

Gender Equal Participation for Nuclear Field in Japan and Initiatives of Tokyo City University

Additional Information : Kashiwazaki-Kariwa NPS NOW

May 13, 2010

Plenary Session IV

Human Resource for Nuclear Renaissance

18th WiN Global Annual Meeting -Busan, Korea



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Win-Japan

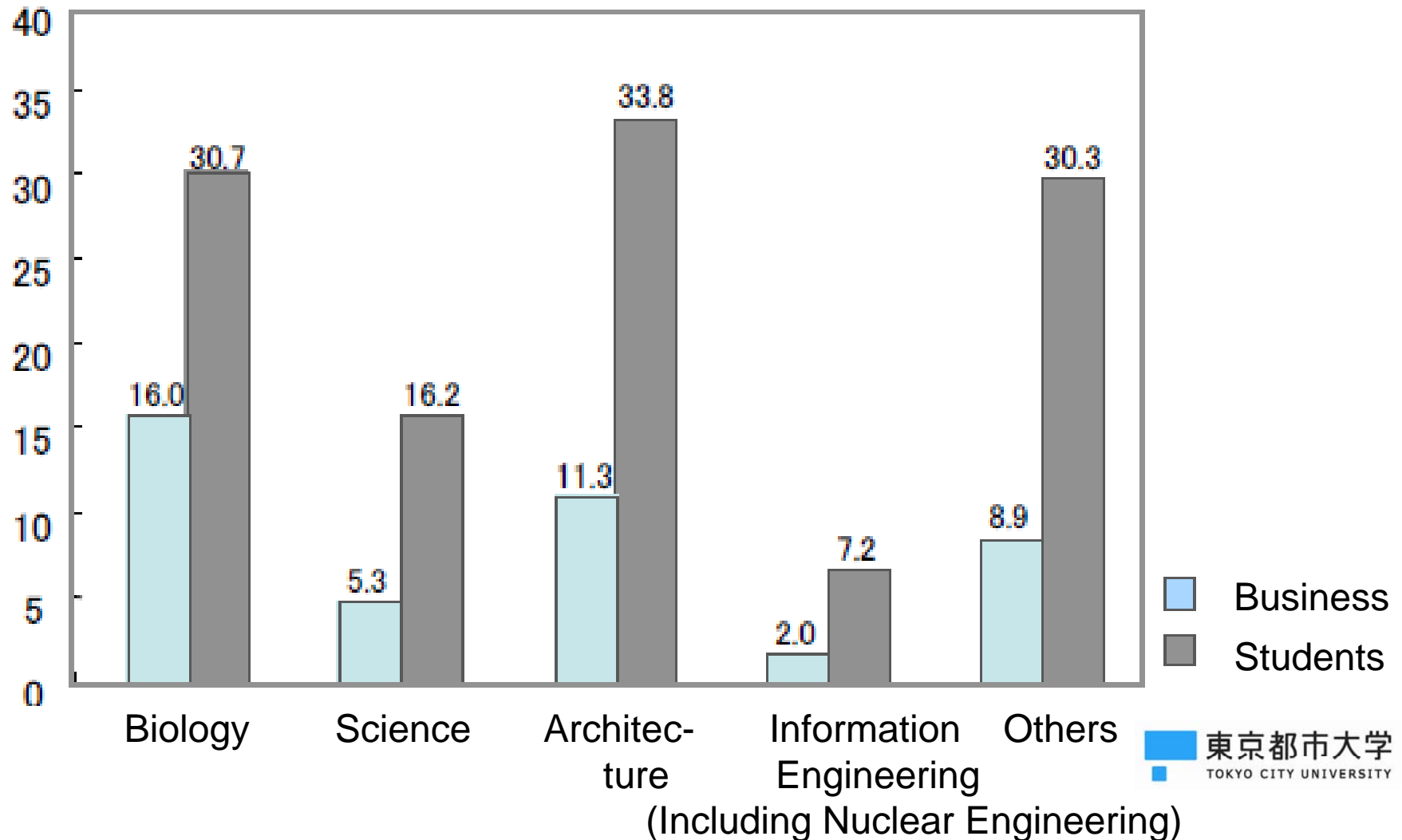
Tokyo City University

Gender Equal Participation in Japan

HDI : Human Development Index GEM : Gender Empowerment Index GGI : Gender Gap Index

