

January 8, 2003

MEMORANDUM TO: Martin Virgilio, Director
Office of Nuclear Material Safety
and Safeguards

THROUGH: John Greeves, Director **/RA/**
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

FROM: Janet Kotra, Team Leader
High Level Waste Public Outreach Team

SUBJECT: TRIP REPORT ON PARTICIPATION IN A SITE VISIT AND
INTERNATIONAL WORKSHOP JOINTLY SPONSORED BY THE
FORUM ON STAKEHOLDER CONFIDENCE AND THE CANADIAN
GOVERNMENT; PORT HOPE AND OTTAWA, CANADA,
OCTOBER 15-18, 2002

Attached is a trip report documenting the Division of Waste Management's (DWM) staff participation in a site visit and a workshop that were jointly sponsored by the Organization for Economic Co-operation and Development (OECD) Nuclear Energy Agency (NEA) Forum on Stakeholder Confidence (FSC) and the Government of Canada. This report expands upon a "quick-look" report prepared on October 23, 2002. DWM believes the content of this report may be of interest to the Commission, and recommends that OIP forward the report to the Commission.

Attachment: As stated

cc: J. Craig (OEDO)
J. D. Lee (OIP)
T. Rothschild (OGC)
L. Silvius (ONSIR/INFOSEC)
M. Federline (NMSS)
T. Sherr (NMSS/FCSS)
J. Kennedy (NMSS/DWM)

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DATE	12/12/02	12/18/02	12/20/02	1/8/03

NRC FOREIGN TRIP REPORT

Subject

International Atomic Energy Agency (IAEA) Sponsored: International Conference on Safe Decommissioning for Nuclear Activities: Assuring the Safe Termination of Practices Involving Radioactive Material

Dates of Travel and Countries/Organizations Visited

October 14-18, 2002; Greifswald Nuclear Power Plant Berlin, Germany and Wismut Uranium Mining/Processing Site at Ronneburg, Germany

Author, Title, and Agency Affiliation

Janet P. Kotra, Team Leader
High Level Waste Public Outreach Team
Division of Waste Management
Office of Nuclear Material Safety
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Sensitivity

Not applicable

Background/Purpose

Understanding the factors that influence public perception and confidence in the area of radioactive waste management is of major concern to the Radioactive Waste Management Committee (RWMC) of the Nuclear Energy Agency (NEA). The Forum on Stakeholder Confidence (FSC) is a working party of the RWMC and acts as a center for the exchange of opinions and experiences across institutional and other boundaries. The FSC is made up of members from thirteen countries with active waste management programs as well as representatives from the International Atomic Energy Agency and the European Commission. In order to assess the lessons that can be learned, the FSC promotes open discussion across the entire spectrum of stakeholders in an atmosphere of trust and mutual respect. In addition to its annual meeting in Paris, the Forum also sponsors an annual workshop with wider participation to examine, in detail, issues of stakeholder confidence that have arisen in a particular member country's waste program. At the April FSC meeting, the member from Canada expressed Canada's willingness to host the October workshop.

The two years leading up to this workshop has been a defining period for radioactive waste management in Canada. In March 2001, an agreement was reached between the Government of Canada and three local communities in southern Ontario to clean up and locally manage close to 1.5 million m³ of low-level uranium milling wastes and slightly contaminated soil in long-term management facilities. In April 2001, the Canadian Government introduced in Parliament a bill entitled *An Act Respecting the Long-term Management of Nuclear Fuel Waste*, also called the *Nuclear Fuel Waste Act*. The bill received Royal Assent in June, 2002, and is now law. This act provides the legal framework enabling Canada to move towards a solution of spent nuclear fuel disposal, including the selection of a preferred technical approach to be implemented by the waste owners, the financial responsibilities of the owners, and the structure of government oversight.

The agenda for the site visit and workshop is provided as **Attachment 1** to this report.

