Mikhail Lysenko<sup>1</sup>

## IS THE NUCLEAR RENAISSANCE OVER?

Until the Fukushima crisis the nuclear nonproliferation debate dominated the international agenda, while nuclear safety was relegated to the sidelines. The IAEA Ministerial Conference on Nuclear Safety held on 20–24 June 2011 in Vienna to discuss the lessons of Fukushima has demonstrated that security and safety should go hand in hand, and should be regarded as equally important priorities.

The conference has provided a clear answer to the question of whether the nuclear renaissance is over. After Fukushima many skeptics argued that the renaissance was dead in the water, and that nuclear energy no longer had a future. Germany had said it would wind down its nuclear programs. Italy had announced the well-known referendum. Some other countries had also said they would no longer pursue nuclear energy programs. Is it really all over for nuclear energy? The conference in Vienna has clearly demonstrated that it is not, and that nuclear energy must continue and will continue to develop because it simply has no alternative.

The statements about the winding down of nuclear energy programs were made by countries which had either planned such a move even before Fukushima, or which had not properly started such programs in the first place. All the other key players, including the United States, Russia, and even Japan, said they would continue to develop nuclear energy. That is the first and the most important conclusion made at the ministerial conference in Vienna.

The second conclusion is that there must be a review of the urgent and long-term measures that need to be taken so as to enable nuclear energy to move forward. The conference made a unanimous, well-balanced, and very robust statement highlighting the need to learn lessons from the Fukushima crisis. The ministers stressed that the countries pursuing nuclear programs must adhere to the highest nuclear safety standards. They emphasized the need for stronger national and international measures to ensure compliance with the most rigid nuclear safety requirements. They also said it is important to make sure the IAEA has the capability to meet the high level of public expectations. Many had expected a more timely and robust response from the agency to the Fukushima crisis. The role and the capability of the IAEA must be strengthened.

Most of the participating countries said rapid development of peaceful nuclear energy must continue—but they also expressed some reservations. Argentina and Brazil voiced their concern at the possibility of the key holders of nuclear technologies foisting some specific technologies or rigid standards on other countries which are developing nuclear energy. Other participants expressed an opposing view to the effect that the current IAEA guidelines must become compulsory. On the whole, however, common sense prevailed and the conference adopted a well-balanced final document.

As for the Russian position, Russia's President had voiced it back on April 26, 2011, when he proposed several specific initiatives which were later discussed in Vienna. Russia made three key proposals at the conference.


The first is to introduce amendments to the Convention on Early Notification of a Nuclear Accident. Many participants said at the conference that the information provided by Japan and



the IAEA was incomplete and less than timely. Local authorities were often not kept in the loop, and CNN seemed to provide clearer and timelier information than government agencies.

After analyzing the Convention on Early Notification of a Nuclear Accident, we had identified several gaps. Our proposal was, first, to introduce a compulsory provision requiring immediate notification of all interested parties and the IAEA of a nuclear accident, said notification to be issued within a very narrow time frame. There must also be a requirement immediately to provide a preliminary estimate of the seriousness of the incident using the international scale. Second, the population in the affected areas and the public in general must be given more information. In Russia, for example, there are radiation detectors placed around nuclear power plants. They transmit their data directly to the public website of Rosatom, the Russian nuclear energy operator. Everyone can access that data at any time of day or night to check the radiation levels. This ensures transparency and predictability, giving the public the information they need and reducing possible risks. We propose that other countries should also use the Internet to keep the public informed of the radiation levels around nuclear plants.

Russia's second proposal was to amend the Convention on Nuclear Safety. We believe that every country that plans to build its first nuclear facility should be required to undertake, even before work on the site of the future nuclear power plant has begun, all necessary measures for long-term planning and for the creation of nuclear infrastructure. We have also proposed that there should be clear standards and procedures for coordination and interaction between the respective government, the operating company, and the nuclear regulator. In addition, there needs to be a review of the existing design requirements to take into account the possibility of a combined external impact on a nuclear facility.

Finally, Russia's third proposal is to improve the IAEA safety norms and standards. We need to conduct a comprehensive analysis and make changes to the existing standards concerning recommendations for seismic resilience, combined external impact, etc. Russia has completed stress-testing of its own nuclear power plants. The tests have confirmed that some of the norms we adhere to are even more rigid than the IAEA norms. Our plants are built to withstand strong impacts, including high-magnitude earthquakes. They also have passive safety elements and meltdown traps. We have conducted the necessary inspections and stress tests; now we are analyzing their findings. To demonstrate good will, we have invited foreign specialists to take part in these events; we will continue to exchange the necessary information with our foreign colleagues. 

For more information on nonproliferation, please visit the section "Nonproliferation and Russia" on the PIR Center website: [npt.pircenter.org/eng](http://npt.pircenter.org/eng).

## NOTE

<sup>1</sup> The text of the article is based on the report of Director of International Cooperation Department of the *Rosatom* State Corporation for Atomic Energy, Mikhail Lysenko, at the international seminar "Nuclear Energy and the Development of Nonproliferation Culture: Covering New Regions," hosted by the PIR Center in Moscow on June 23, 2011.