

COMMUNICATING THE SAFETY OF RADIOACTIVE WASTE DISPOSAL FACILITIES - Chairperson C. McCombie (Switzerland)

The session began with 4 invited papers giving communication experiences from South Korea, Sweden, the USA and Canada. The first of these described an analysis by university academics of the multiple Korean trials at voluntary siting; the second by the Swedish regulator concerned communication approaches in national siting projects; the third, also by a regulator, summarized both international and specific US work; the last detailed the Canadian implementer's successful efforts to agree with a local community on siting a low and intermediate level radioactive waste repository. The rapporteur of the session then summarized 4 relevant contributed papers from Latvia, Denmark, Malaysia, and Brazil. These presentations were followed by a panel discussion in which the speakers were joined by panelists from Japan, Denmark and the UK.

The list of questions posed to the panel and the audience included those listed below, but discussions ranged more widely.

- Who should be communicating safety – the implementer, regulator, policy-maker, or IAEA?
- Which are the key target audiences - general public, local public, media, scientists, younger generations?
- How should we be communicating – by numbers and plots, risk comparisons, indirectly, such as through analogues, personal contacts, etc.?
- Are our organizations structured and staffed appropriately – how many technocrats, public relations specialists or sociologists?

In the remainder of this session summary, the main points made by panelists and by members of the audience are noted.

There is an increased awareness of the importance of communication and this has resulted in increased effort by implementers, regulators, and international bodies. The variety of stakeholders involved implies that specific, tailored communication approaches are needed. At the present time, even internal communications within an organization or industry can be a challenge. Regulator-implementer interactions, on the other hand, are improving, or have been improved. An urgent task is to communicate more with the next generations, i.e., to strengthen education and knowledge transfer. The most important and most challenging communication is between experts and the public.

Important general points were made concerning these communication processes; they were that, today, there is movement - from informing - to dialogue - to participation. It is also

necessary to recognize that, in this context, the risk perceived by the public is as important as the actual or scientifically derived risk. Although there are sometimes important culturally dependent differences in choosing the most effective communication approaches, cross comparisons have shown that there are also very many commonalities. Important for experts – although less for the public – is that it has proven to be difficult to have a consistent safety framework and communication platform across all radioactive waste management applications, ranging from high level waste disposal to the remediation of mine sites.

Bitter lessons have been learned from project failures (e.g. in Canada, the UK, Switzerland and South Korea) but there have also been positive lessons from successes in Finland, Sweden and recently in Canada. The common message is that success depends on openness, trust in organizations and the personal behavior of those involved. Several organizations have made changes in their cultures and structures in order to emphasize these characteristics. The most effective communication has been by technical staff – provided that these have had proper training and professional support. The Safety Case (however defined) is a key concept in the dialogue. It is the prime vehicle for regulator/implementer communication. For the public, however, it is important to avoid technical jargon and too many numbers; here the effectiveness of alternative lines of argument may outweigh that of presenting direct safety assessment results. It is crucial that the implementer or regulator does not swamp the public with too much documentation, but rather tries to listen empathetically to their concerns – and to respond to these.

The changing role of the regulator in some countries was discussed. Increasingly, the regulator has a more direct role as the representative of the public, although there is still some sensitivity about avoiding being viewed as a 'promoter' of a facility. It was agreed that there needs to be early regulatory involvement in projects and that the direct inclusion of regulators in the siting process is a productive approach. To fulfill their expanded role, regulators need to have adequate resources and capabilities.

In siting, the trend is clearly from DAD (A) (decide-announce-defend-(abandon)) through technocratic approaches to achieving community assent and even to joint decision making or volunteering. In deciding on siting strategy it is important to know where the ultimate decision power lies. Here mention was made of the "donut effect" in which agreement has been reached at the local community and the national levels, but where opposition at an intermediate level blocks progress. Providing benefits to a local hosting community is normal practice; it is necessary but not sufficient. A sharp spatial cut-off in such benefits is best avoided. A prerequisite for successful siting is to establish consensus on the need for the facility. But there are other key local issues, including property protection liabilities, job potential, etc. The Environmental Impact Assessment (EIA) process is an efficient vehicle for

public participation and it reveals that non-radiological impacts can be more important to the local public than far future dose predictions. There were varying reports on the observed enthusiasm or apathy of local residents for participation in dialogue. Meetings arranged by regulators appeared to attract more interest in some countries – perhaps because the public feels that it can exert more influence here.

The contributions to the conference illustrated that a large variety of tools for communication are available. There is also some information available on their relative effectiveness. Some examples of communication vehicles that always function well are visitor centres, demonstration experiments, and well-designed, topical web sites. Natural and archaeological analogue studies can be very valuable, provided that these are used correctly and not over-sold.

Measures are being taken to address the challenge of communicating safety, e.g. the IAEA's Improving/Application of Safety Assessment Methods (ISAM/ASAM) project. Mostly, efforts are aimed at the nuclear community but exceptions exist, e.g. the European Community's Community Waste Management (COWAM) project or the Forum on Stakeholder Confidence of the NEA. The IAEA can help the communicators by ensuring that a coherent system of targets and recommendations is available. Further, the IAEA could invest more effort into providing, in a form suitable for public communication, explanations and justifications for the guidance that it gives. Finally, the international organizations were recognized as having increased their involvement in the crucial task of providing further education of professionals in the waste management area. This is being done, for example by the IAEA's Network of Centers of Excellence for Training in Geological Disposal Technologies and the World Nuclear University (WNU). Education of young professionals and of the public at all levels should be a high priority IAEA objective.