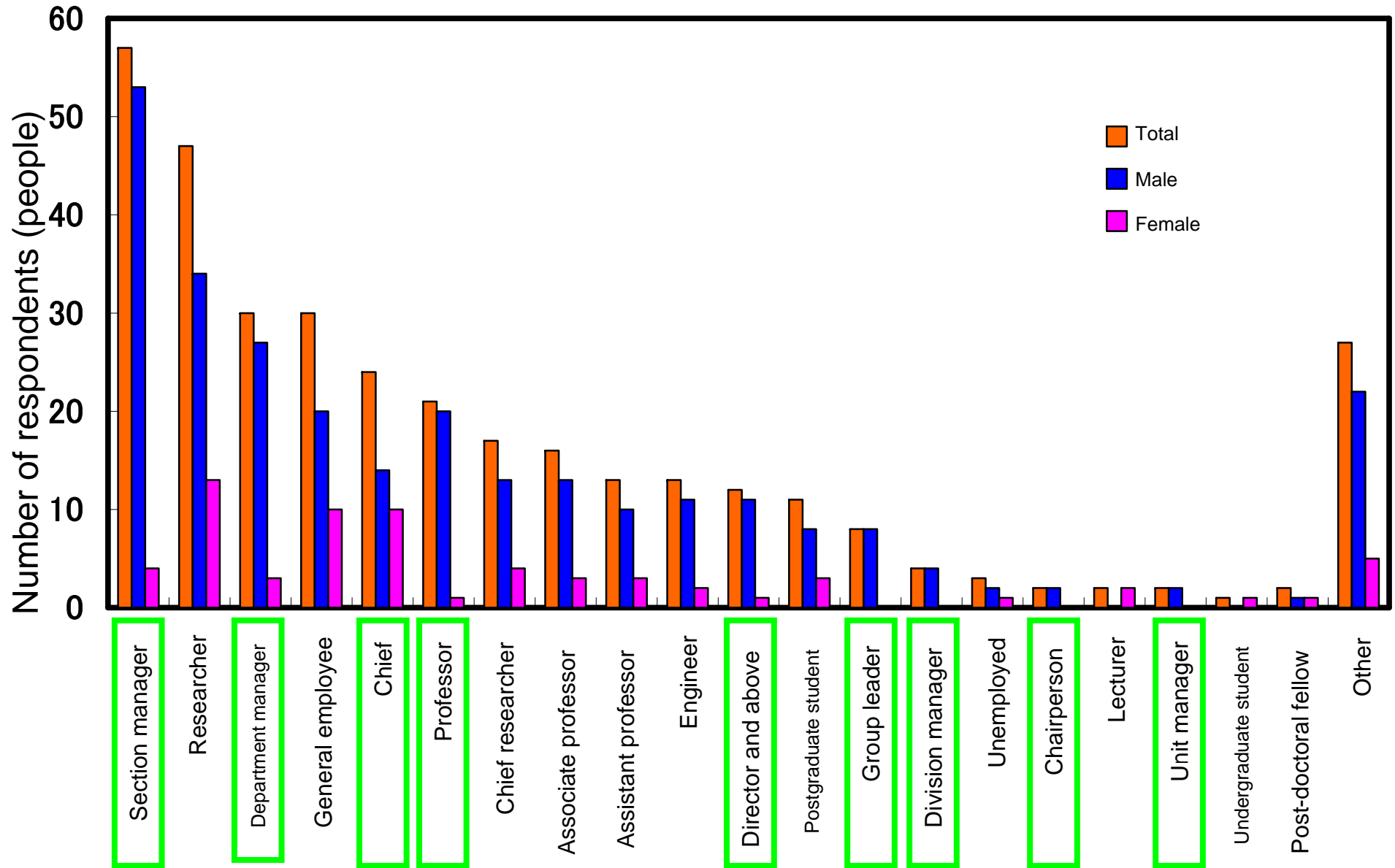
Country	HDI Rank	GEM Rank	GGI Rank	Country	HDI Rank	GEM Rank	GGI Rank
Norway	1	2	1	Spain	15	11	17
Australia	2	7	21	Denmark	16	4	7
Iceland	3	8	1	Belgium	17	6	28
Canada	4	12	31	Italy	18	21	
Ireland	5	22	4	Liechtenstein	19	-	-
Netherlands	6	5	9	New Zealand	20	10	5
Sweden	7	1	3	United Kingdom	21	15	13
France	8	17	15	Germany	22	9	11
Switzerland	9	13	14	Singapore	23	16	-
Japan	10	57	98	Hong Kong	24	-	-
Luxembourg	11	-	-	Greece	25	28	-
Finland	12	3	2	South Korea	26	61	-
United States	13	18	27	Israel	27	23	56
Austria	14	20	29	Andorra	28	-	

