BONN-2008 – IS NUCLEAR AGAIN ON THE AGENDA OF UNITED NATIONS?

By Vladimir Slivyak

Nuclear energy is again too often being mentioned as part of the solution. During the Bonn-2008-UN-negotiations nuclear technology again appeared in draft documents – France, US and sometimes Japan likes to mention it as a tool for fighting climate change. In the year 2000 the global environmental community managed to keep nuclear out of the Kyoto protocol. Without a UN rubberstamp of approval it is impossible for the nuclear industry to overcome the institutional hurdles they are facing. In the time of preparing post-Kyoto agreements, nuclear should not be allowed to play any role as well.

There are many arguments why nuclear energy should not be considered as part of the solution to climate change. One of them is that this is risky technology which already seriously affect public health in many countries. There is also very serious concern on possible proliferation of nuclear weapon materials. This is especially important in case of UN process going on right now because once nuclear allowed to be part of solution in fighting climate change – many developing countries will get easy access to nuclear materials which may be used to build nuclear explosion device and developed countries will be forced to pay for this. And probably the most important reason to be mentioned here is that nuclear power is not carbon-free.

Victims

Largest civil nuclear accident in humankind history happened 22 years ago in USSR. As a result of Chernobyl accident, over 9 million of people suffered one way or another. And economic loss of this accident exceeded $500 billion. Chernobyl legacy is alive – there are hundreds of thousands of people in Russia still suffers as a result of Chernobyl.

This is not the only large accident in history. Another explosion at nuclear facility happened in USSR in 1957. This facility called “Mayak”. The amount of radiation released at this accident was comparable to Chernobyl’s. There is 23,000 sq km contaminated with radiation as a result of this accident. In 1957, there were 270,000 of people living at this territory. Even 50 years after this catastrophic accident, people forced to live on contaminated territory, only small part of them are resettled to clean areas. Recently, European Court on Human Right accepted the case of victims of 1957 accident but unfortunately it will judge on the case only after several years.

Both examples of nuclear accidents shows that its legacy will exists for decades if not longer. And this is kind of country which considered as developed and takes part in G-8. It’s hard to predict what would happen if accidents occurs to developing country.

But this is not only about Russian nuclear technology. There are serious accidents happened to other countries in the past. And people in Europe are risking as well even in case of so-called normal operation of reactors.

Recent German studies on child cancer in regions near nuclear power plants identified serious increase in % of ill kids.

Serious health effects also exists in case uranium mining workers and people living close to mines.

Carbon-free?

Nuclear energy does contribute to climate change as it emits greenhouse gases comparable with the amounts of a modern gas fired power station if the whole life-cycle is taken into consideration. It takes enormous amounts of energy to extract uranium, to enrich and transport it, to build and dismantle nuclear power stations and to build and maintain waste facilities. As the easily accessible uranium resources are nearing their peak it will take even more energy in the future to extract it, thus increasing the related CO2-emssions. In fact, using nuclear power will be counterproductive at reducing carbon emissions.

Nuclear renaissance?

Even if we would only replace the nuclear power stations that will reach their expected life-time in the coming two decades we would need to build 80 nuclear powers stations (NPP) every ten years. The nuclear industry has had to face serious setbacks in the past few decades in their capacity to build as more and more countries were choosing not to go nuclear. It takes at least ten years to get a NPP online. Even with 60 years of experience and enormous financial support from the public sector the nuclear industry fails to deliver reliable, clean and safe energy.

Economy

It costs about 3.5 billion dollar to build one single nuclear power station. That is if no cost-overruns occur. So far, experience does not lead to any optimism about the cost of development of nuclear power. Two years after construction started on the 5th nuclear power station in Finland (Olkiluoto) costs have already risen 800 million Euro's more than anticipated. Russian nuclear technology is getting expensive as well. According to last statements by Russian nuclear industry officials, cost of modern Russian reactor is around $3 billion.

Waste

There are well over 200,000 tons of spent nuclear fuel (high-level radioactive waste) accumulated worldwide. Amount of other types of radioactive waste is so big that it's very hard to account. For over 60 years of well funded development, nuclear industry was not able to develop safe and reliable technology for isolating this dangerous waste from people and environment. And this can not be predicted if such technology will ever be developed. Once nuclear allowed to be part of the climate change solution, the amount of high-level radioactive waste will greatly grow up leading to increased costs of dealing with waste and growing risk of nuclear proliferation. Spent nuclear fuel can be used to extract plutonium which may be used to build nuclear explosion device.

Do we need kind of solution which is risky, expensive and not effective in fighting climate change? No, thanks.