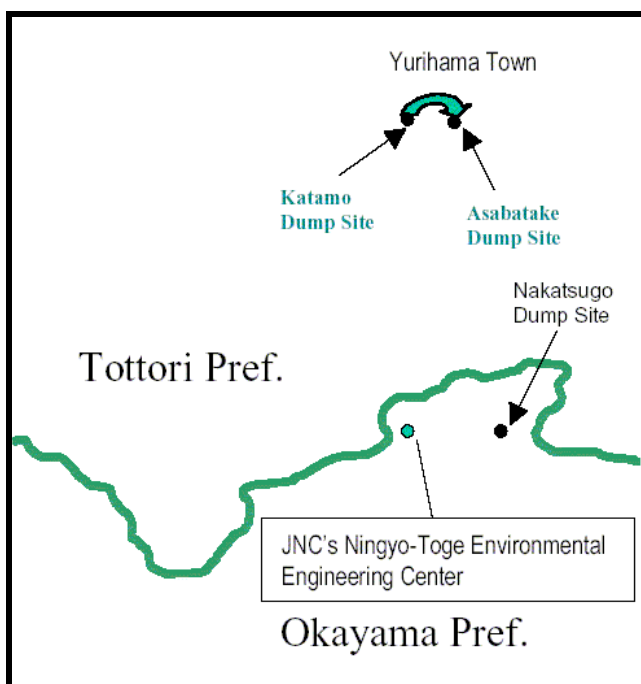


# Sound and Fury: The Tale of the Uranium Soil

On January 17, the Japan Nuclear Cycle Development Institute (JNC) began exploratory drilling at the Asabatake Dump Site in Yurihama Town (Tottori Pref.). The drilling comprises: (i) one horizontal drilling at a depth of about 90m, where JNC plans to dig an inclined shaft, and (ii) vertical drillings to a depth of 20-50m at five neighboring locations. One of the five vertical drilling sites is within a forest preserve, and permission for drilling there has not been granted as of this writing. JNC will carry out the exploratory drilling through mid-February, and, based on the results, prepare a further working schedule by the following month.

The exploratory drilling is part of a plan to resolve an issue of surplus “uranium soil.” JNC plans to cut an inclined shaft through a granite layer at the Asabatake Dump Site, and bury the soil in the shaft. The soil, about 3,000m<sup>3</sup>, will be removed from the Katamo District and carried to Asabatake. The shaft will be backfilled and the area restored to its original condition.



## The Beginning

In the 1950s and '60s, the Japan Atomic Fuel Corp. (JAFC) prospected for uranium around the country. Tunnels were dug where deposits were indicated, reaching to where the uranium ore was located. The ore was then extracted through the tunnels. Under the Mine Safety Law, rock, soil and sand from the tunnels was piled near the pit heads. Such material is referred to here as “uranium soil” – a term that originated with the anti-nuclear advocates. Under the law, the material is officially classified as waste rock.

In other words, “uranium soil” contains uranium in extremely small quantities, as it initially existed, naturally, in those places. It is local – not brought from any other place. There are 22 of those so-called “dump sites” in Okayama and Tottori Prefectures.

## The “Problem”

In August 1988, a newspaper reported that soil containing “highly radioactive uranium” had been abandoned at the Nakatsugo Dump Site in Okayama Prefecture. After the report, the Power Reactor and Nuclear Fuel Development Corporation (PNC) (JAFC’s successor, and predecessor to the current JNC) and the governments of Okayama and Tottori Prefectures undertook separate environmental studies, none of which found any adverse effects on the environment. Both the prefectures then established committees consisting of university professors, specialists and other learned people. Thereafter, those committees met annually to consider the results of on-site investigations (including measurements of concentrations of uranium and radium in river water and riverbed soil), carried out every three months by both prefectures and by PNC/JNC. They never found any effects on the environment.

However, Hiroaki Koide, an assistant at the Kyoto University Research Reactor Institute, published a book in which he wrote the following statement: “The water, soil, vegetation and air are all terribly

contaminated due to the abandoned uranium soil.” Koide is an anti-nuclear advocate, and his unscientific claims often stir up the public. Some residents of the Katamo District in Yurihama Town (Tottori Pref.), where one of the dump sites is located, became convinced that the uranium soil was dangerous, and anti-nuclear groups argued that “abandoning uranium soil in the open air symbolizes the sloppy nuclear administration in Japan.”

## The Agreement

PNC’s lease on the Katamo Dump Site ran from 1958 through 1978. Under the terms of the lease, PNC was not required upon its expiry to restore the land to its original condition; that is, the soil was left as it was. And the land was in fact returned to the owner without objection.

In 1989, however, it was expected that the Mine Safety Law would be revised. The concept of a “monitoring zone around a controlled area” was to be introduced. Where radiation exceeded 1mSv per year, certain measures would be required, including limiting entry. That compelled PNC to lease the Katamo Dump Site once more; as a condition of the new lease, the owner of the site insisted that PNC agree to remove the soil.

