

## Challenges of Nuclear Power Safety

*Monday, 27 October 2014 17:30 (30 minutes)*

### CHALLENGES OF NUCLEAR POWER SAFETY

L.A.Bolshov

Nuclear Safety Institute of Russian Academy of Sciences, Russia

E-mail: bolshov@ibrae.ac.ru

**Abstract.** Major accidents at nuclear power plants are counted on fingers and they led to no population life losses (Three Mile Island, Chernobyl). The latest accident at Fukushima went with no victims of radiation, while the Great Eastern Earthquake and the following tsunami in 2011 took about 20,000 lives. The conclusion suggests itself: the nuclear accidents are not related directly to losses of lives, but are perceived by public much more seriously than a mega-tsunami event. The public perception of nuclear accident consequences, by orders exceeding actual damages, goes hand in hand to inadequate perception of the radiation risks by the overwhelming majority of society. The urgent matter of the world nuclear community is to formulate the main purpose of nuclear safety more precisely: ensuring that there is no severe damage to society in case of any accident, which may or may not involve loss of human lives or health. Two complementary tasks are to be solved to achieve the above goal. The first task is to reduce the probability of a severe accident to an acceptable level and ensure the advanced national and international emergency response systems. The second task, however, in our opinion, is far from being recognized well enough, namely: education of public achieving a civilized perception of radiation risk issues that shall be a responsibility of national governments and be conducted in concert with other nations. If a country decides to go towards the nuclear generation, and its government approves this step, the government should take a responsibility to protect and educate people in this matter. International Convention on Nuclear Safety should be extended by the education provision.

### Country or International Organisation

ROSTECHNADZOR, Nuclear Safety Institute of RAS - IBRAE RAN

**Primary author:** Prof. BOLSHOV, Leonid (Nuclear Safety Institute - IBRAE RAN)

**Presenter:** Prof. BOLSHOV, Leonid (Nuclear Safety Institute - IBRAE RAN)

**Session Classification:** Session 1: Poster Session

**Track Classification:** The role of TSOs in Relation to the Fukushima Daiichi Accident