## Steam Generators: Radioactive Cargo is Mostly Plutonium

Several prominent non-governmental organizations are accusing Bruce Power (BP) of misleading the public, the media and decision-makers about the kind of contamination inside the cargo of 16 radioactive steam generators it plans to ship to Sweden, by neglecting to state that it is mainly plutonium.

BP has applied to the Canadian Nuclear Safety Commission (CNSC) for a licence to transport the radioactive cargo through the Great Lakes and St. Lawrence Seaway en route to Sweden. CNSC staff has acknowledged that the proposed shipment exceeds by at least 6 times the maximum amount of radioactivity normally allowed on a single vessel.

BP has trivialized the danger of this proposed shipment by referring to the cargo as "low level radioactivity." But according to BP's own figures, about 90 percent of the mass of radioactive material inside the steam generators is plutonium -- a highly toxic, long-lived radioactive poison. On its web site, Studsvik – the Swedish company that plans to melt down most of the radioactive metal and sell it as scrap for use in any number of commercial products – calls the innards of the steam generators "highy radioactive"

"Each steam generator contains five plutonium isotopes with an admixture of at least eighteen other man-made radioactive materials. To imply that this radiotoxic cocktail poses only a low-level of risk is misleading" said Dr. Gordon Edwards of the Canadian Coalition for Nuclear Responsibility. "It is extraordinarily dangerous stuff, and will remain toxic for thousands of years."

The plutonium inside the steam generators gives off very little highly penetrating radiation, and therefore cannot be detected from the outside. But it gives off alpha radiation, which is 20 times more biologically damaging than beta or gamma radiation per unit of energy when deposited in living tissue. Any accidental spill will pose a serious long-lived contamination problem.

"Simple arithmetic shows that the amount of plutonium-239 inside the 16 steam generators is enough, in principle, to give more than 52 million atomic workers their maximum permissible 'body burden' of 0.7 micrograms," said Dr. Marvin Resnikoff of Radioactive Waste Management Associates in Vermont.

"And if the other plutonium isotopes inside the steam generator (plutonium-238, plutonium-240, plutonium-241 and plutonium-242) are factored in, the number of workers that could be overdosed is doubled," added Dr. Edwards.

BP's planned shipment of 1600 tonnes of radioactive waste through the Great Lakes and St. Lawrence has been met with concerted opposition from over 100 municipalities and aboriginal communities along the route, as well as from more than 70 NGOs. In response to this public outcry, CNSC held a public hearing in September with 79 intervenors. The outpouring of concern at that hearing led CNSC to extend the comment period for intervenors to give added input until November 22 -- an unexpected and unprecedented development.

Most of the intervenors want Bruce Power to cancel the shipment and return to the original plan as laid down in a 2006 Environmental Assessment: to store the steam generators on site indefinitely as radioactive waste along with all the other radioactive waste materials produced by the Bruce reactors. "Radioactive waste should be isolated from the human environment, not transported halfway around the world, and certainly not dispersed into consumer products," said Kevin Kamps of Beyond Nuclear.

But if BP insists on pushing forward with its proposal, intervenors feel strongly that there must be an environmental assessment of the entire project, including not only the initial transport to Sweden but the recycling of the radioactive metal and the return back to Canada of up to 30 percent of the original waste.

"The Great Lakes and St. Lawrence River constitute a priceless natural resource, providing drinking water for 40 million people, and supporting a multibillion dollar fishery. If that does not trigger an environ-mental assessment, then something is wrong with the system," said Kay Cumbow of Citizens for Alternatives to Chemical Contamination in Michigan.

## Contacts:

- Dr. Gordon Edwards, (514) 489 2665 [home] (514) 839 7214 [cell] ccnr@web.ca President, Canadian Coalition for Nuclear Responsibility, Montreal.
- Dr. Marvin Resnikoff, (802) 732 8008 [work] radwaste@rwma.com Radioactive Waste Management Associates (Bellows Falls, Vermont),
- Kevin Kamps, (240) 462-3216 [cell] kevin@beyondnuclear.org Beyond Nuclear (Takoma Park, Maryland)
- Kay Cumbow, (810) 346 4513 kcumbow@greatlakes.net Citizens for Alternatives to Chemical Contamination (Michigan),