

Nuclear safety



European Bank
for Reconstruction and Development

February 2011

Chernobyl 25 years on: New Safe Confinement and Spent Fuel Storage Facility

26 April 2011 marks the 25th anniversary of the accident at the Chernobyl nuclear power plant. Since then Ukraine and the international community have been working continuously on overcoming the legacy of the accident and converting Chernobyl into a safe and secure site.

Today two major technical tasks remain: The first is to make the destroyed unit 4 environmentally safe. The second is to safely and securely store the spent nuclear fuel from reactors 1 – 3. This is the most important stage in the decommissioning of these units.



www.ebrd.com/chernobyl
www.chernobyltwentyfive.org



The EBRD manages six donor funds providing support to enhance nuclear safety. Some 30 donors, including the G-8 countries and the European Commission, have pledged more than €3 billion so far to funds that include:

- ▶ the Nuclear Safety Account (NSA)
- ▶ the Chernobyl Shelter Fund (CSF)
- ▶ three international decommissioning support funds for Bulgaria, Lithuania and the Slovak Republic
- ▶ the “Nuclear Window” of the Northern Dimension Environmental Partnership Support Fund (NDEP).

Nuclear Safety Account

Initially, international assistance provided through EBRD-managed funds was concentrated on short-term safety upgrades of first generation, Soviet-designed nuclear power plants, with the aim of reducing the risks before their early closure.

Today, the Nuclear Safety Account funds the construction of a storage facility for spent nuclear fuel from the

operation of the Chernobyl Nuclear Power Plant.

The closure of Chernobyl unit 3 in 2000 is an example of the successful outcome of this support. Similarly, in 2002 Kozloduy units 1 and 2 in Bulgaria were closed and units 3 and 4 in 2006. Ignalina 1 in Lithuania closed in 2004 and unit 2 in 2009. Bohunice V1 (units 1 and 2) in the Slovak Republic were closed in 2006 and 2008 respectively.

Decommissioning support

Today the main focus is on the decommissioning of outdated power plants, for which the necessary infrastructure often is not in place. EBRD-managed funds are used for the construction of spent fuel storage and radioactive waste management facilities, providing for treatment and long-term storage as well as other goods, works and services required to support the decommissioning process.

The decommissioning of power plants is a costly undertaking. The need to





Plan provides for the construction of a new safe confinement to enclose the destroyed reactor



compensate for the resultant loss of electricity generating capacity is an even greater challenge. For this reason the decommissioning funds also support measures in the energy sector and projects to increase energy efficiency, including on the demand side. Examples include co-financing of the Sofia district heating modernisation, energy efficiency projects in the Bulgarian small business and residential sector and the construction of a 450 MW gas fired combined cycle power plant in Lithuania to help compensate for the lost Ignalina generating capacity. Donors have already committed more than €1.5 billion to the three decommissioning funds with the European Community being the biggest contributor by far.

Chernobyl Shelter Fund

In 1986 the accident which destroyed unit 4 of the Ukrainian nuclear power plant Chernobyl shook the world. To this date it is one of the major tasks financed through EBRD-managed funds to transform the unit into an environmentally safe state. The CSF-financed Shelter Implementation Plan provides, among other things, for stabilisation of the shelter built around the ruins of unit 4, a comprehensive monitoring system and the construction of a

new confinement structure to safely enclose the temporary structure from 1986. According to latest estimates the undertaking will cost more than €1.5 billion.

Northern Dimension Environmental Partnership – Nuclear Window

The NDEP provides grant funding to address severe environmental problems in north-west Russia. NDEP's "Nuclear Window" funds measures to deal with the legacy of the operations of the Russian nuclear fleet in NW Russia, in particular with the resulting spent nuclear fuel and radioactive waste. These measures are urgently needed to control a very serious hazard to the environment and to address non-proliferation issues associated with these materials.

The partnership consists of Russia, the European Union, international financial institutions (the EBRD, the Nordic Investment Bank, the European Investment Bank and the World Bank) and donor governments. The EBRD manages the NDEP Support Fund, now at €311 million, which ensures the effective delivery of international support. NDEP deals with water and waste-water treatment, waste and energy efficiency.

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