Female Ratio of Each Science & Technology Academic Society (%)



Item (2) Work titles of AESJ respondents

Managerial positions



Program of Japanese Government

- MEXT Support for the Model Attempt of Female Researchers' Enlargement and Empowerment
- The Ministry of Education, Culture, Sports, Science and Technology(MEXT) started to support universities and institutions in 2006 because current situation could not be overlooked since Japan, as a nation aiming the world leader in science and technology. The content of MEXT support is to offer financial backup to the excellent scheme that becomes an model for female researcher 's continuation of their career with improvement of working surroundings, birth and the child care, etc.
- In 2009, TCU applied for the female researcher support model as the only, private, science and technological centric university with the nuclear safety engineering department. The theme was a gender equal participation model with engineering system innovation. TCU aimed at the female researcher's increase and promotion in engineering field where women researcher and teaching staffs were very few. As a result, TCU was adopted as a support target.

Gender distribution and tasks for gender-equal participation at Tokyo City University

Faculties	Teaching staff	Students
Engineering	2.88% (3/104)	8.62% (314/3641)
Knowledge Engineering	13.16% (10/76)	8.27% (78/943)
Total (Entire Faculties Including social and human science)	15.27% (40/262)	13.10% (970/7402)

As of May 1, 2009: Teaching staff includes university teachers and their assistants, while students represent undergraduate students only.

● **Extremely unbalanced gender distribution**

Seven (out of 14) engineering departments have no female teaching staff.

Number:

● **Low awareness on gender-equal participation**

Overwhelming sentiment that male predominance is acceptable in engineering research and work

Belief that promoting female participation could be reverse discrimination

Vision and Action of the Gender-Equal Participation Model for Engineering Innovation

Establishment of Support Office for Female Researchers(SOFERS)

➤ **Plus-One Plan**

Of 14 engineering faculty departments, 7 have no female researchers.

Approach to departments with no female researchers —

Recruitment of female lecturers

➤ **“Science is Your Friend” Project**

Tokyo City University Group as an educational entity covering kindergarten to tertiary education, offer hands-on experiment classes and school trips to university research offices as part of unique educational activities, so as to maintain students' interest in science across all year groups.

➤ **Network of female researchers**

There are 40 female researchers /teaching staffs in 16 departments of 5 faculties in TCU. SOFERS are developing an network for female researcher across all departments.

Vision and Action of the Gender-Equal Participation Model for Engineering Innovation

➤ **Female Researchers Presentation Meeting**

This meeting is held for female researchers in TCU to make lectures about their own topics and to do mutual understanding and the information exchange. The audience are not only university professors but students.

