

Creation of NEA Committee on Decommissioning and Legacy Management

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European ALARA Network Workshop n°18

CDLM - Background

- Countries are faced with increasing decommissioning and legacy management needs.
- 2015: NEA member countries suggested the NEA to provide a more visible platform for dialogues and collaborations.
- Events:



2015	May: SC members expressed needs	2018	Jun: Advisory Group meeting
2017	Oct: NEA RWMD submitted a proposal to SC		Oct: CDLM kick-off
2018	Jan: NEA held a joint bureaux meeting	2019	Jan: CDLM Workshop
	Apr: SC approved the creation of CDLM		Mar: CDLM 1 st plenary

SC Approved Initial Mandate – April 19, 2018

- The NEA Steering Committee approved the creation of the CDLM on April 19, 2018. Its given mandate covers:
 - *The decommissioning and dismantling of all nuclear facilities (e.g. radioactive waste and spent fuel storage facilities; spent fuel reprocessing facilities or other nuclear installations) and all reactor types; and*
 - *The development of practical guidance on regulating and managing legacy waste, waste sites and releases of legacy sites.*

CDLM Kick-Off – Oct 16, 17, 2018

- 72 members, from 20 countries and the EC.
- IAEA as observer.
- Members are policy developers, regulators, decommissioning practitioners and research institutes.

Australia	Finland	Japan	Russia	Sweden
Belgium	Germany	Korea	Slovakia	Switzerland
Canada	Hungary	Netherlands	Slovenia	UK
France	Italy	Norway	Spain	USA

CDLM 1st Plenary Meeting – March 21, 2019

CDLM Workshop – January 16, 2019

- To provide CDLM participants to identify & prioritize common topics of interest;
- Relevant NEA Technical Committees (e.g. CRPPH) also attended the WS to discuss how to address cross-cutting issues.
- Outcomes: CDLM's work to focus on 5 areas:
 1. Effective regulatory/legal framework for developing effective decommissioning policies & Strategies
 2. Strategies and Key Elements in Optimizing Decommissioning
 3. Technical / Implementation Challenges including Project Management, and information management
 4. Financing, decommissioning costing (also to be considered in optimization)
 5. Stakeholders engagement in strategy selection, decisions for optimization.

Proposed Work related to Radiological Protection (TBC)

	Recognition	Legacy management Unexpected situation	Transition from operations to decommissioning	Decommissioning (decontamination and dismantling)	Final site clearance (Demolition and land remediation)
Factors to consider during optimisation	Risk to (protection of) workers	<ul style="list-style-type: none"> Site characterisation <ul style="list-style-type: none"> Contaminants (rad and chem) Physical geography Political geography <i>(What needs to be known in order to develop a plan?!)</i> 	<ul style="list-style-type: none"> Risk from managing spent fuel Risk from managing operational waste 	<ul style="list-style-type: none"> Risk from managing decommissioning waste Risk from managing radiological and non-radiological contamination decontamination Conventional risk from dismantling 	<ul style="list-style-type: none"> Risk from remediation of radiological and non-radiological contamination Conventional risk from building demolition Conventional risk from excavating subsurface structures
	Risk to (protection of) public	<ul style="list-style-type: none"> Application of assessment methods in a graded approach Protection of individuals and protection of populations. 	<ul style="list-style-type: none"> Risk from emissions (e.g. leaks to air and ground) Risks from transportation of spent fuel and operational waste 	<ul style="list-style-type: none"> Risk from emissions (e.g. leaks to air and ground) Risks from transportation of decommissioning waste 	<ul style="list-style-type: none"> Risks from exposure to residual contamination
	Risk to (protection of) environment	<ul style="list-style-type: none"> Application of assessment methods in a graded approach What aspects of the environment do we wish to protect? 	<ul style="list-style-type: none"> Risk from emissions (e.g. leaks to air and ground) 	<ul style="list-style-type: none"> Risk from emissions (e.g. leaks to air and ground) 	<ul style="list-style-type: none"> Risks from residual contamination (e.g. groundwater)

Optimization of Protection in Decommissioning, Legacy and Radioactive Waste Management

- Optimization is to identify the best protection option under the prevailing circumstances.
- A key ICRP principle, in many circumstances implemented as “minimization”.
[Note: ICRP 101 stressed that the best option is not necessarily the one with the lowest dose]
- A judgemental process that must address stakeholder concerns, i.e. must be acceptable and sustainable.
- The prevailing circumstances for decommissioning, RW management, legacy management are different.
- To objectively avoid multiple layers of conservatism, the CRPPH/RWMC/CDLM are considering a workshop (date to be determined).

Optimization: Rethinking the Art of Reasonable

When interpreting the ICRP guidance, a broad range of interpretation is possible.

Questions raised include:

- What is meant by: “taking into account economic and social factors”? How should radiological protection experts take these aspects into account in recommending “the best level of protection that can be achieved given the circumstances”?
- How should “the participation of relevant stakeholders” be practically managed?
- Even though “the best option is not necessarily the one with the lowest dose”, how is excessive conservatism avoided when identifying the best option if “it is not relevant to determine, a priori, a dose level below which the optimisation process should stop”?

Workshop on Optimization: Rethinking the Art of Reasonable

Objective:

- The CRPPH is leading this discussion to evaluate the practical and regulatory aspects of assessing situations needing radiological protection decisions, with appropriate stakeholder participation, to identify the most acceptable and sustainable radiological protection choices under the different prevailing circumstances.

Output:

- A short report focusing on the practical framework including regulatory aspects which should be considered to facilitate achieving acceptable and sustainable radiological protection choices in different prevailing circumstances.

Time and Place

- January 2020, more details to follow.

Other NEA's work on Decommissioning

- Ministry of Economy, Trade and Industry (METI) has requested the OECD and NEA to assist the reconstruction and decommissioning of Fukushima.
- Objective: to assist the GOJ in developing strategies/policies to promote a regional decommissioning industry cluster during the reconstruction process of Fukushima.
- The role of the OECD and NEA:
 - to share decommissioning, policy analysis expertise in developing the strategies and policies, focus on
 - Ensuring the availability of competent workforces and necessary infrastructures for decommissioning
 - Promoting regional industry clusters in supporting Fukushima decommissioning (e.g. robotics R&D, regional infrastructure development)
 - Engaging with stakeholders in developing policies.

Thank you for your attention



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