

Alan Ehrlich

From: kevin o'reilly <kor@theedge.ca>
Sent: July-02-12 10:43 PM
To: Alan Ehrlich
Subject: re: Filing for Giant Mine Public Registry on French Nuclear Waste Management Disposal Facilities. Preserving a Collective Memory for Future Generations..pdf; Making Nuclear Waste Governable. Deep Underground Disposal and the Challenge of Reversibility.pdf; radioactive-waste-management-act-280606.pdf; Radioactive Material and Waste Planning Act of 2006.pdf
Importance: High
Follow Up Flag: Follow up
Flag Status: Flagged

Alan

As discussed at the recent Giant Mine technical meeting held June 27-28, 2012 here in Yellowknife, please find attached several links and files for documents relating to the French experience with managing nuclear waste. We believe these documents are directly related to the concepts of perpetual care planning which has yet to begin in any substantive way for the Giant Mine. These documents in many respects show best practices and lessons that we can learn about perpetual care planning and management.

The specific documents that we would like to file are as follows. The relevance and highlights for Giant Mine perpetual care planning and management are briefly noted below.

We intend to draw upon these documents in our Technical Report and believe they will benefit the Review Board in its deliberations.

Kevin O'Reilly
Alternatives North

Financing of Radioactive Waste Management

This website page illustrates the need for long-term funding for management of waste sites including adequate external oversight. There are also strong provisions for public reporting and funding of ongoing research and development. Special taxes and clean-up of orphaned sites are also covered.

<http://www.andra.fr/radioactive-waste/radioactive-waste-disposal.htm>

Financing of Radioactive Waste Management

In France, operators are responsible for financing the management of their waste and the decommissioning of their nuclear installations.

It is important that financial resources (funds) will be sufficient and available when needed, notably to ensure a satisfactory safety level of the future operations. Several reports were published in France in 2005 on this subject.

Several actions were also launched by the European Union (Commission, Council, and Parliament) and the French administration participates in them.

In January 2005, the French Court of Accounts issued a specific report entitled "the decommissioning of nuclear installations and management of radioactive waste". This report acknowledges the progress made for several years in the field of financing but includes a number of recommendations to improve the existing situation. The annual report (2006) of the Court contains a follow-up of its 2005 specific report.

The total amount of future expenses (liabilities) for decommissioning and radioactive waste management, for the three major nuclear operators (EDF, AREVA, CEA), has been estimated by them at about 65 billions Euros (2004 value, i.e. undiscounted) corresponding to a discounted value of about 37 billions Euros (3% discounted rate).

Each nuclear operator (EDF, AREVA, CEA) manages its fund which stays inside the company. However, the situation differs from one company to the other. AREVA has already earmarked assets corresponding to the total anticipated expenses estimated by this operator. Answering a remark of French Court of Accounts, EDF decided in September 2005 to accelerate the rhythm of assets collection in the next years in order to reach, in 2010, the necessary level of provisions estimated by EDF. CEA manages two funds (one for its civilian centres and the other for centres linked to the deterrent force) which will need to be developed in the future.

The 2006 Planning Act on the sustainable management of radioactive materials and waste (28 June 2008) stipulates the following, in its article 20:

- operators of INBs shall assess prudently the costs of dismantling their installations and management of their spent fuel and radioactive waste,
- operators of INBs shall establish reserves to cover the above-mentioned costs and earmark the necessary assets for the exclusive coverage of these costs. They shall account separately for these assets which shall present a sufficient degree of security and liquidity to meet their purpose,
- except where the State wields its powers to get the operators to respect their obligations to dismantle their installations and manage their spent fuels and radioactive waste, nobody can claim to have a right over the assets, even on the basis of the Commercial Code,
- operators shall transmit every three years to the administrative authority a report describing the assessment of the costs, the methods applied for the calculation of these costs and the choices adopted with regard to the composition and management of the assets earmarked to cover the reserves. The report shall include a plan for constituting the assets. Every year operators shall transmit to the administrative authority a note updating this report and inform it without delay of any event likely to modify its content. The first reports were issued mid 2007,
- if the administrative authority finds insufficiencies or adequacies, it can, after hearing the operator, the necessary measures for the operator to regularise his situation, and, if need be, the administrative authority can order, on pain of a penalty payment, the constitution of the necessary assets,
- a national financial evaluation commission is created to assess the funding of the costs in dismantling INBs and managing spent fuel and radioactive waste. This commission will issue a report which will be made available to the public.

