

## Japan

**Kiyoshi Yamauchi**, ANS Japan Local Section and IC member, sent the following report

from Japan, which I have edited:

ANS and Atomic Energy Society of Japan (AESJ) established a bilateral agreement in 1999 to provide mutual co-operation, and since then AESJ is one of the so-called “sister-societies” of ANS.

We are delighted to announce that the AESJ will mark its 60th anniversary on February 14th next year.

### 1. Energy Policy and Activities of Ministry of Economy, Trade and Industry (METI)

The previous “Energy Basic Plan”, approved by the Cabinet on April 11, 2014, emphasized that nuclear energy would be one of the important base load power and the desirable “power best mix” in 2,030 as electric power base. METI decided, in July 2015, that nuclear should be reduced down to 20-22% from 30% before “the Great earthquake disaster” in 2011.

The revised “Energy Basic Plan”, reflecting the suggestion of the “Round Table for Studying Energy Situations” established by the Ministry of Economy, Trade and Industry (METI) , was approved by the Cabinet on July 3, 2018.

This revised “Energy Basic Plan” shows the similar direction to the previous one and emphasizes the followings;

- Renewable energy is to be the major electric power source for decarbonization
- Although dependency on the nuclear is to be reduced, development of safer reactors is to be pursued as an option for decarbonization
- Energy saving is to be thoroughly pursued

### 2. Status of LWRs Restart & Plant Life Extension

(1) Applications of restart for NRA review on conformity with new safety regulation, enforced in July 2013, were started. Applications as of September 2018 are still 26 reactors at 16 sites (16 PWR, 4ABWR, 6 BWR).

(2) Application for restart of Tokai 2 (BWR) was just approved on September 26, 2018. The total number of approved plants is 15 (12 PWRs, 2 ABWRs and 1 BWR).

(3) PWRs, namely Ohi 4 and Genkai 4 were just restarted in April 2018 and in August 2018 respectively. Consequently, 9 plants among 14 have already been restarted.

Applicant	NPP	Type	Commercial Operation	Application
Hokkaido	Tomari 1	PWR	1989	July, 2013
	Tomari 2	PWR	1991	
	Tomari 3	PWR	2009	
Kansai	Ohi 3	PWR	1991	Restarted (March, 2018)
	Ohi 4	PWR	1993	Restarted (April 2018)
	Mihama 3	PWR	1976	Approval Obtained (November, 2016) (Life Extension Approved, November 2016)
	Takahama1	PWR	1974	Approval Obtained (June, 2016) (Life Extension Approved, June 2016)
	Takahama2	PWR	1975	
	Takahama 3	PWR	1985	Restarted (July, 2017)
	Takahama 4	PWR	1985	Restarted (June 2017)
Shikoku	Ikata 3	PWR	1994	Restarted (September, 2016)
Kyushu	Sendai 1	PWR	1984	Restarted (September, 2015)
	Sendai 2	PWR	1985	Restarted (November, 2015)
	Genkai 3	PWR	1994	Restarted (March, 2018)
	Genkai 4	PWR	1997	Restarted (August, 2018)
Tokyo	Kashiwazaki-Kariwa 6	ABWR	1996	Approval Obtained (December, 2017)
	Kashiwazaki-Kariwa 7	ABWR	1997	
Chugoku	Shimane 2	BWR	1989	December, 2013
Tohoku	Onagawa 2	BWR	1995	December, 2013
	Higashidori 1	BWR	2005	June, 2014
Chubu	Hamaoka 3	BWR	1987	June, 2015
	Hamaoka 4	BWR	1993	February, 2014
Hokuriku	Shika 2	ABWR	2006	August, 2014
JAPC	Tokai 2	BWR	1978	Approval Obtained (September, 2018)
	Tsuruga 2	PWR	1987	November, 2015
EPDC	Ohma (Full Mox)	ABWR	Not yet	December, 2014

### 3. Activities of Atomic Energy Society of Japan (AESJ) (<http://www.aesj.or.jp/en/>)

Every July, we change the organization. This year, we have changed our president and some directors.

(1) Message from New President、 Yasuo Komano

Giving the top priority to public safety, the purpose of AESJ's activities is to provide environmental conservation and social development by advancing science and technology on the peaceful uses of nuclear energy and radiation.

