What is the Oma Nuclear Power Plant?: Background of the Case Study

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THE OMA NUCLEAR POWER PLANT

The Oma Nuclear Power Plant is a nuclear power plant currently being built in Oma, Aomori, with a capacity of 1,383 MW. It is owned by Electric Power Development Co., Ltd (J-Power), a formerly state-owned company that was privatized in 2004. The plant is planned to be the world’s first reactor to use 100% mixed oxide (MOX) fuel, a fuel made by combining plutonium and uranium (Gendai Jimbunsha Henshubu 2012: 141).

Figure 1 Location of the Oma Nuclear Power Plant

BUILDING WITH MANY CHANGE OF THE PLAN

When the project was originally conceived, there was no intention to build a MOX reactor. In 1976, the Oma municipal assembly decided to invite the construction of a nuclear power plant in the town in order to promote economic development. The municipality had long been suffering from depopulation. In 1978, the Oma municipal assembly formally asked J-Power, which already had relations with Oma connected with another submarine electric cable project, to build a new nuclear power plant. Originally, the Atomic Energy Commission (AEC) planned to make the Oma reactor the first Canada Deuterium Uranium (CANDU) reactor, a pressurized heavy water reactor design developed in Canada (Gendai Jimbunsha Henshubu 2012: 142). In 1979, however, AES decided to cancel the CANDU reactor project in Oma due to fears that the design would lead to inefficient electricity generation. Nevertheless, the municipal assembly continued to look for an alternative project. In 1984, the assembly decided again to invite the company to construct a new Advanced Test Reactor (ATR) (Nomura 2015: 38).

Oma is famous for its tuna fishery and until 1987, many residents were strongly against the construction of a nuclear power plant (Inazawa and Miura 2014: 76). However, after the Oma and Okoppe Fishery Cooperative Associations established a subcommittee within their respective associations, which implied that they would be ready to negotiate with J-Power, the anti-nuclear movement in Oma almost faded away. In 1994, the both union formally agreed to the construction in exchange for compensation money (Inazawa and Miura 2014: 83-91). Asako Kumagai (熊谷あさ子), a farmer who passed away in 2006,
was one of the very few residents who continued to oppose the project and did not sell her land, located within the planned construction site, to J-power (Nomura 2015: 49-77; Inazawa and Miura 2014: 102-115). Her house, named Asako House (あさこはうす), in which her daughter Atsuko Kumagai now lives, became a symbolic place for people opposed to the construction of the Oma plant.

In 1995, AES announced that it would construct a MOX reactor instead of a CANDU reactor. In 2008, construction finally started after repeated changes to the plan and a review by AES. In March 2011, when a large earthquake caused an accident at the Fukushima Daiichi Nuclear Power Plant, the construction at Oma was 37.6% complete (Kontani 2011: 34), with a 2014 target date for commercial operation (The Japan Times March 12, 2013).

TEMPORAL STOP OF THE BUILDING AFTER THE FUKUSHIMA ACCIDENT

Following the accident at Fukushima, construction of the Oma plant virtually came to a stop. Meanwhile, concerns about the Oma nuclear power plant have grown, particularly among residents of the tourism and fishery city of Hakodate in Hokkaido, located 30 kilometers away from Oma, across the Tsugaru Strait. In April 2011, one month after the accident, Toshiki Kudo, who promised to support a freeze of the Oma plant construction, was elected as the new mayor of Hakodate (Kontani 2011: 36).

In September 2012, the DPJ government proposed a new energy plan, the Innovative Strategy for Energy and the Environment (革新的エネルギー・環境戦略, Kei Enerugi-Enjoh Sentetsu).