The decree of 23 February 2007 and the ministerial order of 21 March 2007 define the categories of operations (decommissioning activities and management of radioactive waste) that are covered by the provisions of the 2006 Planning Act. The authority in charge of the survey of the compliance of the Article 20 of this Planning Act is the General Directorate for Energy and Climate (DGEC). The new regulation requires an assessment by ASN of the reports on the cost of the future decommissioning/dismantling operations and the management of radioactive waste. This regulation requires also that the assets of the licensees to cover the future costs must be selected in a panel of particular secure financial products with a sufficient degree of liquidity. The prescriptions of the 2006 Planning Act concerning these matters are notably based on the previous recommendations of the ASN.

Apart from this scheme which concerns only long-term liability of waste producers both in terms of dismantling and waste management cost, the necessary R&D is financed through an additional INB tax (research tax), which is transferred to a fund, as prescribed by the 2006 Planning Act.

A similar scheme than the previous one with two other additional INB taxes (an outreach tax and a technological diffusion tax), has been implemented, as prescribed by the 2006 Planning Act to fund the economic development scheme of the local municipalities

and districts concerned by the project of geological repository for high-level and long-lived intermediate-level radioactive waste, through their respective Public Interest Group (GIP).

Specific public funding has also been implemented in the framework of the 2006 Planning Act to participate, if necessary, to the collection and management of waste from the "small-scale nuclear" activities, including "household" waste (owned by private individuals) and as well to address the issue of clean-up and rehabilitation of orphan polluted sites (usually from former industries).

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Still on the basis of the "polluter pays" principle and for other types of waste, Andra costs relating to either industrial operations (CSM monitoring, CSFMA and CSTFA operating cost) or R&D (FA-VL project for low-level long-lived waste) are financed through bilateral conventions between the respective concerned waste producers and Andra (for instance on the basis of direct cost for R&D and monitoring, or delivered volumes with a possible financing scheme of the investment for industrial operations).

Program Act on the Sustainable Management of Radioactive Materials and Waste

This federal act contains some remarkable provisions to ensure strong public involvement and oversight of nuclear waste management. For example, testing the reversibility of nuclear waste sites (for a minimum of 100 years). A research tax is to be implemented to provide funding for the national waste management agency.

<http://annual-report2006.asn.fr/PDF/radioactive-waste-management-act-280606.pdf>

<http://www.andra.fr/download/andra-international-en/document/editions/305va.pdf>

Disposal Facilities: Preserving a Collective Memory for Future Generations

This document provides some details on how the French intend to preserve a comprehensive archival paper record of each nuclear waste disposal facility in the national archives and at the actual site. Summary reports are to be copied, updated and distributed throughout France. The first site's archival record is over 60 linear metres. A site journal for each location is to be kept and updated regularly using monitoring results and inspections. Site records are also kept with land registry offices to ensure a full record accompanies land use designations and controls. There is little evidence on the public registry of any of this sort of thinking for the Giant Mine.

<http://www.andra.fr/download/andra-international-en/document/editions/299.pdf>

Making Nuclear Waste Governable. Deep Underground Disposal and the Challenge of Reversibility.

Reversibility is the core concept for France in its nuclear waste management. This extensive document is a collaboration amongst social scientists and engineers based on the public debate around nuclear waste disposal where reversibility became a prerequisite for social acceptance of deep disposal. This sort of debate has yet to happen regarding the perpetual care of Giant Mine.

<http://www.andra.fr/download/andra-international-en/document/editions/381-va.pdf>

Managing Safely Radioactive Waste over the Long Term (20 minute video on ANDRA French National Radioactive Waste Management Agency)

An interesting video that highlight nuclear waste management in France and some of the same issues we are faced with in the perpetual care of the Giant Mine.

www.andra.fr/radioactive-waste/radioactive-waste-disposal.htm