

## NEW YEAR'S STATEMENT 2009

January 6, 2009  
Japan Atomic Energy Commission

The Atomic Energy Commission (AEC) wishes everyone a happy new year. The Commission would like to take this opportunity to deliver its New Year's Statement for the year 2009.

Last year, various international meetings, including the G8 summit meeting held at Lake Toya in Hokkaido, Japan, made public statements expressing their recognition that the nuclear power generation is an effective measure for assuring energy security and combating against global warming. These events indicate that such recognition has become a consensus of international community in the year.

Last year global community started the discussion about the concept of international approaches to be taken after the first commitment period of the Kyoto Protocol, right in the midst of experiencing drastic deterioration of economic conditions stemming from the financial crisis in the United States in the wake of sharp rise in oil prices and higher grain prices associated with growing use of bio-fuels. In the meantime, the international situations surrounding energy sources remain uncertain as the strategy of energy-resource supplying countries facing sharp decline in oil prices is not known yet. However, as the policies to value clean energy, improvement in energy efficiency and environmental protection are catching on both in Japan and overseas countries, it is believed that utilization of nuclear energy will not regress when the world has struggled out of this economic quagmire.

Under these circumstances, Japan should strive to achieve steady progress in the research, development and utilization of nuclear energy for enjoying the merit of nuclear power generation and utilization of radiation, while making steady progress in international corporation and development in this field, which will contribute to better welfare of humankind. To this end, the AEC believes that the parties concerned should cope with various issues this year as follows:

### Important issues to be coped with in this year

#### **Nuclear Power Generation:**

The capacity factor of existing nuclear power plants in Japan during FY2007 fell to a low level of 60.7%, partly because of the shutdown of Kashiwazaki-Kariwa Nuclear Power Plant due to the Niigataken Chuetsu-Oki Earthquake which occurred in July 2007. The electric utilities should conduct activities to reconfirm the validity of seismic safety assessment of their plants steadily and gain the understanding of the local community of such activities. At the same time, they should work steadily to review the way their business risk management activities are being promoted, assessing the latest findings without delay and reflecting its results in their business operation, improve plants' capacity factor, and materialize the uranium-plutonium mixed oxide fuel utilization in their plants and the power uprating, as well as promote construction and decommissioning of nuclear power plants.

#### **Nuclear Fuel Cycle Activities:**

Although there have been some delays at the Rokkasho Reprocessing Plant which is currently in the final stage of active-test operation in establishing the operating conditions for the facility to vitrify high-level liquid wastes, the concerned parties should make steady efforts to verify the characteristics of the facility and move forward with this work in a phased manner, while expending all possible means to ensure safety. Furthermore, the efforts toward the construction of both a facility for intermediate storage of spent fuel and a MOX fuel fabrication plant should be carried out in a

timely manner in line with progress in their seismic safety review.

For the “Monju” (a prototype fast breeder reactor), the plant verification test to restart the operation is in the final stage, wherein required repair work and areas to be improved are checked, while its operation team is attaining greater technical proficiency. Moreover, its seismic safety report prepared in conformance with the new "Regulatory Guide for Reviewing Seismic Design of Nuclear Power Reactor Facilities" is currently under review by the regulatory body. The Government and related organizations should implement these activities without fail and continue to put all their efforts in getting these tasks done.

Furthermore, in coping with nuclear fuel cycle activities of this kind, it is necessary to recognize the importance of nuclear safeguards activities in the every activity areas, and take every possible measure for assuring nuclear security.

#### **Treatment and Disposal of Radioactive Waste:**

For the high-level radioactive wastes, mutual understanding activities with local people, which are to be performed by Nuclear Waste Management Organization of Japan (NUMO) and other organizations, should be further enhanced through their diverse activities to provide the public with opportunities to learn about the disposal activities and have dialogue on the activities with them, in order to create better environment for local municipalities to apply for the process to select the locations of disposal facilities. In addition, the Japan Atomic Energy Agency (JAEA) should work steadily to select areas where disposal facilities for wastes generated from laboratories, etc. will be located.

