Dismantling a nuclear submarine takes place in 13 stages. These include extensive preparations, transportation, defuelling of the nuclear reactors, dismantlement, on-site handling of highly radioactive materials, safe storage of reactor compartments and transfer of spent nuclear fuel to final storage. Canada, Germany, Italy, Japan, Korea, Norway, the U.K., the U.S. and others are all currently engaged in helping Russia tackle this problem.

## Progress Made in 2007-2009

Canada's initial commitment to the dismantlement of 12 decommissioned NPS in northwestern Russia between 2004 and 2008 was completed on schedule on March 31, 2008. Twenty four nuclear reactors from 12 NPS were defuelled at the Federal State Unitary Engineering Enterprise Ship Repair Centre Zvyozdochka in Severodvinsk. Eleven Victor Class NPS were fully dismantled.

## Teaming Up to Dismantle The World's Largest Nuclear Submarine

Canada took the initiative in forming a cooperation project to dismantle a Typhoon Class ballistic missile submarine. Canada led the defuelling of the submarine's twin reactors; the U.S. funded the elimination of the submarine's strategic missile launcher system; and the Russian Federation is dismantling the submarine.



Dismantling a nuclear submarine entails 13 phases including transportation to the shipyard, reactor defuelling, placement in a dry dock, dismantlement, storage and transport of the spent nuclear fuel.