For the main activities of the current term, we will place special emphasis on the following topics:

1. Support Fukushima reconstruction and the accident-damaged reactors decommissioning, and provide the accumulated knowledge to the world

- We provide technical/professional support for a safe and smooth progress of the accident-damaged reactors in Fukushima prefecture through the activities of “Fukushima Special Project” and “Study Committee on Decommissioning of the Fukushima Daiichi Nuclear Power Plant”.
- We are working with other academic societies to understand more about prevention/reduction so that we can provide better countermeasures.
- We are planning to release English-translated Japanese papers and articles on the accident, and issue a special edition on the decommissioning of accident-damaged reactors.

2. Facilitate the activities for finding the uses of nuclear energy and radiation are worthwhile and promising, and nurture the young generations.

By providing these activities, we promote enhancement of nuclear power safety and advancements in science and technology for the future.

- Contributions to the restart of nuclear power plants and continuous enhancement of safety, and safe and secure decommissioning.
- Studies and recommendations on building new light-water reactors
- Contributions to the progress in FBR developments and fusion power technologies, and establishment of overall fuel cycles including final disposal of radioactive wastes
- Coexistence with recyclable energies, and recommendations from the viewpoint of global environmental issues

In addition, the following studies and recommendations will be made from the viewpoint of the uses of radiation and the development of technical experts.

- Promotion of the studies in radiation use by early restart of research reactors such as JRR-3, following the research reactors in universities and NSRR.
- Consideration and Suggestion for current situation survey, finding problems, and

solutions of nuclear fuel/RI facilities in colleges /universities throughout Japan.

- Studies on “the way it should be” of the rational regulation criteria, including graded approach.
- Furthermore, we work on the acquisition of overseas state-of-the-art knowledge and the fostering of human resources who can succeed in the global field.
- Support for cooperation and exchange with overseas academic societies and international activities.

3. Promote the public understanding, improve the services for the members, and expand the membership. People who agree with nuclear power plants account for 20 to 30% since the accident occurred, which shows that the public understanding of nuclear power plants remains extremely low. To improve the situation, we will strengthen the activities for young generations and enhance the services for the members, as well as strengthening the activities to obtain the understanding of the peaceful uses of nuclear energy and radiation. For the 60th anniversary projects, we are planning to hold the Symposium in next spring, issue a special edition of the journal, carry out a special publishing activities, etc.

## (2) Annual Conference

2018 Autumn Meeting was held at Okayama University, on September 5-7, 2018, where many special plenaries and sessions, such as decommissioning, nuclear power plant safety, and so on were organized and implemented successfully under cooperation with the Local Section of AESJ and a local organizing committee. More than 1,400 people attended, including many students.

The photo below left shows award winners and board member of AESJ. The photo below right, taken at the social gathering, shows the Giant Snake God (OROCHI in Japanese) for traditional dance in Okayama.



## 5. Activities of ANS Japan Section FY2018 (<http://aesj.or.jp/kaigai/en/index.html>)

The ANS Japan Section is managed by the International Nuclear Information Network (ININ) of the Atomic Energy Society of Japan (AESJ). The members number about 180, and among them the number of ANS national members is about 20. There are ten officers on the Executive Committee.

Major activities in FY2018 are as follows:

- Semi-annual Members General Meetings are held twice a year, in autumn and spring. The autumn meeting was held in September in Okayama, the spring meeting will be held in March in Ibaraki.
- Executive Committee Meetings are held five times a year. Three meetings were held in April, June and September.
- Workshops by the invited speakers are held four times a year. Two workshops were successfully held in this FY as follows:
  - 1) “Major IAEA activity in the field of Nuclear Power” by Mr. Kastumi Yamada, ex-Officer of Division of Nuclear Power, Department of Nuclear Energy, IAEA, on June 18, 2018
  - 2) “Nuclear Policy in Poland” by Dr. Kazuhiko Kunitomi, Deputy Director General, Sector of Fast Reactor and Advanced Reactor Research and Development, JAEA, on September 6, 2018,

Planning of remaining two workshops is ongoing. Also, we have other means of communicating with section members: e- mail, Web and annual Newsletter.

