effective or ineffective was he in taking charge and mobilizing the crisis management team and generating responses?
Class Dialogues

- As opposed to a classroom discussion using a rhetoric or Socratic method the School uses more dynamic exercises to help students explore various aspects of the cases and challenge each other.

- Example exercises include:
  - Simplified root cause analysis
  - Position play
    - Groups playing characters to analyse motivations, values, etc.
  - Prevention
    - If you were there 1-year before, what would you have changed?

- This meant to move students within groups and see things from different perspective.
Wrap-Up and Lessons Learned

• 30 minutes to conclude the session
  – Provide an end to the story
  – Remind students of the Learning Objectives
  – Provide some lessons to be learned

• This is not meant to provide the ‘right answer’
  – Key lessons with respect to leadership for safety our experts identified in drafting the case studies
  – Opportunity for reflection and how students can internalize lessons learned to use them moving forward in their careers
Pilot School

- 1 week in late October 2017 at the University of Nice
- Great deal of interest
  - Over 170 applicants
- 20 applicants selected from a variety of professional backgrounds in the nuclear and radiological field
- Preliminary evaluation shows that, overall, the School was valuable and conceptually sound
Overall lessons

• Coordination and communication amongst facilitators is highly important.
• Augment the theory/conceptual portion of the School to provide a common understanding of key concepts.
• More learning from experience, practical examples, and role play.
• Potential to develop more case studies.
• A longer programme would allow for further augmentation of the School including activities such as technical visits and more time for reflection.
Next Steps

• The Pilot confirmed the viability & merits of the idea of the school and its future development.

Phase 1 - completed Pilot Project (1 Year)

Phase 2 (3 Years) and Phase 3 (5-10 Years)

2017 – onwards
Phase 2 (3-4 years)

• Development of a two week School, regional implementation, and train the trainer programme.
  – Further development of the case studies and an enhanced methodology
  – Regional implementation and building of pool of experts
  – Train the trainers packages and seminars
    • A training management system
  – E-learning and online tools
  – Continued outreach and dissemination
Phase 3 (5-10 years)

• Link to capacity building programmes of Member States
  – Develop a consolidated product that can link with and support Member States’ national programmes for capacity building in the area of leadership for safety
  – Link to relevant research and university programmes in Member States
  – Overall objectives:
    • Facilitate interregional cooperation
    • Mutual learning
    • Harmonisation of practices
THANK YOU FOR YOUR ATTENTION