Destruction equipment for the second main destruction building: In order to double the destruction capacity of the Shchuch'ye facility, Canada has committed $55 million for the critical nerve agent destruction equipment. The equipment will be installed by Russia in the second main destruction building throughout 2007 and 2008, when operations are scheduled to begin. The specialized equipment being provided by Canada includes:

- two destruction process lines (DPLs) that will handle the shells, drill and drain them of the nerve agent;
- a leakers treatment area to deal with leaking munitions (as they are aging and decaying) in a safe manner;
- catalytic reactors (filters) that will provide the final cleansing of any inert gaseous byproduct of the demilitarization process;
- a Venturi tube scrubber that will receive the overhead gas of the metal parts furnace (MPF) pollution abatement system;
- an automatic control system for the DPLs; and
- a variety of additional equipment to complement the two DPLs.

In February 2007, the last batch of catalytic reactors was delivered to site and handed over to the Russian authorities. The remaining equipment for the second main destruction building will be delivered to site throughout 2007 and early 2008.

DISMANTLEMENT OF DECOMMISSIONED NUCLEAR-POWERED SUBMARINES

"In the early 1990s, dozens of nuclear submarines with spent fuel still in their reactors were just part of the fleet in various naval bases. They represented a great terrorist risk as well as a potential threat to the environment. This threat was not only to the city of Severodvinsk; it was an environmental risk for the entire north-west region of Russia and even to the Arctic as a whole."

— Nikolay Kalistratov, Director General of the Zvezdochka Shipyard, July 2006.

SPENT NUCLEAR FUEL

Each nuclear-powered submarine has two pressurized water reactors using highly enriched uranium fuel. Soon after being brought to the shipyard, the reactor section is prepared for defuelling by cutting away the pressure hull and placing a containment building over the reactor section. Each of the over 200 fuel assemblies from each reactor is individually removed using specialized equipment and placed inside a shrouding assembly within a storage and transportation flask. Once the defuelling process has been completed, the highly radioactive SNF within the special flasks is transported by train, escorted by armed guards, to a processing facility in the Ural region.

Background

Following the collapse of the Soviet Union, nearly 200 decommissioned nuclear-powered submarines (NPS) from Russia's northern and Pacific fleets required dismantlement.

Russia's legacy of decommissioned NPS presents a profound and multidimensional problem for the international community. Many of these submarines have spent over a decade rotting away at their berths. The remaining submarines in both northwest and far east Russia present proliferation, terrorist and environmental risks. The removal of these submarines, therefore, eliminates a range of threats in addition to being a key international confidence-building measure. This problem was identified by Russia as one of its highest priorities under the Global Partnership.

With assistance from the international community, this issue is being addressed in an expeditious manner. It is anticipated that with continued support of the Global Partnership members, the problem will be eliminated by 2012.