Abstract

On October 15-18, 2002, Janet Kotra participated in a site visit and workshop that were sponsored jointly by the FSC and Natural Resources Canada (NRCanada), an agency of the Canadian Government. Delegates from the Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM), from both headquarters and the DOE Yucca Mountain offices also represented the U.S. Unlike previous FSC meetings and workshops, representatives from the U.S. Environmental Protection Agency did not attend. The FSC is a working party to the RWMC of the Organization for Economic Cooperation and Development's (OECD's) NEA. The FSC is made up of members from thirteen countries with active waste management programs as well as representatives from the International Atomic Energy Agency and the European Commission. On October 15, delegates to the FSC took part in a site visit at uranium milling waste disposal facilities in three communities in or near Port Hope, Ontario. In Ottawa, delegates received an overview of the status of radioactive waste disposal in Canada, and then joined a wide range of Canadian stakeholders for three days in discussions of issues affecting public confidence in radioactive waste management and disposal in Canada. In a series of facilitated roundtable discussions, FSC members examined factors that fostered, or diminished stakeholder confidence in a number of Canadian case studies. Three separate sessions addressed: 1) What are the social concerns?; 2) How to address social concerns?; and 3) Development opportunities for communities. Janet Kotra served as session moderator for one session and as one of eight facilitators during the animated discussions that followed the invited presentations, or "stakeholder voices," that kicked off each session. Observations from the topical sessions corroborate those from earlier FSC activities. Among these are that: a sound and fair process is as important as technical competence; personal relationships are key to building trust but enough time and resources are needed for engagement; clear expectations of outcomes for stakeholders must be established at the beginning of a process; effective incentive or development opportunities are community specific and their selection must be community driven; regulators and developers must both behave and be viewed as responsible organizations; and accountability, transparency, and openness are key to building trust. Before the start of the workshop, staff from the NEA secretariat convened a brief business meeting of FSC members. FSC members discussed a draft outcome document and a draft paper on stepwise decision making in radioactive waste management. Both drafts reflected comments received after the last FSC meeting. Forum members are to provide final written comments on these documents by the end of November and January, respectively. The next FSC meeting is scheduled for May 2003 in Paris.

Port Hope Area Site Visit

History

Since the 1930s radium, and later uranium, were refined in Port Hope. Wastes were disposed initially within the town and then, later at nearby sites in Welcome (1948-1955), in the greater Port Hope township, and at Port Granby (1955-1988), in Clarington, on the north shore of Lake Ontario. Both of the nearby facilities are owned and operated by Cameco Corporation. Widespread contamination throughout the township was first recognized in the mid-1970s. The most hazardous areas of contamination were cleaned up immediately and Canada's nuclear regulator ordered the decommissioning of the two waste management facilities. While the

current risks from these consolidated waste sites are low, continued management of these wastes at these sites is inadequate for the long term.

Siting Initiatives

Initially, Eldorado Nuclear Ltd., a federal Crown Corporation and then owner of the waste facilities, conducted a traditional siting process which led to immediate local opposition and federal intervention. Subsequently, a siting task force, commissioned by the federal government, approached 850 municipalities over an 8 year period, looking for a volunteer host community without success. Ultimately, the contaminated communities themselves came forward with their own local solutions to the problem.

Each community (Port Hope, Port Hope Township, and Clarington) developed its own local design concept, hiring technical consultants as required. The Government of Canada facilitated the community process and provided funding to the communities for their costs. Each proposed design concept was endorsed by the respective municipal council and accepted by the federal government as a basis for further negotiation. Out of the ensuing negotiations, a legal agreement between the federal government and each of the three municipalities emerged. The agreement set out the terms under which the cleanup would proceed, and long-term monitoring and maintenance will be enforced. All parties ratified the agreement on March 29, 2001. Each of the design concepts will be developed into complete engineering designs, followed by preparation of environmental assessments and multi-step licensing by the Canadian Nuclear Safety Commission. Facility licensing, construction, waste emplacement, site restoration and closure are expected to take ten years or longer. All costs will be borne by the federal government of Canada.

FSC Site Visit

FSC delegates arrived in Port Hope on the evening of October 14, 2002. To afford delegates an opportunity to support the local economy, and to indeed appreciate the importance of tourism to this community, delegates, in groups of three or four, were housed at several of the many bed-and-breakfast inns, in Port Hope. Port Hope has a well-earned reputation as one of Ontario's best-preserved Victorian towns. It boasts an historic downtown rich in nineteenth century character, and draws a thriving tourist trade from Toronto, an hour to the west. The next morning FSC delegates toured the Port Hope area, visiting local sites of low-level waste contamination, and the historic waste management facilities targeted for cleanup under the Port Hope Area Initiative. Following the tours, delegates met with local citizens and municipal officials during a luncheon meeting. Speakers provided a comprehensive overview of the factors leading to the historic agreement. During a lengthy question and answer period, FSC delegates probed the issues most important to local stakeholders, and how these issues were addressed. Comparisons were drawn between past siting failures as well as the more recent successes.

