In meetings, workshops and joint projects, the WPDD collaborates with other groups working in the field of decommissioning. These include the NEA’s programme for the exchange of scientific and technical information on the decommissioning of nuclear installations (CPD), as well as the NEA Forum on Stakeholder Confidence (FSC), to help reflect on the links between decommissioning, decision-making and public confidence, and with the RWMC Regulators’ Forum on regulatory issues.

WPDD publications can be downloaded from www.nea.fr/html/rwm/wpdd.html
- Regulating the Decommissioning of Nuclear Facilities (2008)
- Release of Materials and Buildings from Regulatory Control (2008)
- Stakeholder Issues and Involvement in Decommissioning Nuclear Facilities (2007)
- Decommissioning Funding: Ethics, Implementation, Uncertainties (2006)
- The Release of Sites of Nuclear Installations (2006)
- Decommissioning: It can and has been done (2005)
- The Decommissioning and Dismantling of Nuclear Facilities: Status, Approaches, Challenges (2002)

Within the NEA, the Working Party on Decommissioning and Dismantling (WPDD) of the RWMC provides a focus for the analysis of decommissioning policy, strategy and regulation, including the related issues of management of materials, release of buildings and sites from regulatory control and associated cost estimation and funding. Beyond policy and strategy considerations the WPDD also reviews practical considerations for implementation such as techniques for characterisation of materials, for decontamination and for dismantling.

The WPDD brings together senior experts in decommissioning from 17 OECD countries: Belgium, Canada, Czech Republic, Finland, France, Germany, Hungary, Italy, Japan, Korea, Netherlands, Norway, Slovak Republic, Spain, Sweden, United Kingdom and the United States, with involvement also from other international organisations such as the European Commission and the International Atomic Energy Agency (IAEA). Its membership includes policy specialists, regulators, implementers, researchers and waste management experts. It has a specialist sub-group devoted to the exchange of information and experience on costing issues, the Decommissioning Cost Estimation Group (DCEG).

We owe it to ourselves and to future generations to deal with radioactive materials and waste in a safe and environmentally responsible manner. Societal support for decommissioning is fostered through dialogue and rests on confidence that decommissioning is technologically sound and that safety can be demonstrated convincingly.

Managing radioactive waste for the long term

An international group of the Nuclear Energy Agency (NEA)
A specialised agency of the Organisation for Economic Co-operation and Development (OECD)
Decommissioning development and local employment include future plans for regional relevant socio-economic considerations are the main factors considered. Relevant knowledge of the plant's history waste management path, the extent facility-specific conditions. Site reuse of decommissioning strategy are The factors that affect the choice of decommissioning strategy are dependent on country and facility-specific conditions. Site reuse considerations, the availability of a waste management path, the extent of knowledge of the plant's history and the availability of equipment needed for the plant's dismantling are the main factors considered. Relevant socio-economic considerations include future plans for regional development and local employment. inappropriate pre-funding potentially creates a major constraint, which may make immediate dismantling impracticable in certain cases.

Regulating the Decommissioning of Nuclear Facilities

The removal of fuel from a shutdown nuclear facility eliminates the major source of radiological hazard, i.e. that associated with nuclear operation. This, together with the cessation of operations at high temperatures and pressures, means that risks to public health and to the environment are significantly reduced. The process of decommissioning does, however, include dismantling operations and waste treatment processes with associated conventional and radiological hazards. Some radiological hazards to the workforce remain because of the possibility of coming into contact with radioactively contaminated or activated material. Regulators today adapt their procedures to the changing levels of risk in a nuclear facility that is undergoing decommissioning. One emerging practice involves greater use of internal authorisation systems for minor plant modifications, with a first level of oversight by an independent safety committee established by the plant operator. In this situation national regulatory resources are focused on issues with greater safety or environmental significance.

The Release and Reuse of Materials, Buildings and Sites

The process of decontamination and dismantling of nuclear installations generally results in some dissused materials (often in large quantities) and buildings that present no safety risk to the general public. Releasing such materials from regulatory control, e.g. for free use outside the nuclear industry, provides one option for their long term management. Other management possibilities include the recycling of such materials, especially metals, within the nuclear industry, and/or their direct emplacement in dedicated disposal facilities. Similarly, once a nuclear installation has been completely dismantled the final step involves the decontamination of the site for industrial (nuclear or non-nuclear) purposes, or for other uses (e.g. agricultural or recreational). The step of removal of materials or a site from regulatory control is taken only after extensive surveys have shown that any resulting radiological exposure of the public will be trivial.

Stakeholder Involvement

As in other phases of the nuclear facility life cycle, it is necessary to build and demonstrate to stakeholders a trustworthy basis for decommissioning and dismantling projects. This may be accomplished through involving local and regional actors in decision-making, and is facilitated by their involvement in monitoring activities associated with the continuous changes taking place at the site. Transparency is needed in decision-making and in the respective roles played by regulators, implementers and local authorities. At all times, proactive information, and efforts to ‘translate’ technical information into language meaningful to the chosen audience, will contribute to building mutual understanding and trust. Partnership arrangements, by which institutions enter into structured project-management relationships with local communities, have been found beneficial. Decommissioning may be viewed as an opportunity to improve the sustainability of the host community, e.g. by helping to create added cultural or economic value that increases the quality of life over the years. Also, plant designs integrating reflection on the end use of the facility and site, or technical provisions for quick transitions to other types of facilities, provide better assurance to the host community that there will be flexibility in future planning.

Decommissioning and Lifetime Plant Management

Although the decommissioning of a nuclear facility occurs many decades after its construction, important provisions for decommissioning need to be incorporated at the plant design stage. The third generation nuclear power plants incorporate many improvements that facilitate dismantling. These also provide for easier replacement of components, more efficient maintenance, greater safety and/or lower costs during plant operation. Key design considerations include incorporation of modular concepts, innovations in equipment, materials and system layout, and measures to reduce potential levels of contamination, e.g. by careful selection of materials to reduce activity buildup and by use of fewer components and less piping. Regulators increasingly require that a decommissioning plan be provided at the time of the request of a construction or operating license and that this plan be updated regularly during plant operation. This requirement, coupled with the need for transparent financial guarantees or the timely accumulation of decommissioning funds, makes decommissioning an integral part of lifetime plant management.

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