➤ **Gender Equality Participation Study Meeting**

This meeting is set up to study gender equal participation issue systematically and academically for TCU staffs and professors so that they can discuss about gender equality issue and improve surroundings for female researchers' continuation of career.

➤ **Publishing of Role Model Book**

Identify Tokyo City University's successful female graduates as role models, and publish their profile in a book.

Compile reference booklets on the University's female researchers and female students.

➤ **Foundation of Female Alumnus Network**

Conclusion

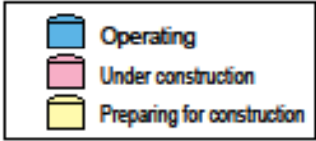
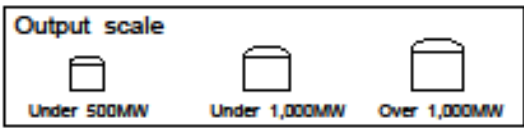
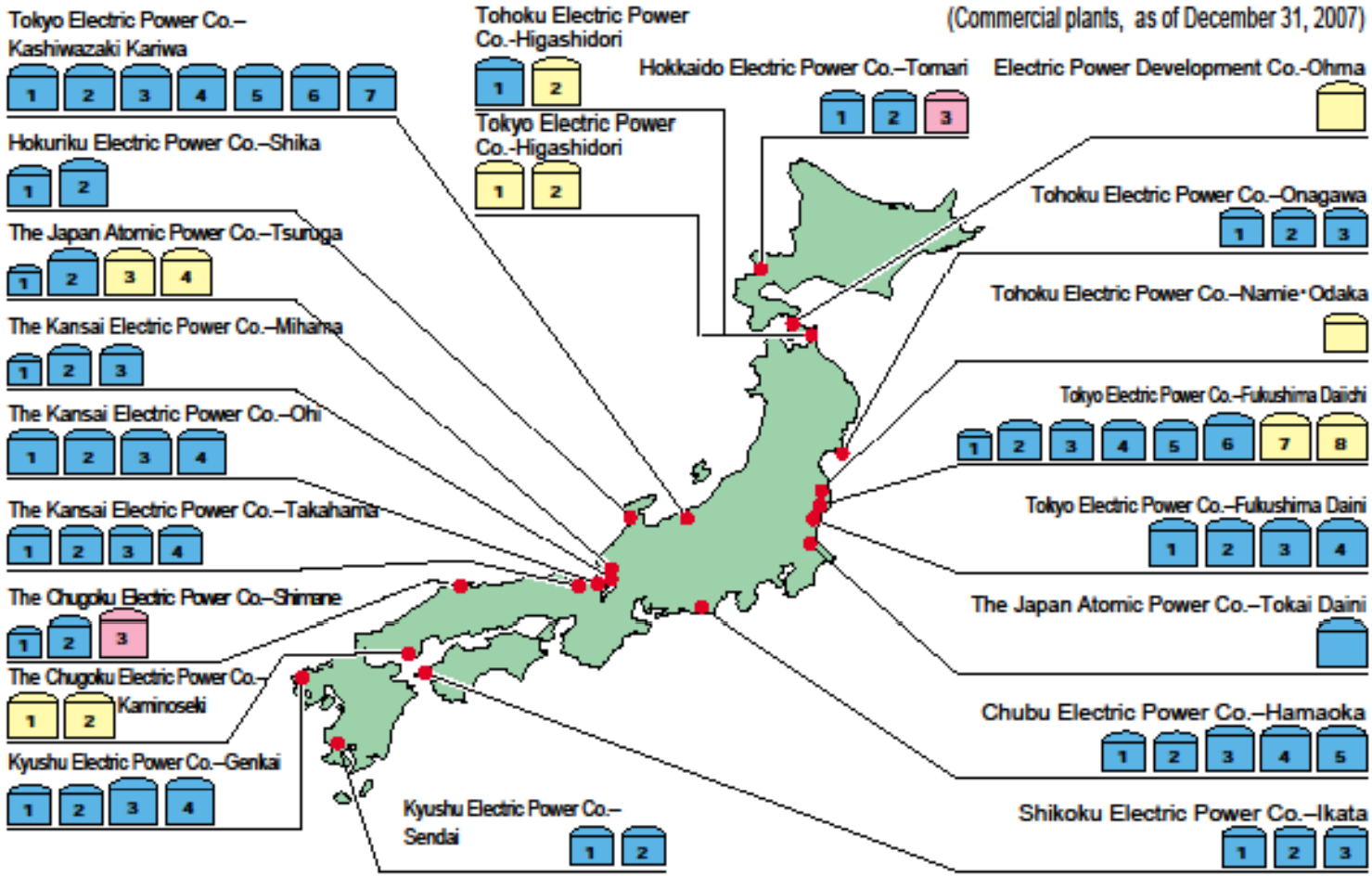
- **In Japan, exploitation of the female ability in the society and gender equal participation in the business are behind other countries in the world.**
- **Not only the number of women and the level of executive posts are remarkably low especially in the nuclear field in Japan.**
- **Japanese Government is supporting engineering and technology oriented universities and institutions by the sponsorship and the guidance in order to empower female researchers and engineers under the positive gender equal participation policy for science and the technology.**
- **Tokyo City University(TCU) applied for the government program to acquire financial support last year and successfully acquired the support.**
- **The support office of female researchers in TCU is now holding various measures such as the Plas One project, the Science is your Friends project and Role Model Excavation project and so forth, and is making efforts to infiltrate the measures into our university.**