Important considerations leading to stakeholder acceptance of the agreement were:

- 1) Community-specific planning with high degree of community involvement was essential.
- 2) In viewing the virtually identical hazards, with comparable risks, neighboring communities may differ in the priorities they assign to social and technical considerations. For example, Port

Hope and the Port Hope Township citizens favored excavation of existing waste and construction of new highly engineered facilities. By contrast, Port Granby residents were equally adamant that excavation be minimized and the existing facility be retained and reinforced for a design life of at least 500 years.

3) For the entire region, remediation of the waste to pre-contamination background levels was essential. Confidence in this result would be achieved to the communities' satisfaction, if, when complete, all facilities would be available for active and passive recreational use by all members of the community.

4) Long-term environmental monitoring, before during and after completion of the project, with full public access to the results was also identified as necessary for public confidence.

5) Guarantees that property values would be protected were written into the agreement. The inclusion of the "property value protection program" was a key (some say decisive) contributor to achievement of the final agreement. Removal of regional stigma from the "town that glows in the dark" was also cited as a key consideration, along with pride that as progress has been achieved in tackling this decades-long problem, the tourist economy in Port Hope has been flourishing.

6) The best solution is the one that best meet the needs of the community. The "best" technical option may not be the most acceptable to the community. Within a range of technically and environmentally responsible designs, communities should be able to influence the selection of the programmatic and technical options that address their needs and concerns. FSC delegates were told of nearby limestone caverns excavated in the past for stockpiling petroleum. These caves were never used for the original purpose and consideration was given to using them for disposal of the uranium processing wastes. Despite the assurances of technical experts, community members were not comfortable with that approach. The community was more comfortable with a near-surface solution. The near surface design was perceived that to be more accessible for monitoring and possible waste retrieval, should retrieval become necessary.

Overview of Canadian Context

During the afternoon of October 16, FSC delegates received an overview of the Canadian nuclear fuel cycle and the status of Canadian radioactive waste policy. This overview comprised four presentations by the directors and staff of the Uranium and Radioactive Waste Division of Natural Resources Canada and the Division of Wastes and Geosciences of the Canadian Nuclear Safety Commission.

Nuclear energy represents 15 percent of the electricity generated in Canada, and 50 percent of electricity generated in the province of Ontario. Canada leads the world in uranium production, accounting for more than 30 percent of total global production. Nuclear power production in Canada results in 2,000 metric tons of nuclear fuel waste each year. For economic reasons, Canada does not plan to reprocess these wastes. At current market prices, reprocessing costs would exceed the cost of fresh fuel by a factor of 5.

A deep geological disposal concept was developed by Atomic Energy of Canada Limited (AECL) and Ontario Hydro, the largest Canadian utility. The AECL concept anticipated the burial of nuclear fuel waste assemblies at depths of between 500 and 1000 meters in stable rock formations in the Canadian Shield. In October 1988, AECL's concept was referred for review by a federal independent environmental assessment panel. Guidelines for the required

Environmental Impact Statement (EIS) were published in 1992, and AECL submitted an EIS in 1994. The Seaborn panel, named for its chairman, Blair Seaborn, conducted extensive public consultations for more than nine years. In March 1998, the Seaborn panel concluded that:

“From a technical perspective **safety** of the AECL concept has been on balance adequately demonstrated for a conceptual stage of development, but from a **social perspective**, it is not.....

