

Don't Follow Suit of Russia in Contaminating Sea

Yasushi Tomiyama

Tokyo Electric Power Co. has dumped “low-level” radiation contaminated water into the Pacific Ocean in dealing with radioactive substances' leaks from the Fukushima Daiichi nuclear plant crippled by the March 11 earthquake and tsunami disaster. Dumping of radioactive substances into sea is a forbidden measure that the former Soviet Union took in the past. Japan should not follow suit of Russia.

Responsibility for future generations

Tokyo Electric Power explained that it released low-level contaminated water into the ocean in order to secure storages for high-level contaminated water. But University of Georgia Professor Cham E. Dallas, a nuclear plant accident expert, doubted the advisability of the dumping decision at a recent meeting of the Japan Institute for National Fundamentals. He led a U.S. team that investigated the 1986 Chernobyl nuclear plant accident's damage to human health over a decade.

The professor said that the best choice was not to eject radioactive waters into the ocean however wide the sea was. Although the choices might have been limited, throwing into the ocean should be the last option, he said. “It is an option you can do without getting health problems right away, but it is our responsibility to care for our future generations,” he added.

According to the professor, the United States built dams to stem rivers in order to prevent radioactive substances from leaking into the ocean in dealing with a nuclear plant accident. But the former Soviet Union failed to take such measure, he said.

The former Soviet Union, which also dumped nuclear reactors of accident-hit submarines in the Arctic sea, can be viewed as the world's largest contaminator of the sea with radioactive substances. Japan should model itself after the United States, not the former Soviet Union.

No birth defect from radiation

At the same time, the professor made a surprise remark denying any serious effects of radioactive substances on unborn children.

“What is not known by most people is that very little birth defects occur from radiation. At Chernobyl, there were none. If you look closely at the Hiroshima-Nagasaki data, the number of birth defects is very small,” he said.

According to Professor Dallas, the radiation dose emitted during the Chernobyl accident was 100 times more than the total radiation dose of atomic bombings in Hiroshima and Nagasaki combined. Of 90,000 pregnant women at the time of the accident, 30,000 aborted unborn children on fears of birth defects. But a follow-up survey of children born by the remaining 60,000 women indicated no difference in health conditions of children between radiation-contaminated and other regions.

While actual impacts seen on small number of newborn babies in Hiroshima and Nagasaki were attributable to people's direct exposure to radiation, radiation substances emitted at the Chernobyl accident dispersed into the atmosphere and had no impact on unborn children, the professor said.

Professor Dallas also noted that although radioactive substances emitted from nuclear plants would be carcinogenic, the cancer incidence rate for a nuclear plant accident would be far lower than for a nuclear war. But thyroid cancer patients emerged in only five years from the Chernobyl accident, against 15 years from the Hiroshima and Nagasaki bombings. The faster cancer emergence for the Chernobyl accident might have been attributable to more radiation dose, according to the professor. The Fukushima nuclear reactor accident has fallen short of causing a reactor core meltdown that could lead to massive radiation into the atmosphere. In order to prevent health damage fears from being stirred up excessively, the Japanese government should disclose accurate, sufficient information.

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