



CANADIAN ENVIRONMENTAL LAW ASSOCIATION
L'ASSOCIATION CANADIENNE DU DROIT DE L'ENVIRONNEMENT

October 15, 1999

Parallex Test Documentation
Transport Dangerous Goods Directorate
Transport Canada
Place de Ville
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Attention: Ms. Karen Plourde

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cc by email to: mox@tc.gc.ca

Re: Parallex Test Documentation

These comments are made by Canadian Environmental Law Association as to documents filed by Atomic Energy of Canada Limited in support of its application for approval of shipment plans for the Parallex Test at Chalk River. The documents filed include the U.S. MOX test quantity transportation plan; the Russian MOX test quantity transportation plan; the U.S. MOX test quantity emergency response assistance plan and the Russian MOX test quantity emergency response assistance plan.

As confirmed to the writer by Transport Canada, the comment date was extended to October 15, 1999 because of delay in posting the last listed document.

Canadian Environmental Law Association (CELA) is a not for profit legal clinic, federally incorporated in 1970. CELA takes an active interest in environmental, human health and safety

issues arising from nuclear power production in Canada. CELA's interest in this regard includes the legislative, regulatory and policy regimes applicable to nuclear power production in Canada. CELA provides legal case representation and summary advice to clients in environmental law matters; provides public environmental legal education and advocates for environmental law reform in the public interest. CELA's interests include the protection of the environment and Canadians from environmental and ecosystem hazards, and from environmental health and safety hazards.

CELA opposes the granting of the requested transportation permits to AECL for the reasons outlined below. CELA submits that Transport Canada deny the requested transportation permits to AECL for both the U.S. MOX fuel shipment and the Russian MOX fuel shipment described in the applications.

- **Notice**

The first objection to the issuance of the transportation permits is based upon the lack of appropriate notice to the affected communities. No direct notice to municipal councils was provided prior to the decision by AECL to import plutonium from dismantled nuclear weapons for the parallel tests. Furthermore, 28 days notice is an inadequate time frame for communities to learn of the project; and to inform themselves in order to make comments upon the proposal.

- **Lack of Community Consent**

Almost none of the Canadian communities along the proposed transportation routes have consented to the shipments of plutonium through their communities, whether by municipal representatives or otherwise. In fact, an overwhelming number of communities have actively objected to the shipments of plutonium through their communities and have passed formal resolutions to that affect after formal debate in their municipal councils.

- **Lack of Benefit to Affected Communities**

The communities located along the proposed transportation routes will bear the risks of shipment; but will derive no benefit from the shipments.

- **Discrimination against Rural and Northern Communities**

Almost all of the communities located along the proposed transportation routes are rural or northern communities. They lack the population density of other possible routes and the routes through their communities were apparently chosen in part for that reason. Accordingly, residents of those communities will bear a disproportionate share of the risks of plutonium fuel shipments compared to southern Canadian or more densely populated regions of Canada.

- **The Nuclear Liability Act**

Presumably the Nuclear Liability Act would apply to any accidents with respect to the plutonium fuel shipments. The cap on liability provided by that legislation means that completely inadequate liability insurance is in place in case of any accident that affected property, environment or human health. It further means that the residents along the proposed shipping routes are bearing the brunt of a major subsidy accorded to AECL by way of the Nuclear Liability Act since they would bear the consequences of any accident without mandatory compensation beyond the totally inadequate NLA provisions.

- **Lack of Need**

There is no Canadian need for the MOX fuel shipments. There is no current plan to burn MOX fuel in Canadian CANDU reactors. Ontario Hydro (now Ontario Power Generation) has denied any further interest in use of MOX fuel in its reactors, for instance. MOX fuel is not a fuel of choice for CANDU reactors. MOX fuel is expensive to process and as described further below presents extremely large additional risks to Canadians compared to non-enriched uranium used in CANDU reactors.

- **Obligations to future generations**

By taking plutonium from the U.S. and Russia, and burning it as MOX in Canadian nuclear reactors, Canada will be assuming responsibility for future storage and safekeeping of the resulting fuel waste. The AECL transportation plans state, for example, that title to the plutonium will transfer to AECL at the Canadian border from the U.S. Department of Energy. A very large proportion of the plutonium in the fuel will remain even after use as fuel. The waste fuel will remain extremely hazardous and will present extreme hazard to the environment, and to human health and safety for millennia to follow. Canadians will be leaving a legacy of waste that is almost impossible to guarantee can be safely dealt with, to hundreds of generations to follow us.