As it stands, the AECL concept for deep geological disposal **has not been demonstrated to have broad public support**. The concept in its current form does not have the **required level of acceptability** to be adopted as Canada’s approach for managing nuclear fuel waste [*emphasis added*]”

In its December 1998 response, the Government of Canada agreed with the bulk of the Panel’s recommendations. The Government did not adopt, however, the Panel’s recommendation for creation of an independent organization “at arm’s length” from the nuclear industry that would be responsible for future waste management and disposal. Instead, the Government placed the primary burden to develop and pay for disposal on the utility owners who profit from the operation of nuclear reactors. Under the Nuclear Fuel Waste Act, it charged the owners to establish, organize and manage a Waste Management Organization (WMO) over which the Government would exercise appropriate oversight. By November 2005, the WMO must submit a report to the Government setting out its preferred approach for long-term management of nuclear fuel waste. This Study must include:

- A comprehensive public participation plan
- A framework to assess ethical and social considerations
- An Aboriginal consultation plan
- Identification of long-term options, that must include, but are not limited to, a modified concept for deep geologic disposal, storage at reactor sites, and centralized storage, either above or below ground
- Comparison of the risks, costs and benefits, analyzed within the context of proposed siting areas

The Nuclear Fuel Waste Act also provides for the WMO to establish an Advisory Council representing a broad range of scientific, technical, and social science disciplines, as well as representatives from affected populations. Within three years, the WMO will submit its proposed options for a general approach. The Government of Canada will select among the options presented, and the WMO will embark on a siting process, followed by an environmental assessment process and a license application process. The WMO will implement the approved option using funds accumulating in the nuclear energy corporations’ segregated trust funds, set aside for this purpose. Administration of the Nuclear Fuel Waste Act falls to Natural Resources of Canada, and any management option approved for development by the WMO would have to receive a license from the Canadian Nuclear Safety Commission.

As noted above, the Nuclear Fuel Waste Act specifically requires the study of ethical considerations for each of the three or more options identified by the WMO. According to our Canadian hosts, no other national law to date has imposed such a requirement.

From this very cursory review of the status of nuclear fuel waste management in Canada, it is easier to understand why the Canadian Government was especially eager to host this year's FSC workshop. The Canadian Government faces a daunting challenge in interpreting and implementing this recently enacted statutory framework, in a very short time frame. I believe that NRCCanada expects to draw heavily on the issues and observations made by participants during the FSC workshop as it embarks on this task.

FSC Workshop

Opening Remarks

Opening the workshop, on October 17, was **Carol Kessler, Deputy Director-General of NEA**. Kessler noted that nuclear programs in NEA member countries, as a group, have largely underestimated the societal and political dimensions attendant to nuclear fuel waste management and disposal. The 1998 Seaborn Report from Canada represents, in her view, an important shift from an essentially technical emphasis in managing these wastes to a combined technical **and** social emphasis. She noted the need to move from rigid procedural interactions with stakeholders to embrace a new model of interactions among affected stakeholders. She noted that while NEA recognizes that there can be no public confidence with out a strong technical base, it is now time to acknowledge that social considerations are also fundamental.

Yves LeBars, FSC Chairman, welcomed the participants and briefly discussed the organization and objectives of the workshop. He thanked the Canadian hosts and especially the Canadian stakeholders that would share their views. He emphasized that it is not an international assessment but a workshop to stimulate improvements in each country. He explained that there would be three topical sessions that would take up the questions: 1. What are the social concerns?, 2. How to address these concerns?, and 3. What opportunities exist for community development? Each session would start with four or five speakers, voices of Canadian Stakeholders, describing examples of stakeholder experiences with a variety of controversial facilities, both radiological and non-radiological. Following these presentations would be facilitated roundtable discussions at eight tables with eight or nine participants at each. Led by a moderator at each session, facilitators from the eight tables would conclude each session by presenting the major conclusions of their group. Following the topical sessions were feedback presentations from four "thematic rapporteurs," specialists from different disciplines (radiation biology, economics, philosophy, and communications), summarizing their observations of the issues and the conduct of the workshop.

Summarized below are highlights of selected presentations from each session. As moderator for Session II, my report on the observations and conclusions from the round table discussions during that session are included as **Attachment 2**. Summaries prepared by the other moderators for Sessions I and III, as well as the prepared texts of the speakers and the final reports of the thematic rapporteurs, will be published as part of the Proceedings of the Workshop in mid-2003.

SESSION I: What are the Social Concerns?

