

A Global Challenge

by Tomihiro Taniguchi

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no longer confined to the borders of one country.***

The IAEA, in its role as a leading organization for promoting international cooperation among its Member States, is in a unique position to observe global trends, issues and challenges in nuclear safety and security through a wide variety of activities related to the establishment of safety standards and security guidelines and their use. Particularly important opportunities are through the Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management, which oblige the Contracting Parties to submit their country reports for international peer review. On the whole, the IAEA believes that the international nuclear community has achieved a high level of safety performance. Nevertheless, vigilance is always required for safety and there is no room for complacency. As often noted by the IAEA Director General, "safety should always be considered a work in progress."

Today, there is much interest in new nuclear power programmes and the rapid expansion of existing programmes. Nearly 70 countries are considering or have expressed interest in developing nuclear power programmes. Many pundits refer to this renewed interest as a 'nuclear renaissance.' I, on the other hand, view this reality as a *Vita Nova*, or new life, because the nuclear community needs new ideas and innovative thinking to address new challenges, rather than a simple revival of the 'good old days.' This perception of a *Vita Nova* is particularly relevant for new entrant countries and in Asia where significant nuclear power development has continued for the last two decades.

Today's nuclear business, activities and challenges are increasingly multinational and global in nature, and no longer confined to the borders of one country. To the contrary, a nuclear activity in one country is likely to transcend national borders to involve governments, non-governmental organizations, industry and the public media from many countries. This fact will continue to present challenges for the international nuclear community to address, ranging from the limited supply of major reactor components and trans-border emergency response to managing cul-

tural diversities. As an example, you may have read about the Finnish European Pressurised Reactor (EPR) construction experience and the challenges posed by multicultural and multilingual subcontractors and construction crews. Such multinational complexities in supply, use and impact chains require improved communication, enhanced cooperation and appropriate oversight by vendors, operators and regulators to ensure that product quality and organisational competence are maintained.

The opportunities and challenges of today have strengthened the level of international cooperation towards the prevention of another serious accident or terrorist event and the coordination of international response, should it occur. In this regard, I would like to share with you the IAEA's key areas of focus for continuously improving nuclear safety and security, and the further promotion of effective international cooperation.

IAEA's Role in Nuclear Safety and Security

The IAEA facilitates and promotes international cooperation among its Member States to develop and effectively use high quality safety standards and security guidelines. At the request of its Member States, the IAEA also provides various peer reviews, advisory services and training events based on these standards and guidelines. In addition, the IAEA is the depository of important legally-binding international safety and security conventions and other non-binding international instruments.

Key Areas of Focus

The IAEA's first key area of focus is with the safety and security of existing nuclear facilities and activities. As you know, a serious safety or security event in one corner of the world can have lasting implications in another and diminish the confidence and support needed to introduce a new nuclear programme or expand an existing one.

Through experience, it is widely shared that self-assessment and international peer review activities are valuable tools to help ensure high levels of safety and security performance. In fact, these tools are becoming almost mandatory for European Union Member States, as noted in a newly proposed directive by the European Commission. The IAEA's Integrated Regulatory Review Service (or IRRS) and the Operational Safety Review Team (or OSART) are two of the best-known peer review services that the Agency provides for its Member States. US nuclear power plants have hosted six OSART missions since 1987. These missions have been highly valued by the associated nuclear facility and the participating experts. I am very pleased that the US has requested an IRRS peer review mission that will be carried out in 2010. I am confident that this will provide a precious mutual learning opportunity for the US and the other participating countries.

While nuclear power plants have made peer reviews and self-assessment valuable common practices, many other nuclear applications throughout the world have not. The international nuclear community can certainly improve in this regard.

The IAEA's second key area of focus is to support the safe and secure introduction of new nuclear power programmes. The collective knowledge from over five decades of worldwide experience is an invaluable resource for those considering nuclear power programmes for the first time. In this sense, the IAEA has been adapting and continuously improving its existing standards, guidelines and services to better meet the needs of those countries embarking on new nuclear power programmes.

Global Nuclear Safety and Security Regime

The IAEA's third key area of focus is the continuous improvement of the global regime that is in place today as the worldwide international framework for nuclear safety and security. Please allow me to briefly explain this concept. In general terms, the global nuclear safety and security regime reflects the consensus that emerged following the Chernobyl accident in 1986, which underscored the need for international cooperation to prevent another serious nuclear accident. The terrorist attacks of 9/11 further underscored the similar need but in the areas of security and protection against terrorism.

More specifically, the global nuclear safety and security regime is comprised of the institutional, legal and technical frameworks for ensuring the safety and security of nuclear facilities and activities worldwide in a more

internationally coordinated manner. At the foundation of this global regime are the strong national infrastructures of the countries that actively participate in the international efforts to improve nuclear safety and security. The major new elements of the global regime that have been in place since the mid-1990s are the international instruments, both legally binding and non-binding, such as Conventions and Codes of Conduct. These elements work together in synergy with international standards, guidelines, peer reviews and knowledge networks to support and further strengthen existing national and regional infrastructures, thus helping to prevent another serious nuclear accident or terrorist incident, or to better respond to it should it occur. During the recent IAEA Board of Governors meeting in March, I was particularly inspired by the statements from many Member States, especially those countries who are major suppliers of nuclear technologies like the US, France and Japan, who strongly encouraged new entrant countries to become active participants in the global regime.

A specific issue of interest for the international nuclear community and the IAEA in improving the global regime is in maximizing the synergy between safety and security. The IAEA Fundamental Safety Principles already recognize that safety measures and security measures must be designed and implemented in an integrated manner so that security measures do not compromise safety and vice versa. The US Nuclear Regulatory Commission's recent power reactor security rule making for safety and security interface is a good example of improvement in this area.

International Cooperation

I do believe that worldwide nuclear safety performance has been praiseworthy. At the same time, I also believe that the need for vigilance, continuous improvement and new thinking is highlighted by new entrant and rapidly expanding existing nuclear power programmes, by the levelling off of safety performance indicators and by the increasingly multinational and global nature of today's nuclear activities. The IAEA is committed to promoting international cooperation to help maintain a high level of nuclear safety and security and to continuously improve the global regime for this purpose. ☸

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