Additional Topics
Kashiwazaki-Kariwa NPS Now



Nuclear Power Plants in Japan

(Commercial plants, as of December 31, 2007)



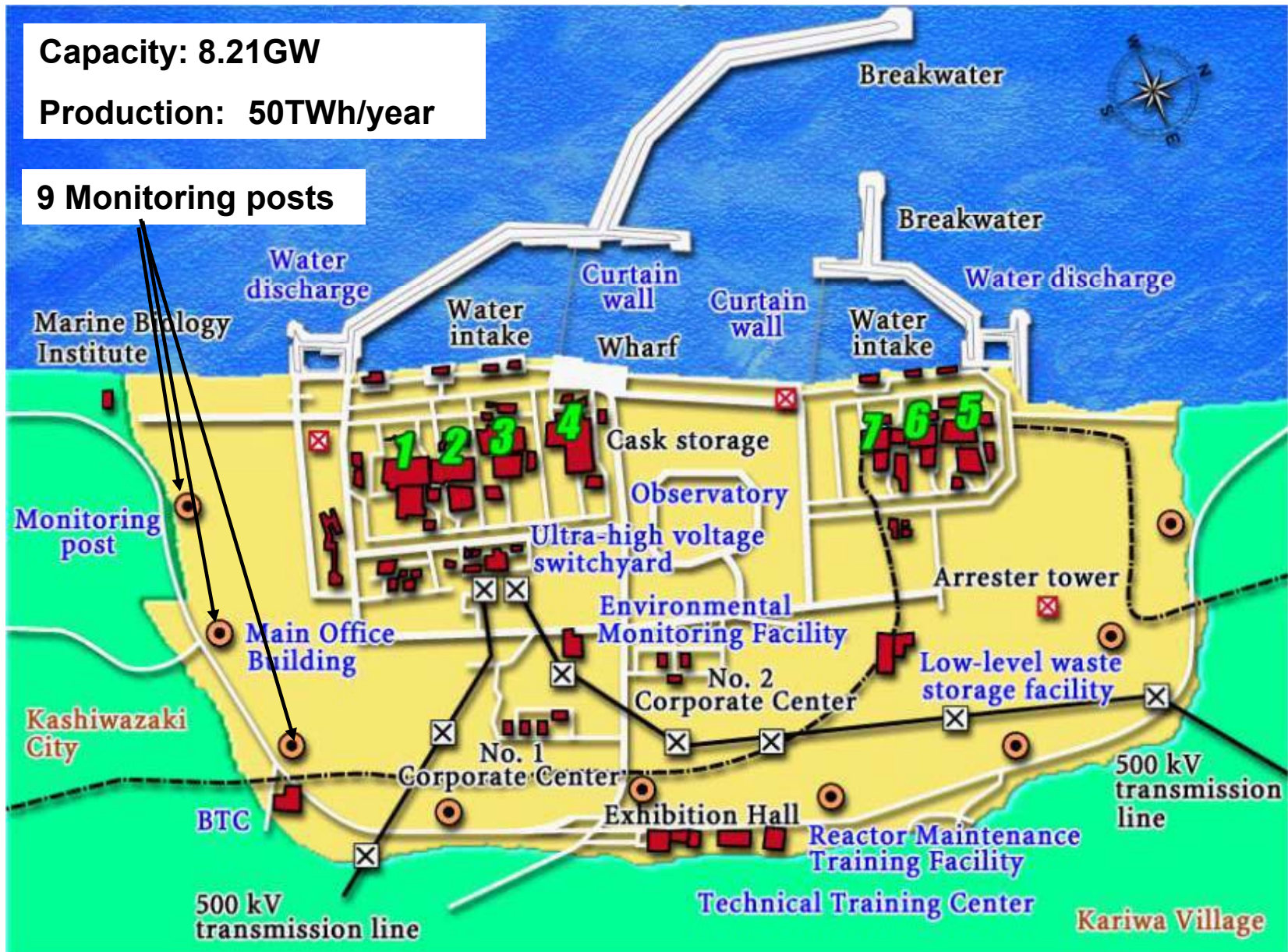
	Number of Units	Total Output (MW)
In operation	55	49,467
Under construction	2	2,285
Preparing for construction	11	14,945
Total	68	66,697