From **Keith Storey, Professor of Geography, Memorial University of Newfoundland**, we learned of a comprehensive social impact assessment conducted in conjunction with the planning and construction of an offshore oil-drilling platform. The purpose of the assessment was to identify, manage and follow-up on the concerns of communities affected by this enormous construction project. By identifying concerns and values of local area residents well in advance, through a community consultation process, the proponent was able to design a management strategy that minimized social disruption associated with the project. The proponent had learned that fear of social disruption and the strong imperative to maintain community integrity (*i.e.* not be overwhelmed by the project) were the overarching concerns for the affected Newfoundland communities. These concerns were planned for and dealt with by accommodating workers in a high-quality, “over-engineered” workcamp. This strategy paid off both in terms of unusually high levels of satisfaction expressed by the workforce (with associated high productivity, low turnover, *etc.*) and avoidance of community disruption. Follow-up monitoring conducted after the project was completed showed that the strategy’s effectiveness and that few negative social impacts occurred. Among the important lessons learned from this assessment experience, the most intriguing concerned planning for uncertainty. Storey noted that several unanticipated events delayed the project, which in turn prompted project responses with significant social implications. Storey observed that:

“...effective impact assessment does not end with the project approval decision. An EIS provides an essentially static, snapshot, best-estimate image of what is predicted to occur under certain assumptions. Large-scale projects are complex and exist within a dynamic environment, and what was predicted can often become irrelevant or inaccurate over time. In this case, uncertainties were acknowledged and addressed through contingency planning and the development of adaptive management strategies.”

Blair Seaborn, Chairman of the former Canadian Environmental Assessment Panel on Nuclear Fuel Waste management and Disposal Concept, discussed the deliberations of the independent panel and the bases for its findings. He emphasized that social questions related to radioactive waste management are no less daunting than the technical and scientific questions, and are at least as important for developing good public policy. According to Seaborn, for any concept to achieve broad acceptability, the public must be: 1) well informed, 2) aware of and have participated in developing the decision-making process, 3) know the key points at which safety and acceptability are assessed and 4) know who makes the decisions.

“These conditions did not at present exist [when the AECL concept was presented], in part, because there was no real site, no real design and no real proponent. The evidence was not here to say that there was broad public support and acceptability.”

According to **P. Larcombe, Senior Manager of Winds and Voices Environmental Services**, Aboriginal peoples in Canada “cringe” at references to Aboriginals as ‘stakeholders.’ More than any other segment of Canadian society, Aboriginal peoples living in remote communities are heavily reliant on healthy environments and healthy natural resources to preserve and maintain

their lifestyles, cultures and economies. Aboriginal peoples in Canada cite their unique circumstances whereby their Treaty and Aboriginal rights are explicitly protected under the 1982 Constitution of Canada Act. Social concerns of Aboriginal Peoples with regard to the siting of any large-scale project include:

- Maintaining water and land transportation access to traditional territories
- Protecting the quality and quantity of natural resources important to lifestyle, culture and economy
- Protecting important historic, cultural and ecological sites
- Preserving the natural balance and health of the environment for the current and future generations --Many Aboriginal religions charge adult members with the responsibility for protection of the next seven generations
- Sustaining and enhancing social, cultural and economic opportunities for members
- Protecting Treaty and Aboriginal rights now and on behalf of future generations

The Canadian government is obligated to consult whenever infringement is possible. It must do so, according to Larcombe, with adequate understanding and acknowledgment of applicable Treaties and Aboriginal rights. It should do so early in the planning stages, and should provide Aboriginals adequate time and resources to prepare effectively for the consultation. Lastly, she emphasized the importance culturally appropriate communication methods.

Other speakers included **T. Wlodarczyk, of Gartner Lee Ltd.**, who discussed his survey of community traits near Canadian nuclear installations and hazardous waste facilities, and how certain traits may be of some predictive value in understanding how a community may perceive and respond to a project. **Robert Zelmer, Director, Low-level Radioactive Waste Management Office, Canada**, discussed the Port Hope Area Property Value Protection Program. The establishment of this program was frequently cited throughout the site visit and the workshop as key to community agreement with the Port Hope Area Initiative. Its purpose is to protect the needs of the area's property owners throughout the duration of the Initiative and into the first two years of long-term monitoring and surveillance of the waste management facilities.

SESSION II: How to Address Social Concerns?

