

Japan

Tomofumi Yamamoto, of the ANS Japan Local Section and the AESJ International Activities Committee, contributed the following report, which I have edited.

1. Energy Policy and Activities of the Government

The Government of Japan formulates the Strategic Energy Plan in order to show to the public the basic direction of Japan's energy policy under the Basic Act on Energy Policy. On July 3, 2018, the Cabinet approved the new Strategic Energy Plan as the basis for the orientation of Japan's new energy policy towards 2030 and further towards 2050, considering the changes in energy environments inside and outside Japan.

This Strategic Energy Plan shows a direction similar to the previous one and emphasizes the following:

- Renewable energy is to be the major electric power source for decarbonization
- The share of nuclear energy remains at 20-22% of total electricity in 2030
- The pursuit of reactors with superior safety, economics and mobility, and the development of technology aimed at the resolution of backend problems.

According to the Strategic Energy Plan, Ministry of Economy, Trade and Industry (METI) launched new project for nuclear innovation in April 2019.

2. Status of Nuclear Power Plants

As of April 2009, only 9 PWRs back to online and 6 plants passed safety review of Nuclear Regulation Authority. Utilities have decided to close 24 NPPs.

Applicant	NPP	Type	Commercial Operation	Status (NRA Review)
Hokkaido	Tomari 1	PWR	1989	Application, Jul. 2013
	Tomari 2	PWR	1991	Application, Jul. 2013
	Tomari 3	PWR	2009	Application, Jul. 2013
Kansai	Ohi 3	PWR	1991	Restart, Mar. 2018
	Ohi 4	PWR	1993	Restart, Apr. 2018)
	Mihama 3	PWR	1976	Approved. Nov. 2016 (Life Extension Approved, Nov. 2016)
	Takahama1	PWR	1974	Approved. Jun. 2016
	Takahama2	PWR	1975	(Life Extension Approved, Jun. 2016)

	Takahama 3	PWR	1985	Restart, Jul. 2017
	Takahama 4	PWR	1985	Restart, Jun. 2017
Shikoku	Ikata 3	PWR	1994	Restart. Sep. 2016
Kyushu	Sendai 1	PWR	1984	Restart. Sep. 2015
	Sendai 2	PWR	1985	Restart. Nov. 2015
	Genkai 3	PWR	1994	Restart. Mar. 2018
	Genkai 4	PWR	1997	Restart. Aug. 2018
Tokyo	Kashiwazaki-Kariwa 6	ABWR	1996	Approved. Dec. 2017
	Kashiwazaki-Kariwa 7	ABWR	1997	
Chugoku	Shimane 2	BWR	1989	Application. Dec. 2013
Tohoku	Onagawa 2	BWR	1995	Application. Dec. 2013
	Higashidori 1	BWR	2005	Application, Jun. 2014
Chubu	Hamaoka 3	BWR	1987	Application. Jun. 2015
	Hamaoka 4	BWR	1993	Application. Feb. 2014
Hokuriku	Shika 2	ABWR	2006	Application. Aug. 2014
JAPC	Tokai 2	BWR	1978	Approved. Sep. 2018 (Life Extension Approved, Nov. 2018)
	Tsuruga 2	PWR	1987	Application. Nov. 2015
EPDC	Ohma (Full Mox)	ABWR	Not yet	Application, Dec. 2014

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

(1) Preparation for 60th Anniversary Symposium

AESJ was established in 1959 and celebrate its 60th anniversary in 2019. AESJ held the 60th anniversary symposium on April 25th 2019 in Tokyo. For the symposium, six cooperate societies including ANS gave congratulatory messages. AESJ deeply appreciates ANS's cooperation.

(2) Annual Conference

The 2019 Spring Annual Meeting was held at Ibaraki University Mito Campus on March 20 - 22. 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 1,300 people attended including students.

During the meeting, presentation ceremonies for AESJ Awards, Excellent Student Awards, and recognition of long-term members were conducted as well.



This photo shows the plenary session “Current Situation and Issues on Nuclear Emergency Preparedness”, organized by the AESJ Board.

The role of national and local government, planning and execution of evacuation, etc. were discussed with specialists and local community residents.

(3) Fukushima Daiichi Accident Related Activity

Fukushima Decommissioning Committee of AESJ has a scientific advice activity for the decommissioning of the Fukushima Daiichi plants and a follow-up activity suggested in the AESJ Fukushima Daiichi Nuclear Accident Report. The committee held a symposium on Fukushima Daiichi Decommissioning in Tokyo on 2019 March 9, on current subjects or problems being faced, and on how AESJ could cope with them.

The topics presented at the symposium are as below:

- Whole process of decommissioning and its hold point
- Management goal and security of damaged reactors
- Waste management for decommissioning and restoration of sites
- Safety evaluation for damaged reactors against natural phenomena
- Challenge for new technologies
- Proposal for international cooperation

4. Activities of ANS Japan Section FY2018 (April 2018 – March 2019)

ANS Japan Section is managed by the International Nuclear Information Network (ININ) of AESJ. Major activities in FY2018 are as follows:

- 1) Semi-annual Members General Meetings are held twice a year, in autumn and spring. The autumn meeting was held in September 2018 in Okayama, the spring meeting was held in March 2019 in Ibaraki.
- 2) Executive Committee Meetings are held about five times a year. Five meetings were held in FY2018: April, June, August, December, and February.
- 3) Workshops by the invited speakers are held four times a year. Four workshops were successfully held in this FY as follows:
 - “Activities of IAEA on Nuclear Power”, by Mr. Kastumi Yamada, former staff of Division of Nuclear Power, Department of Nuclear Energy, IAEA, on June 27, 2018.
 - “Nuclear Energy in Poland”, by Dr. Kazuhiko Kunitomi, Deputy Director General, Sector of Fast Reactor and Advanced Reactor Research and Development, JAEA, on September 6, 2018.
 - “Progress in UAE Nuclear Program”, by Dr. Takehiko Saito, former Sr. Design Review Specialist, Nuclear Safety Department, Federal Authority for Nuclear Regulation, UAE, on December 4, 2018.
 - “Nuclear Energy & Small Modular Reactor”, by Mr. Jean-Philippe Davignon (First Secretary, Energy and Environment, Embassy of Canada to Japan), and “Slurry Fracture Injection(SFI), Zero Discharge Deep Well Disposal” by Mr. Roman Bilak (President, Terralog Technologies Inc.) on March 21, 2019.

Also, the ANS Japan Section has other ways to communicate with section members: through e-mail, the Web and the annual Newsletter.