Site Layout

Capacity: 8.21GW

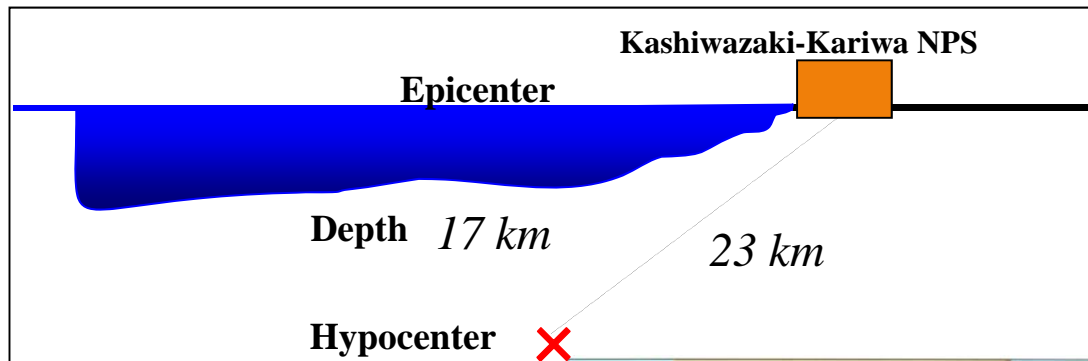
Production: 50TWh/year

9 Monitoring posts



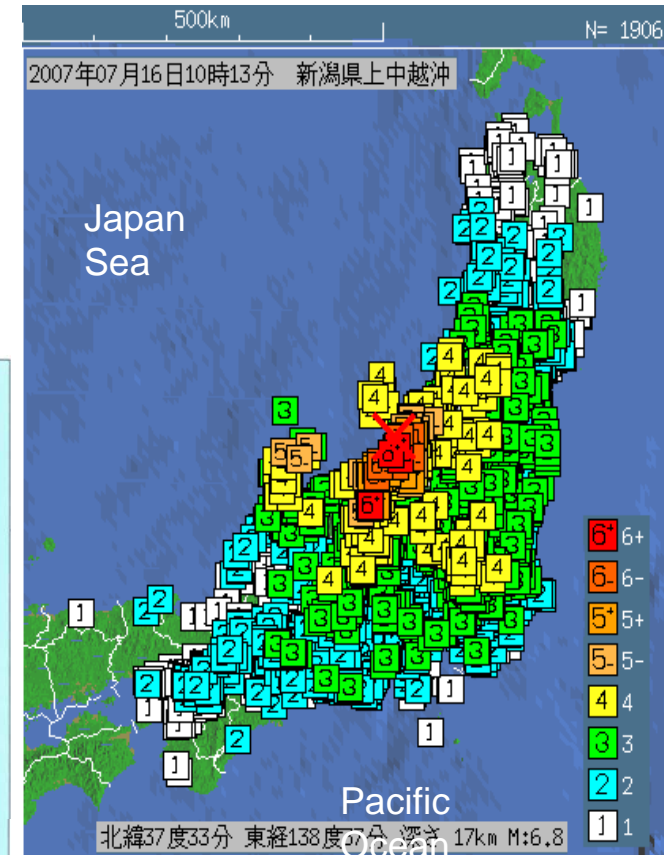
The Chuetsu-oki Earthquake

- July 16, 2007 10:13 AM (National Holiday)
- Magnitude on the Richter scale: 6.8 (JMA-Scale 6+, Kashiwazaki City)
- Depth: 17 km
- Distance from NPS: Epicenter → 16 km, Hypocenter → 23 km



2nd Large Earthquake

- July 16, 2007 15:37
- Magnitude 5.8
- JMA-Scale 6-, (Kashiwazaki City)



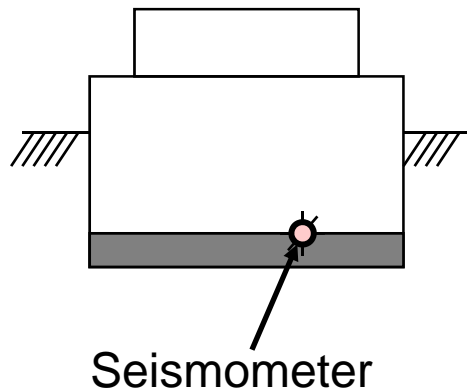
Distribution of seismic intensity (JMA)

Observed Acceleration at R/B Base Mat

Unit:Gal (cm/s/s)

	Horizontal-NS	Horizontal-EW	Vertical
Unit 1	311(274)	680(273)	408(235)
Unit 2	304(167)	606(167)	282(235)
Unit 3	308(192)	384(193)	311(235)
Unit 4	310(193)	492(194)	337(235)
Unit 5	277(249)	442(254)	205(235)
Unit 6	271(263)	322(263)	488(235)
Unit 7	267(263)	356(263)	355(235)

Design Value is in ()



◆ Set point for SCRAM (Automatic Shutdown)