A review of community relations strategies employed by nuclear utilities in Canada was provided by **Donna McFarlane, Ontario Power Generation (OPG)**. She discussed three case studies, the Point Lepreau Refurbishment, the communications program at Gentilly-2, and the Pickering A restart. McFarlane emphasized that no two communities are alike and that to be effective it was vital to be and to be seen as a good corporate citizen. By far the most dramatic example of improvement in the relationship between a surrounding community and a corporate organization was seen in the Pickering example. Prior to 1997, OPG had no public affairs strategies in place since the unit was shut down in 1993, and 87 percent of the community voted against restart. The company was viewed as arrogant and secretive, and media coverage was uniformly negative. Starting in late 1997, until mid-1999, OPG held annual community meetings, issued quarterly newsletters, met with municipal, provincial and federal politicians, made contacts throughout the community with business, education groups, charities, etc., and established a protocol to inform the community of all major and minor occurrences at the station. When reviewing its progress in mid-1999, OPG determined that it still needed to do

more. The company increased its commitment to public outreach significantly, and these increased efforts continue today.

Blake Holton, proprietor of Holton Flowers, spoke as a local businessman and community leader in Port Hope. He reflected on the environmental stigma the community endured for many years that hampered both residential growth and commercial development. Initial open houses to explain the project were not well attended because many people did not want their neighbors to know they were afraid. He noted that obtaining, or regaining, the trust of a community in this circumstance is vital. He recalled the intense skepticism of government [“If it’s not a health risk, then why do they want to spend so much to clean it up?”]. Holton stated that things began to turn around with the formation of a siting task force, a group of volunteers who were trusted neighbors, who shared in the interests of the community. People were far more receptive to information about the risks and the possible management options when it came from people they trusted.

Georgiana MacDonald spoke on behalf of the **Township of the North Shore and the Standing Environmental Committee of the Serpent River Watershed**, stakeholder groups affected by closed uranium mines in and around Elliot Lake. In her view, as a former employee of one of the mining companies responsible for the tailings waste, and now as a community activist, little has been done over 45 years of mining in the region that has produced any measure of public confidence. After closure of the mines additional factors have worked to erode, still further, local knowledge and public confidence. Some of these factors include: loss of mining company staff and expertise, loss of former industry worker base, changing land use (e.g. use of ATVs on former mine sites) use of remote monitoring to replace ‘in-person’ inspections, **absentee regulators, infrequent and unpublicized inspections by regulators**, [emphasis added], inability of local people to recognize and respond appropriately to deteriorating environmental conditions, complicated and poorly understood financial assurance agreements, inadequate resources to retain records, lack of long-term commitment, on the part of the mining companies or the government, to the sites or to public confidence. This failure to address current hazards works against the ability of citizens to develop confidence in the actions of future corporations or government authorities to act responsibly in the management and disposal of hazardous and/or radioactive wastes.

Addressing the social concerns about location of a municipal landfill was addressed by **Lawson Oates, Manager of Strategic Planning for the City of Toronto**. Oates provided an overview of the City of Toronto’s planning process for acquisition of residual solid waste disposal capacity, spanning almost two decades. Among the lessons learned in this context were: the value of an open and thorough public review process, the need for competent authorities to demonstrate a long-term commitment to safety and sustainable development, and the importance for public acceptability of integrated long-term monitoring. **Kathryn O’Hara, Associate Professor, School of Journalism, Carleton University**, offered her perspective on how to improve communication between scientists, the media and the public.

See Attachment 2 for a summary of the observations and conclusions reached during the roundtable discussions at the conclusion of this session.

