

Nuclear Energy and Civil Society

Stakeholder participation in radioactive waste management

"Stakeholder involvement" is a key concept in modern approaches to governance that has received considerable attention within the NEA programme of work, in particular in the area of radioactive waste management and the disposal of long-lived waste. Stakeholder involvement rests upon providing information, and may include consultation as well as active participation. In finalising the first phase of its work (2000-2004), the NEA Forum on Stakeholder Confidence (FSC) prepared a report on *Learning and Adapting to Societal Requirements for Radioactive Waste Management*, presenting a synthesis of key FSC findings and drawing specifically on the experience gained in three workshops held in national context in Belgium, Canada and Finland. Three overarching principles have been found to be essential elements of any decision making seeking broad societal support:

- Decision making should be performed through iterative processes, providing flexibility to adapt to contextual changes, e.g. by implementing a stepwise approach that provides sufficient time for developing a competent and fair discourse.
- Social learning should be facilitated, e.g. by promoting interactions between various stakeholders and experts.
- Public involvement in decision-making processes should be facilitated, e.g. by promoting constructive and high-quality communication between individuals with different knowledge, beliefs, interests, values and worldviews.

Within those principles, a hierarchy of objectives should be considered. The waste management programme should be founded first upon recognition by the national government that the status quo is no longer acceptable, and that an important issue needs to be resolved. The link between current waste management policy and the future of nuclear energy should be openly addressed. Identification of a safe and licensable site and a safe and licensable waste management concept that enjoy host community support should then follow. Next, siting efforts should allow for consideration of local and regional development schemes that take into account the needs and views of the affected communities. Finally, radioactive waste management facilities should be designed and implemented in ways that reflect the values and interests of local communities. According to the latter, safety, participation and local develop-

ment are the main pillars of trust. Reviewers have also pointed out that most of these findings are of relevance to all public policy-making processes, not only to radioactive waste management.

In long-term radioactive waste management, consideration is also increasingly being given to concepts such as "stepwise decision making" and "adaptive staging". The key feature of these concepts is development by steps or stages that are reversible, within the limits of practicability. This is designed to provide reassurance that decisions can be reversed if experience shows them to have adverse or unwanted effects.

Despite its early identification within the radioactive waste management community as an important means for reaching solutions and decisions in which there is broad-based confidence, the bases for and application of stepwise decision making, has not yet been widely reviewed. The FSC undertook this task, and documented key findings as well as extensive references to the literature in an FSC report on *Stepwise Approach to Decision Making for Long-term Radioactive Waste Management*. Some of the outstanding issues identified are that:

- Progress can no longer be expected to be linear when an iterative approach is used (this will pose challenges to traditional organisational structures).
- Criteria will be needed for balancing the social sustainability and the efficiency of a process made more lengthy and uncertain by added decision checkpoints.
- The concrete arrangements for sketching out and agreeing on decision phases, for selecting and involving stakeholders in a participative process, and for adapting institutions to meet long-term requirements, will require careful reflection and tuning in each national context.
- A democratic society must seek to accommodate conflicting values and fairness principles.

Institutions and governments are aware of these challenges and examples have been given of a proactive stance, e.g. the re-styling of the role of the regulators and the search for, and implementation of, new forms of dialogue. The FSC report confirms that radioactive waste management is more than finding a technical answer to a technical problem. Continued monitoring of stepwise experience will provide important guidance.

The FSC workshops held in national context have proven to be successful instruments for sharing national experience in interacting with stakeholders. In 2004, the FSC organised its fourth workshop in this series in Germany, following previous events in Finland, Canada and Belgium. Extensive discussions with stakeholders on all levels of interaction gave insight into the specific challenges of the German process, which are characterised by historic interactions perceived as traumatic by some stakeholders, as well as by the proposal of a new approach regarding repository siting criteria and procedures. In this context, the workshop provided a "testing ground" for the



Technical visit during the FSC workshop in Germany.

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government, stakeholders and industry to probe the various viewpoints and probable positions in the discussions to come. It has been shown that in spite of different agendas, various stakeholders from civil society act unanimously regarding process issues, and towards what is perceived as "fact-setting" unilateral actions.

Stakeholder involvement in radiological protection

Since the late 1990s the CRPPH has studied stakeholder involvement in radiological protection decision making, having held three workshops on the subject in Villigen, Switzerland (1998, 2001, 2003). It has been concluded that, while broad stakeholder involvement is not essential to most decisions in radiological protection, it is important for some situations, such as the release of sites from radiological control. The involvement of stakeholders in decision-making processes can improve the quality and sustainability of decisions, and through stakeholder interaction with radiological protection specialists can improve the relevance of scientific input to the decision at hand.

During 2004, the CRPPH worked to consolidate and diffuse the conclusions of its Villigen workshops, publishing the proceedings of the third workshop, as well as a policy-level summary of its findings and a detailed report on the case studies used as a basis for discussions.

The case studies used, however, all dealt with situations in Europe or North America, and thus with stakeholders having European and North-American social and cultural backgrounds. With nuclear power significantly expanding in Asia, and stakeholder questions becoming more common, the Asian members of the CRPPH have begun to consider how the experience from the Villigen workshops could be assessed in the context of Asian cultures, particularly Japanese and Korean. Thus, in 2004 the CRPPH organised the Second Asian Regional Workshop on the Evolution of the System of Radiological Protection, and as in the case of the first Asian regional workshop, included a session on the Committee's stakeholder involvement experience.

Nuclear regulators and the public

Building, measuring and improving public confidence has become a priority for nuclear regulators worldwide. The NEA Committee on Nuclear Regulatory Activities (CNRA) established a working group on public communication of regulatory matters to share information, practices and experiences, and to discuss new developments and techniques in the area of nuclear regulatory communication with the public. This group organised a workshop in Ottawa, Canada, in May to share practices and experience, and to identify important issues.

The workshop addressed how to plan and implement public confidence building activities; how to measure and assess public confidence in the nuclear regulator; and how the results of measuring public confidence impacted the regulator. The workshop used as case studies specific examples where some loss of confidence both in the industry and the regulator had occurred. These cases were related to the Davis Besse issue in the USA, the TEPCO problems in Japan and the Paks incident in Hungary.

The workshop concluded that re-establishing lost confidence is a long and demanding task. Maximum transparency, and intense and proactive communication are needed. It is also important to understand correctly what sort of public the regulator is addressing. A general observation from the presentations and discussions was that cultural differences between the countries are large, and similar means for communication are not effective in all countries. It was also agreed that in some countries the regulators can achieve public confidence more easily than in others. An important factor in this respect is the general public trust in the government and its representatives. Nevertheless, a number of common principles were identified that can be recommended to all regulators:

- Give high priority to building and maintaining public confidence.
- Confidence among all stakeholders is a necessary prerequisite for successful nuclear regulation.
- Use available means to make the regulator well-known. It is convenient to be proactive with the public whenever information needs arise.
- The regulator should make experts available to answer the questions. An adequate number of experts and managers who are prepared for public communication are needed in the regulatory organisation to ensure prompt and accurate responses to communication needs at any time.
- Periodically measure regulator confidence among stakeholders.
- Stay clear of energy policy and keep an adequate distance from the licensees when communicating with the general public and news media.

Society and nuclear energy policy

The second phase of the NDC project on society and nuclear energy was completed with an analysis of case histories related to communication on the risks and benefits of nuclear energy. The report will be made freely available on the NEA website early in 2005. Readers will find a wide array of information and analysis covering generic and country-specific aspects of the issue. Countries addressed in the case histories include Belgium, Canada, Finland, Hungary, Japan, Spain and the United States.