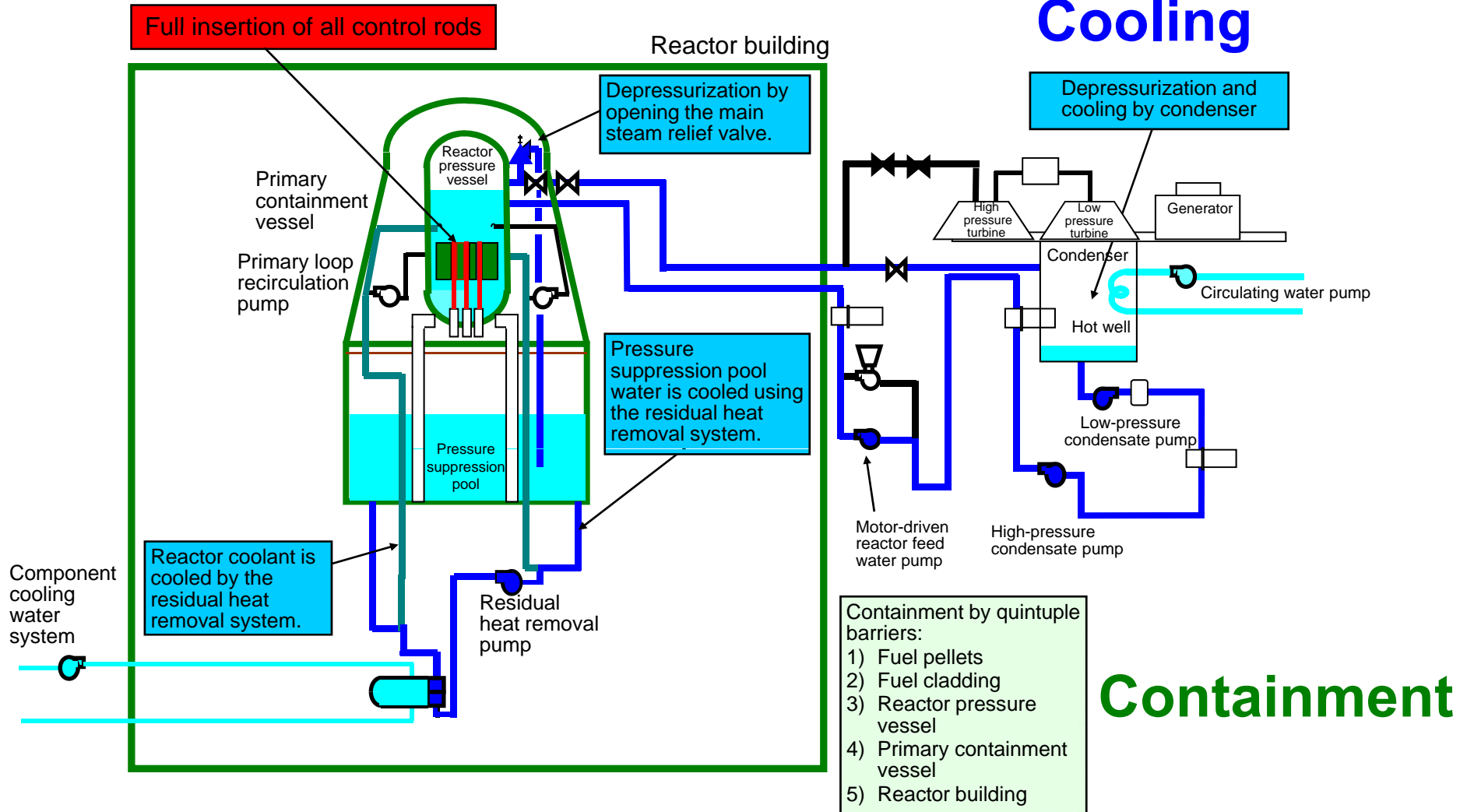
Horizontal : 120 Gal

Vertical: 100Gal

Three Fundamental Safety Functions Secured

Shutdown

Cooling



The Latest Status for Unit 1 to 7

As of April 2010

- **The Unit 6 & 7 : The unit 7 restarted its commercial operation on December 28, 2009, two years and nearly a half after the earthquake, unit 6 also restarted on January 19, 2010.**
- **The Unit 1 : Nuclear and Industrial safety Agency and Nuclear Safety Commission confirmed its safety condition by April 15, TEPCO applied to acquire the approval from local community governments, Kashiwazaki city, Kariwa village and Niigata prefecture.**
- **The unit 5 completed the system function examination.**
- **The unit 2, 3,4 are still under safety inspection by TEPCO**



Thank you for your attention ♪