Cooperation Agreement for Information Exchangewith the CEA

For Reference September 23, 2015 Tokyo Electric Power Company

Background

Tokyo Electric Power Company (TEPCO) considers that it is worthwhile to share expertise of overseas operators with corresponding decommissioning experiences to decommission Fukushima Daiichi Nuclear Power Station. TEPCO has also been cooperating with the U.S. Department of Energy and Sellafield Ltd in the UK.

The Commissariat à l'énergie atomique et aux énergies alternatives (CEA) has a broad range of technological development and experiences on management in decommissioning of reprocessing and nuclear facilities. The CEA and TEPCO agreed on exchanging information and experiences related to the management and technological challenges of decommissioning site and concluded the agreement.

Summary

- Date: September 23, 2015 12:00 p.m. (Local time)
- Place: CEA Saclay head office of Nuclear Energy Development Division
- CEA: Christophe Béhar, Director of Nuclear Energy Development Division
- TEPCO: Naohiro Masuda, Chief Decommissioning Officer (CDO) of Fukushima Daiichi D&D Engineering Company
- Content: A memorandum defining confidentiality for flexible information exchange with regards to both interests was signed. The information related to management of decommissioning site and technological topics etc., is to be exchanged.

Cooperation Agreement for Information Exchange with CEA

Photos at Concluding Agreement

*Top-left: In front of the CEA headquarters

Person-right: Christophe Béhar

Director of Nuclear Energy Development Division

Person-left: Naohiro Masuda CDO of

Fukushima Daiichi D&D Engineering Company

Top-right: the memorandum

Bottom-left: signing the memorandum

Bottom-right: hand-shaking after the signing











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Comment from Naohiro Masuda, CDO of Fukushima Daiichi D&D Engineering company, TEPCO

I believe that the conclusion of the information exchange agreement with the CEA is significant for TEPCO to proceed Fukushima Daiichi decommissioning safely and steadily. Knowledge and experiences of the CEA in the areas of R & D and decommissioning would help TEPCO incorporate international expertise.

We expect to learn from the CEA's many years of valuable experience of managing from technological development to the applications onsite with partner companies, in the fields of decommissioning and nuclear waste management under high radiation. At the same time, we would like to make this agreement with the CEA mutually beneficial by sharing our lessons from ongoing as well as future efforts.

Comment from Christophe Béhar, Director of Nuclear Energy Development Division, CEA

TEPCO is facing a tremendous task, the one of dismantling and decommissioning in a steady and safe way the Fukushima Daiichi site. Nuclear energy division of CEA has, on its side, a large experience of decommissioning and dismantling old facilities, like reactors, hot labs, reprocessing plants, and also to recover legacy wastes in different forms and quantities of different types.

I believe that sharing this experience with TEPCO can be a valuable input. The D&D programs are extremely complex, long term endeavors, require a high level of technology, know how, and also financial commitment in the long term. The nuclear energy division of CEA, responsible for all D&D activities of CEA, is proud through the signature of this agreement to be engaged in a long term relationship with TEPCO, and hopes to share its experience, while learning a lot through the different steps of the future decommissioning of Fukushima Daiichi plant.

For Reference: Relationship with CEA and its technology

Relationship between TEPCO and CEA

- Nov 3-7, 2014: Naohiro Masuda, CDO visited the Marcoule Nuclear Site in conjunction with participating in the meeting for nuclear industrial and research experts from Japan and France (N-20)
- Jun 1-2, 2015: Dr. Laurence Piketty, General Manager of Decommissioning Division, CEA, visited Fukushima Daiichi.
- Sep 23, 2015 : Signing of cooperation agreement for information exchange

CEA's main facilities

- Marcoule Nuclear Site: Various activities such as nuclear power generation, reprocessing spent fuel, and fast breeding reactor operations were conducted. Decommissioning is currently underway at the site.
- Cadarache Nuclear Research Site: A CEA nuclear research center which operates and dismantles the fast breeding reactor. It has laboratory for molten core concrete interaction.

CEA Knowledge and Technology

- CEA drives flexibly long-term projects with uncertain factors from research development to applications onsite by cooperating closely with domestic partners.
- CEA deals with decommissioning of nuclear reactors and reprocessing facilities through the development and operation of remotely controlled devices.



Dr. Laurence Piketty, General Manager of Decommissioning Division,



Decommissioning remote control room



Remotely controlled device



Decontamination using gel



Laser decontamination