#### **Utilization of Radiation:**

Considering the facts that the RI-Beam Factory has started achieving some outcomes and part of the Japan Proton Accelerator Research Complex (J-PARC) has already come into service, utilization of radioactive isotopes and radiation (quantum beam) are keeping on expanding steadily not only in academic fields but also in industries and agriculture fields. In the medical field, they have also provided highly effective means to the medical diagnosis and treatment, such as CT (Computed Tomography), PET (Positron Emission Tomography) and heavy particle radiotherapy. The government and private sector organizations should continue pursuing wider use of radiation in various areas on the major premise of safety assurance. In light of higher expectation for utilization of radiation in developing countries, they should also contribute to such wider use through the Forum for Nuclear Cooperation in Asia (FNCA), etc. On the other hand, we expect, as there is the growing use of food irradiation technology on a global scale, that the concerned parties will mount further efforts to enhance social acceptability of this technology, so that the examination of the technology by the food safety administration will make progress.

#### **Research and Development of Nuclear Energy:**

Playing their respective roles, the government and private sector should consistently promote various research activities, such as R&D for solving immediate issues including advanced utilization of existing LWRs, treatment and disposal of wastes, etc., R&D concerning medium to long-term issues such as development of the next-generation LWR technology and fast breeder reactor and its fuel cycle technology, R&D related to both long-term issues such as nuclear fusion, and basic and fundamental R&D which is essential for maintaining and innovating nuclear energy utilization. Through the Advisory Committee on Research and Development, the AEC will continue to make assessments of the appropriateness of road map of these efforts, the validity of R&D infrastructure made of human resources and facilities which support such efforts, and the suitability of mechanism to promote scientific and technological activities in which creation and adoption of innovations as well as review of research and development objectives are repeated in a spiral way.

#### **International Approaches:**

Considering the fact that a rising number of countries wishes to introduce nuclear power generation

in the future, the government should cooperate with the private sector to improve the environment for international development of the nuclear energy industry, actively engage in multinational activities through the International Atomic Energy Agency (IAEA), the Global Nuclear Energy Partnership (GNEP) and the FNCA, to support the efforts, including efforts concerning nuclear safety, nuclear security and non-proliferation of nuclear weapons, which will be made by relevant countries to consolidate the required technical infrastructure for introduction of nuclear power generation, while striving to pursue bilateral efforts as required.

Moreover, as it is recognized, based on a future outlook, as necessity to establish more effective international system for non-proliferation of nuclear weapons, Japan should contribute to the establishment of this system by actively involving in the examination and/or materialization of fuel supply assurance initiative, etc. which have been proposed from this perspective.

In the meantime, while nuclear energy transactions have begun to be active between India and major countries, Japan and India should start serious discussions as to what kind of cooperation between them should be fostered properly in the field of nuclear power, from the viewpoint of improvement in welfare for humankind and promotion of mutual benefits between them.

Incidentally, Japan should work together with each country to aim at nuclear disarmament and abolishment of nuclear weapons for the purpose of realizing a safe world free of nuclear weapons.

#### **Developing and Securing Human Resources:**

In order to succeed to technology and secure excellent human resources in the nuclear power industry, the government, nuclear power industry, universities, etc. should consistently perform their own activities while sharing a road map for human resource development in the nuclear power industry, which shows division of their roles, with each other. In particular, the nuclear power industry should create a workplace where workers can engage in interesting work, which is worth doing, to attract excellent human resources.

Furthermore, in recognition of the fact that the school curriculum guidelines was amended to suggest that nature and use of radiation should be taught to the students in the science class in junior high schools, the personnel concerned in nuclear energy should cooperate with the people involved in the preparation for the advanced implementation of the guidelines to be initiated in FY2011.

#### Conclusion

We will never be able to attain sustainable development of our society that is based on advanced technology without taking on the challenge to create and adopt innovations, overcoming the difficulties that we encounter and appropriately applying the knowledge that we obtained by doing so to the design of new technology and the management of technological systems. The government and private sectors in Japan should make such efforts with a view toward contributing to improvement of the welfare of human society as well as the elevation of the national living standard, while fully understanding their own responsibilities for managing risks involved in the nuclear power utilization as low as practicable, ensuring the transparency and openness of the relevant activities in contemplation of that the nuclear power cannot be utilized without public confidence and valuing dialogs and mutual understanding with the public.

The AEC will continue endeavoring to evaluate the validity of nuclear energy policy specified in the Framework for Nuclear Energy Policy, while analyzing and assessing efforts made by each organization at its Advisory Committee on the Evaluation of Framework for Nuclear Energy Policy, etc. And, on that basis, the AEC will examine whether or not the Framework for Nuclear Energy Policy should be revised, considering progress of the key measures and policies as well as changes in international situations.