

S T A T E M E N T

**by the Governor and Permanent Representative of the Republic of Azerbaijan
to the International Atomic Energy Agency**

H.E. Ambassador Galib Israfilov

at the IAEA Ministerial Conference on Nuclear Safety

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**Mr. President,
Director General,
Excellencies,
Ladies and Gentlemen,**

Azerbaijan highly appreciates the invaluable efforts of the President of the Conference, Ambassador Antonio Guerreiro, in preparation for the Conference.

I would like to express my gratitude to the Director General H.E. Mr. Yukiya Amano for convening the IAEA Ministerial Conference on Nuclear Safety and all IAEA staff for excellent organization of this Conference.

We all have received with anxiety the news of devastating earthquake and tsunami, followed by a crisis at the Fukushima Daiichi Nuclear Power Plant (NPP) in Japan in early March of this year. Azerbaijan shares the grief of and expresses solidarity with the Japanese people and Government. Azerbaijan highly appreciates the swift and decisive action taken by the Japanese authorities and stands by international community in efforts to help Japan overcome the tragic outcomes of the crisis.

Azerbaijan examined the preliminary assessment report prepared as a result of visit of the IAEA Fact-Finding Mission to Japan conducted from 24 May to 2 June 2011 and expects that the lessons learned from the accident can help improve nuclear safety around the world.

Excellencies,

Twenty five years after the disaster in Chernobyl, the Fukushima Daiichi crisis has again taught us a terrible life lesson that the global nuclear safety requires improvement and the world still remains vulnerable before nuclear accidents and emergencies.

We find this Conference as a good opportunity to draw parallels with the evolving situation in the South Caucasus region.

Azerbaijan is worried with the functioning of Metsamor NPP in neighboring Armenia, which is situated in a highly seismically active zone and is a source of potential danger. Metsamor NPP is one of the mere handfuls of remaining nuclear reactors of its kind that were built without primary containment structures. According to the 1999 IAEA final report of the Programme on the Safety of nuclear power plants, during the period of operation a number of small accidents and fires took place in Metsamor NPP.

In accordance with EU-Armenia European Neighborhood Policy (ENP) Action Plan, in 2007 specific actions had to be taken by the Government of Armenia for the early decommissioning of the Metzamor Nuclear Power Plant, which was considered as inherently unsafe. The EU, in particular, classified the light water-cooled reactors VVER-440 Model V230 as the “oldest and least reliable” category of all the Soviet reactors built in Eastern Europe and the former Soviet Union.

Currently, Armenian Government initiated the construction of a new reactor to replace the old one by 2018. Under the Espoo Convention on “Environmental Impact Assessment in a Transboundary Context” its Parties are required to conduct with the participation of neighboring states an environmental impact assessment procedure with respect to activities that are likely to cause significant transboundary impact, and should officially share the outcomes of such assessment with them. Unfortunately, so far Armenia has not provided the neighboring states with necessary information on environmental impact assessment of Metsamor NPP. Nor has it allowed Azerbaijan, Georgia and Turkey to participate in international assessment of the planned reactor.

We are worried over such attitude of Armenia which is aimed at preventing the access of neighboring states to the information on Metsamor NPP and in general we stand for closure of the Metsamor NPP.

Let us not forget that nuclear danger knows no border, and security and well-being of nations of South Caucasus region as well as of future generations depends on the actions taken today at a domestic and regional scale.

The imperative for ensuring the safety of nuclear plants is availability of transparent and detailed analysis and verification of the existing and planned nuclear plants with the involvement of the IAEA, relevant international organizations and countries-concerned.

Azerbaijan will continue to provide its contribution to the nuclear safety in the region and counts on support and cooperation of the IAEA in this matter.

Thank you very much.

Enclosure: Fact-sheet on Metsamor Nuclear Power Plant

Metsamor Nuclear Power Plant: Danger for the South Caucasus Region

Construction, type of reactor and location in the seismic active zone:

Construction of Metsamor NPP began in 1969. Two model VVER 440/V-230 reactors each of 407.5 MWe gross (376 MWe net), were built at Metsamor and supplied power from 1976 and 1980 respectively. Design life was 30 years Metsamor¹.

This type reactor is an example of one of the earliest pressurized-water nuclear plant designs, developed by the Soviets between 1956 and 1970. VVER 440s share one characteristic with Chernobyl that has been a continuing concern to many who live nearby. Metsamor NPP is one of the mere handfuls of remaining nuclear reactors of its kind that were built without primary containment structures².

VVER 440s rely on an "accident localization system," designed to handle small ruptures. In the event of a large rupture, the system would vent directly to the atmosphere. "They cannot cope with large primary circuit breaks," the Nuclear Energy Institute's 1997 Source Book on Soviet nuclear plants concluded³. "As with most Soviet-designed plants, electricity production by the VVER-440 Model V230s came at the expense of safety."⁴

VVER-440/230-270 type reactors developed as civilian power plants, similar to international pressurized water reactors (PWR). It employs low-enriched uranium oxide fuel held in thin metal-clad rods that are cooled by pressurized light water. The pressurized water from the reactor is pumped through steam generators, where steam is produced by transfer of heat to the separate secondary coolant. The steam is then routed to the turbine generators to produce roughly 440 mega watts of electricity. These reactors also don't meet international standards, they have many design deficiencies including the lack of a containment building, inadequate fire protection systems, unreliable instrumentation and control systems, and deficient systems for cooling the reactor core in case of an emergency⁵.