SESSION III: Developmental Opportunities for Communities

Success to date in turning a major environmental problem into a developmental opportunity in the Port Hope Initiative was presented by **Rick Austin, Mayor of the Municipality of Port Hope**. The three communities affected by uranium processing wastes were able to work toward development of acceptable solutions, in part, because the cost of doing nothing became “very real” for the Port Hope citizenry. Key to success, in Mayor Austin’s view, was that the three solutions were community driven. Also, key was the Canadian government’s ability to acknowledge the need for the project to result in tangible assets for the community de-stigmatization of the waste, active and passive recreational facilities, assurances of property value protection, harbor remediation that would enable waterfront development, *etc.*

Larry Kraemer, Mayor of Kincardine and Chair of the Canadian Association for Nuclear Host Communities, spoke from the perspective of communities in Canada that host nuclear power installations and facilities. He observed that it is not enough to protect the public—the public needs to perceive that it is protected. First and foremost in fostering this perception is what Kraemer called “stakeholder clarity” --communication and understanding of who’s responsible for what. Effective and responsible communication takes both time and resources. In his view, if Canada is to be successful in meeting the objectives of the Nuclear Fuel Waste Act, consideration should be given to the following:

Safety of the facility must be paramount

Funding should be available to communities and interveners to participate adequately in the decision-making process

Provision should be made to assure protection of property values

Liabilities of hosting a repository must be balanced with assets to the host community—these don’t have to be strictly monetary, but they do have to be customized and distributed throughout the affected region

In closing, Mayor Kraemer paraphrased Albert Einstein (as did many others throughout the workshop) to the effect that

A problem cannot be solved at the same level of thinking that created it

Alun Richards, Cogema Resources, Inc. spoke about his company’s work with local communities in support of its mining operations in northern Saskatchewan. Cogema has attempted to maximize local involvement and has actively sought to build relationships with Aboriginal communities in the region. Fully half of the uranium mine site employees are residents of northern Saskatchewan, the vast majority of whom are Aboriginal. Richards described an intensive program to identify issues of greatest concern, and negotiate responsive solutions. From his experience, perception of risk is very much a function of communication, fairness, personal relationships and trust.

“Residents of northern Saskatchewan, like all other Canadians, are not prepared to accept environmental risks in return for economic opportunities. Environmental and economic discussions are usually interrelated. For example, compensation is guaranteed for hunters and trappers should their livelihood be affected. Economic development with a high level of environmental protection with local involvement is a

very significant issue in the north. As a result, northern support for uranium mining is closely tied to satisfaction on both environmental and economic issues. Despite occasional rhetoric, mutual trust and constant communication are crucial.”

Other speakers included **Len Simpson, Mayor of Pinawa, Manitoba**, who discussed the decommissioning liability and impact of AECL’s pullout of the Whiteshell laboratories in 1996. As a former laboratory employee, and now mayor of the community, he reviewed his community’s attempts to engage the government in negotiations for economically viable strategies for utilizing the Whiteshell facilities in an environmentally and socially responsible manner.

“...in contrast to the problems presented by others at this workshop, our issue is not with what the industry wants to do in our community but with what they are not doing!”

Closing out the session was **Martin Simard, Social Scientist, University of Quebec at Chicoutimi**, who reported on a study of public perceptions of quality of life issues in the vicinity of a large aluminum smelter in Quebec.

SESSION IV: NEA Specialists views (Thematic Rapporteurs)

NEI invited experts discussed their observations of the workshop from their specialists’ perspectives in Radiological risk assessment, Economics of local development, Philosophy and Stakeholder deliberations, respectively. Most intriguing among these talks was that of **Patricia Fleming, Professor of Philosophy and Associate Dean of Creighton University**. She complimented the forum for already joining the ethical deliberation about what should be the role of stakeholders. She challenged the forum to think hard about the ethical principles on which a commitment to stakeholder involvement rest. (e.g. autonomy, protection). She also called for an examination of competing ethical principles. She noted that concerns about the soundness of including stakeholders in the process were, in effect, concerns about ethical means. Forum members, in her view should be equally concerned with the ethics of both the means and the ends of the processes examined. She cautioned against confusing ethical relativism (*i.e.* ‘there are no universal values’) with ethical pluralism (*i.e.* ‘there are universal values, but they must be applied differently in different contexts’). She stressed that is very important to bring greater clarity to the roles of the various stakeholders, that is Who has legitimate moral standing to participate?, who has the duty to decide? to act?

Other rapporteurs included **Professor Denis Bard, National School of Public Health, Rennes, France, Reverend John Hetherington, Economic and Environmental Office, Cumbria County Council, UK, and Professor Martin O’Connor, Center of Economic and Ethics for the Environment and Development, University of Versailles-St. Quentin, France**. Formal reports of their observations of the workshop will be published with the workshop proceedings.