

Fact Sheet on
Decommissioning and Environmental Remediation

- **What are the issues?**
 - Decommissioning/environmental remediation are inevitable life-cycle stages of nuclear installations, and need timely and effective planning and management. A high number of nuclear reactors and other nuclear facilities are reaching the end of their useful lifetimes and becoming candidates for decommissioning. Large-scale decontamination and dismantling technologies have not been used in many IAEA's Member States yet, and it is expected that optimization of such technologies to projects being launched will last for many years. In addition, early planning including *inter alia* timely allocation of funds is not a current practice in many Member States yet and decommissioning and remediation activities are not fully integrated. There are also a number of sites contaminated by past nuclear activities, which require remediation. Resource constraint is always pointed out as one of the main reasons remediation projects are not implemented, however innovative management approaches can provide alternative ways to make remediation projects accomplishable ..

- **What are the benefits of decommissioning and site remediation?**
 - It is expected that, as the result of IAEA's outputs, Member States will have available guidance that will contribute to the allocation of proper infrastructure and technologies for managing their radioactive legacies and to resolve all related issues in a timely, safe and cost-effective manner.

- **What services does Waste Technology provide?**
 - We provide assistance to Member States to build the infrastructure to properly manage decommissioning/environmental remediation projects. This concerns basic guidance on planning and implementation aspects of those activities, and specialist aspects such as infrastructure to adequately manage materials/ waste arisings (including naturally occurring radioactive materials- NORM's) and establish mechanisms to allocate decommissioning/environmental remediation funds.
 - We assist Member States in drafting/reviewing of their decommissioning/environmental remediation plans for individual operational or shutdown facilities and national programmes in this field including assessment of status, progress and trends of these activities.
 - We provide Member States with information and practical guidance to deal with operation-to-decommissioning transition issues including organizational and societal changes.
 - We provide information and guidance to support Member States' development on strategic, methodological and technological approaches to achieving best practice in decommissioning/environmental remediation. This concerns managerial, organizational and societal issues, decontamination/dismantling of critical systems/components, and cleanup of contaminated territories. The assistance aims at training of national experts to tackle specific decommissioning/environmental remediation tasks. This approach also helps with proper planning and decision making for long term management of nuclear liabilities.
 - Upon Member States' requests, we peer review national decommissioning/environmental remediation programmes, site-specific plans, implementation of these activities including completion, status achieved or progress, or specific aspects thereof.

- **What are recent Waste Technology activities in decommissioning and environmental remediation?**

- We have provided technical support to a number of Member States to draft preliminary or final decommissioning plans for their nuclear facilities.
- A number of Member States with extensive contamination from past mining and milling activities have been assisted to establish remediation plans.
- Equipment relevant to effective/efficient decommissioning/environmental remediation activities –including also software- have been provided in support to planned or ongoing projects.
- Scope, implementation mechanisms and contents of training courses, workshops, expert missions, scientific visits and fellowships have been planned, standardized, customized and validated in a number of TC projects and are available to Member States.
- Coordination of decommissioning/environmental remediation activities has been ensured through periodical reviews, meetings and other mechanisms.
- Member States have been assisted in the stipulation of contracts inherent to planning and implementation of decommissioning efforts.

- **How to benefit from this activity?**

- Member States interested in planning for and/or implementing decommissioning/environmental remediation projects should contact the Technical Cooperation Department of the Agency.
- Member States interested in knowing more about the Agency's programme on decommissioning/environmental remediation should contact: <mailto:mlaraia@iaea.org>.