¹ Decommissioning Costs of WWER-440 Nuclear Power Plants: IEAE technical document 2002. Page 11; World Nuclear Association, Nuclear Power in Armenia <http://www.world-nuclear.org/info/inf113.html>.

² National Geographic Magazine, Marianne Lavelle and Josie Garthwaite, April 11, 2011 <http://news.nationalgeographic.com/news/energy/2011/04/110412-most-dangerous-nuclear-plant-armenia/>

³ Nuclear Energy Institute "Soviet-Designed Nuclear Power Plants in Russia, Ukraine, Lithuania, Armenia, the Czech Republic, the Slovak Republic, Hungary and Bulgaria. 1997. Page 17.

⁴ Ibis, page18.

⁵ Ibis. <http://insp.pnnl.gov/-profiles-reactors-vver230.htm>

The EU, in particular, classified the light water-cooled reactors VVER-440 Model V230 as the “oldest and least reliable” category of all the Soviet reactors built in Eastern Europe and the former Soviet Union⁶. Over the past decade, the European Union, living in close proximity to the old Soviet plants, used leverage where it could to get some of them shuttered. Four VVER 440 units in Bulgaria and two in Slovakia were closed as a condition of those countries joining the European Union.

Metsamor NPP is situated in a highly seismically active zone and is a source of potential danger.

Closing and restart of the Metsamor NPP:

Metsamor power plant in Armenia was closed shortly after the December 1989 earthquake (killed 25,000 people and left 500,000 homeless). It is worth to remind that, the epicenter of the earthquake was situated about 100 kilometers away from Metsamor.

The United States and other G-7 countries have been vehemently opposed to the restart of the Metsamor reactors due to safety concerns. Both units were listed in the Department of Energy’s report on the most dangerous nuclear reactors⁷. Despite international opposition, however Unit 2 at Metsamor was restarted in October 1995.

In accordance with the World Nuclear Outlook 1995 issued by U.S. Department of Energy, Armenian Regulatory Agency allowed the restart of Metsamor unit-2 without many upgrades that international experts believed were needed⁸.

Although Armenia requested financial assistance to restart these reactors, none was granted by the G-7 countries in March 1994.

Because of its age and that the plant is situated in the middle of the most seismically active and dangerous fault, it was determined by IAEA experts that, the Metsamor NPP unit-2 can operate only until the end of 2004, provided, if the facility complies with all the IAEA’s applicable safety and technological upgrading requirements.

Prior to restart of Metsamor unit-2, the Armenian Government has signed an agreement with IAEA and European Union to receive necessary financial and technological support to upgrade and operate the unit-2 close to the international standards, and has agreed to close permanently the Matsemor unit-2 by the end of year 2004⁹.

⁶ The Jamestown Foundation, Eurasia Daily Monitor, Volume: 6, Issue: 103, May 29, 2009, http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=35055

⁷ US Department of Energy, Office of Energy Intelligence, *Most Dangerous Reactors*, (Washington D.C., Department of Energy, May 1995)

⁸ U.S. Department of Energy, Office of Coal, Nuclear, Electric and Alternate Fuels: *Energy Information Administration/World Nuclear Outlook 1995*, Page 14. http://www.iaea.org/inis/collection/NCLCollectionStore/_Public/27/026/27026471.pdf

⁹ U.S. Department of Energy, Office of International Nuclear Safety and Cooperation, Status report “Ten years of safety improvements” 2003, page 51.

Armenia also turned down the EU's loan offer to finance Metsamor's shutdown. Alexis Loubser, the head of the EU delegation in Yerevan, said the £67 million of aid would be frozen until the Armenian government gave a definite date for the closure of the power station. "In principle, nuclear plants should not be built in highly active seismic zones. This plant is a danger to the entire region. When the agreement was signed in 1998 to close it in 2004, we wanted to close it as quickly as possible. "We realise that until alternative energy sources are in place it is not possible to do that, but it might be possible by 2006, and certainly could be by 2010." He was also alarmed at the method of delivery of nuclear fuel, using Russian transport planes. "It is the same as flying around a potential nuclear bomb. It does not happen anywhere else in the world; transportation is by sea or rail."¹⁰

Safety of the Metsamor NPP:

The operational safety review performed by the IAEA Operational Safety Review Team (OSART) from 16 May to 2 June 2011 in the Metsamor NPP, intended just to observe operational safety performance at the nuclear power plant, and whose report will be kept in secret by Armenian Governments. OSART mission reviewed the factors affecting the management of safety and the performance of personnel¹¹. However, Design Safety Review, Safety Assessment Capacity and Competency Review, Review of Accident Management Programmes, Periodic Safety Review and Seismic Safety Evaluations are very important in order to measure and realize the dangerous situation in the Metsamor NPP.

Little information is available regarding Armenia's management of spent fuel.

¹⁰ <http://www.guardian.co.uk/environment/2004/jun/02/energy.europeanunion>

¹¹ <http://www.iaea.org/newscenter/pressreleases/2011/prn201108.html>