- **Not the best method to treat MOX fuel**

Vitrification of plutonium from the dismantled weapons in the country of origin is far preferable to transporting it across continents and oceans. Vitrification renders the fuel less accessible in case of accident or terrorism. Dealing with the waste in country of origin keeps the waste closer to its source and therefore results in far less risk from transportation.

- **Not necessary for Canadian support for nuclear weapons non-proliferation**

Canada can demonstrate credible and effective support for nuclear weapons non-proliferation without taking plutonium for MOX fuel. Furthermore, use of MOX fuel in

Canadian reactors would legitimize world trade in weapons grade plutonium, greatly increasing risk of that fuel falling into the hands of terrorists or unstable governments.

- **The MOX transportation plan is constitutionally invalid.**

The MOX transportation plan will violate Canadians' Charter rights to security of the person (section 7 of the Charter) and Aboriginal Peoples' existing aboriginal and treaty rights as protected by the Constitution (section 35 of the Constitution Act, 1982).

- **Accident or release threatens ecosystem health and human health and safety.**

In case of accident that does result in release of plutonium to the atmosphere, residents and the ecosystem along the transportation routes and in the pathways from the point of release would be exposed to undue risks of radiation induced adverse health effects, and long term property damage. Similarly, plants, animals, and other species, along with their habitats and the functioning of the ecosystem would be impaired; perhaps severely impaired, depending upon the release.

- **Canadian Environmental Assessment Act**

In addition to the other submissions herein, no further consideration to approval of the requested plans by AECL ought to be considered until the proposal is remitted to a panel review under the Canadian Environmental Assessment Act. The Minister of Transport ought to recommend to the Minister of Environment a referral of the matter to a panel review, which terms of reference must be broader than the transport issues alone, in accordance with the *CEAA*. We disagree with AECL's assessment that an environmental assessment under CEAA is only required in the event that "Canada was to consider participation in a large-scale MOX fuel utilization program". An environmental assessment of the current test plans and the requested transportation permits is also required.

- **Atomic Energy Control Board Approval Unclear**

From AECL's Transportation Plan for the Los Alamos to Chalk River Shipment, at page 2 of 26, a statement is made that "AECB is also reviewing the proposed small-scale tests to confirm that they are within the existing licensed scope of CRL facilities." Transport Canada ought to give no further consideration to the matter without such confirmation. Obviously, public participation in the AECB proceedings to amend any existing licences to consider the Paralex project tests must be required and hearings held by that agency.

- **The proposal is contrary to the recommendations of the Standing Committee on Foreign Affairs and International Trade**

The December, 1998 report of the Standing Committee on Foreign Affairs and International Trade recommended that the Government “reject the idea of burning MOX fuel in Canada because this option is totally unfeasible, but that it continue to work with other governments to address the problem of surplus fissile material.” (Recommendation #8 of that Report)

- **Municipal Fire Departments Oppose the Transportation Plan & Inadequate State of Ontario’s Emergency Preparedness**

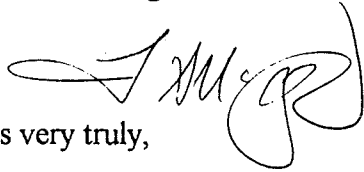
Not only have municipal counsels all along the proposed transportation routes passed formal resolutions in opposition to the plans, but many of their fire departments have expressed unpreparedness to deal with any emergency dealing with plutonium shipments. More generally, the province of Ontario has a completely unready and inadequate emergency response capability with respect to any serious accident involving release of highly radioactive materials. Problems with this capability range from lack of capacity to transport radiation injured persons for medical treatment, to lack of appropriate facilities for such treatment. Even in the municipalities in which CANDU nuclear plants are located, which would be expected to be the most prepared, all aspects of the emergency response network are unprepared for radiation accidents. The remainder of the province is even worse in terms of capability to respond to such accidents. Furthermore, capability to respond to terrorist acts is not reflected in the plans.

- **Accidents Can Happen**

Regardless of the optimism of those who advocate that the possibility of accident is low, accidents of calculated “low probability” can and, unfortunately, do happen; with unexpected and severe consequences. That such accidents can happen even with fuel reprocessing was all too tragically demonstrated with the recent Japanese fuel reprocessing accident. No nuclear - associated accident is ever “expected” or welcome. The mere possibility of accident, together with the complete lack of acceptance by the communities who would bear the consequences of such an accident, and the woeful state of Ontario’s nuclear emergency preparedness all combine to dictate that the requested transportation permits to AECL for the U.S. MOX fuel transportation and the Russian MOX fuel transportation plans must be denied.

We would be happy to provide any further information, clarification, submissions or details as to the above noted submissions.

As requested, Transport Canada may add this submission to Transport Canada's web site for public viewing if so desired.



Yours very truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

per

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