Table 1: A Chronology of the Oma Nuclear Power Plant

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>6</td>
<td>Oma Municipal Assembly decided to invite nuclear power plant</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td>AEC asked Oma to build a CANDU reactor</td>
</tr>
<tr>
<td>1979</td>
<td>8</td>
<td>AEC canceled the CANDU reactor project</td>
</tr>
<tr>
<td>1984</td>
<td>12</td>
<td>Oma Municipal Assembly decided to invite ATR reactor project</td>
</tr>
<tr>
<td>1987</td>
<td>6</td>
<td>Oma and Okoppe Fishery Cooperate Associations decided to establish a subcommittee to negotiate with J-Power</td>
</tr>
<tr>
<td>1994</td>
<td>5</td>
<td>Oma and Okoppe FCAs agreed to the construction</td>
</tr>
<tr>
<td>1995</td>
<td>8</td>
<td>AES announced it would construct a MOX reactor</td>
</tr>
<tr>
<td>2006</td>
<td>5</td>
<td>Asako Kumagaya passed away (on 19)</td>
</tr>
<tr>
<td>2008</td>
<td>5</td>
<td>Construction started</td>
</tr>
<tr>
<td>2010</td>
<td>12</td>
<td>Citizen Group for the Oma Nuclear Power Plant Trial sued the central government and J-Power (on 24)</td>
</tr>
<tr>
<td>2011</td>
<td>3</td>
<td>Construction stopped because of 3/11</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>New Hakodate City Mayor Toshiki Kudo was elected</td>
</tr>
<tr>
<td>2012</td>
<td>9</td>
<td>Hakodate City assembly reached a unanimous decision calling for an unlimited freeze on construction (on 25)</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>J-Power announced it would restart construction (on 1)</td>
</tr>
<tr>
<td>2014</td>
<td>4</td>
<td>Hakodate sues the central government and J-Power (on 14)</td>
</tr>
</tbody>
</table>

Note: This chronology was prepared by the author based on the original chronology by Nomura (2015: 266-274)
環境戦略), which stated that Japan would not create any new nuclear power plants. However, the DPJ also announced on September 15 that they would accept the completion of nuclear power plant construction projects that were already underway. In response, on September 25 the Hakodate municipal assembly reached a unanimous decision calling for an unlimited freeze of the Oma plant’s construction. However, J-Power announced that they have restarted the construction of the Oma plant as of October 1 (Kontani 2013: 44-47).

On April 14, 2014, Hakodate sued the central government and J-power in the Tokyo District Court, demanding the cancellation of the Oma construction. This is the first case in Japan in which a local government has sued the state over nuclear power plant construction (Kontani 2014: 82-83). In 2010, before Hakodate launched its suit, the members of the Citizen Group for the Oma Nuclear Power Plant Trial (大間原発訴訟の会, see also Satoh’s article in this volume), whose main staff live in Hakodate, also sued J-Power and the central government. As such, two cases against the Oma plant construction are being fought in the courts at the same time.

Meanwhile, although J-Power restarted construction at Oma in 2012, they could not resume construction of the main part of the plant due to a delay caused by a review of the plant by the Nuclear Regulation Authority (NRA, 原子力規制委員会). In ongoing this review, the NRA is checking the plant according to the new safety standard installed after 3/11. As of September 8, 2016, J-Power announced that they would postpone the construction of the main part and resume it once again in 2018 (Nikkei September 8, 2016).

Notes

1 The population in Oma town reached its peak of 7982 in 1960 and then decreased by 2.9% to 7753 in 1975 (Aomori Prefecture 2017). Although the ratio of the decrease is not large, it still marks a sharp contrast with the growth of the population in the nationwide, where the population grew by 19% (from 94,419,000 to 111,940,000) in the same period (The Statistics Bureau 2017).

References


Kontani, Yoshitaka, 2014, “Hakodate City started the lawsuit to demand the cancel of the Oma Nuclear construction. The first local government nuclear power plants lawsuit,” Assembly and Local Government, 194: 82-86. (=紺谷克孝, 2014, 「大間原発裁判を提起(函館市)」「議会と自治体」194: 82-86.)

Nikkei, 2016, “J-Power postpone the restart of the construction for two years due to the delay of the review,” posted on Sept. 8, 2016 (http://www.nikkei.com/article/DGXLA5FB07H4E_X00C16A9L01000/, Retrieved on January 22, 2017.)(=日本経済新聞 2016年9月8日付「パワー、大間原発の工事再開2年延期 審査長期化で」).