In August 1990, PNC concluded the lease and agreed with the owner to remove the soil on the condition of “cooperation with a related municipality.” That meant it would remove the soil only after obtaining the consent of the municipality to which the soil would be taken. To PNC, it was obvious that it would not be able to remove the soil without having a new place to put it. That is quite natural.

PNC/JNC did try to find a new site in Okayama or Tottori Prefectures, but failed to obtain consent from any municipality there. In Okayama, which has boasts nation’s largest uranium mine at Ningyo-toge, the prefectural governor himself declared, “This prefecture will never accept something that Tottori Prefecture describes as dangerous.” Clearly, the issue of “uranium soil” had taken on an emotional component that completely obscured the question of “Is the soil really dangerous or not?” – a question easily answerable scientifically.

## The Law Suit

In December 2000, the Katamo District filed a suit against JNC, demanding that it fulfill the agreement to remove the uranium soil. The argument did not deal with the soil’s safety, but whether the

language contained in the agreement about “cooperation with a related municipality” was a necessary condition. That is, was JNC obliged to remove the soil only if it could find a municipality to accept it, or was it obliged to remove it after a certain time, irrespective of cooperation? In other words, it was a civil case over the legal interpretation of language in a contract.

In June 2002, the Tottori District Court, the court of first instance, ruled that JNC had to remove all uranium soil (about 3,000m<sup>3</sup>) remaining in the Katamo District. The court issued no views on where the soil – which had piled up there for 40 years – should be taken. In February last year, the Matsue Branch of the Hiroshima High Court dismissed JNC’s appeal, saying, “It is presumed that local residents must consent before such soil can be brought in, but that is not a legal requirement.” In October of the same year, the Supreme Court dismissed JNC’s final appeal, making the lower court’s decision ordering JNC to remove the soil binding. The issue had thus been legally settled.

## The Governor

Tottori Gov. Yoshihiro Katayama remained firmly on the side of the Katamo District as the case worked its way through the courts. He has garnered much of admiration throughout the country as a standard-bearer for local autonomy.

At a press conference immediately after the announcement of the district court decision – referring to comments from Okayama Prefecture that the case was between JNC and local Tottori residents, and that Okayama had nothing to do with it – Katayama said, “JNC should implement the soil removal according to the decision, regardless of what Okayama Prefecture wants.” He implied that the soil should obviously be taken to Ningyo-toge in Okayama.

Katayama next welcomed the High Court’s decision. The dismissal of JNC’s appeal, he said, “has increased trust in the judiciary.” In his statements to the press, he continued, “JNC has insisted that it cannot move the soil to Ningyo-toge, because Okayama has not agreed to it. But the court decision shows that to be possible, notwithstanding.” He even addressed Okayama Prefecture directly, saying, “The prefecture should not block JNC from taking the soil to Ningyo-toge.”

Finally, at his press conference following the Supreme Court’s ruling, Katayama, kicked into high gear. Directing his comments to Okayama Prefecture,

which had once again expressed its rejection of the soil, he declared: “I cannot understand them – repeatedly saying the same thing over and over, like a broken record. The prefecture should recognize that the Supreme Court’s decision has changed the situation.” Continuing to speak broadly, he said: “It is JNC who will decide. There is nothing for us to worry about.”

In his mind, then, there was only one possibility: The soil was going to Ningyo-toge.

## The Turnabout

JNC was in a severe bind, as it could not act under court order in the face of local municipality’s disagreement. It was against fair and equitable principles to take the soil to Okayama without that prefecture’s permission, the court’s decision notwithstanding. Moreover, the land at Ningyo-toge was not owned by JNC, but only leased. JNC had to look to its own lands for a suitable location, and fast. When JNC announced its decision, Gov. Katayama must have turned very pale.

Last November 11, JNC announced that it would move the soil to the Asabatake Dump Site at the Togo Mine, in Yurihama Town (Tottori Pref.), where the Katamo District is also located. JNC has since filed an application for permission with the prefecture. The Asabatake Dump Site is owned by JNC, allowing it to accept the soil and manage it permanently. Although resistance is expected from the local municipality, the judiciary (i.e., the High Court) sees no legal impediment. Indeed, as Gov. Katayama, citing the courts, repeatedly told JNC, “No local agreement is necessary.” He seems to have reaped what he had sown.

At a press conference on November 15, the governor was nothing short of amazing. “While the judiciary’s decision did not refer to where the soil would be taken,” he said, “the assumption was always that it would be Ningyo-toge. It is extremely unreasonable for JNC to seize on the language that local agreement is not required, so as to decide now to move the soil Asabatake. JNC is defying the judiciary and is challenging the rules of society.” Which could, as well, be said about him.

## Signifying Nothing

To repeat: The “uranium soil” that Gov. Katayama

wanted sent from Tottori to Okayama was native to Tottori anyway, and exhibited only the natural level of radiation there. A committee established by Tottori Prefecture itself concluded, based on on-site investigations by multiple parties conducted every three months, that it had no deleterious environmental effect. How did he view the results of those scientific studies? Not seriously, obviously, but why not?

On January 12, 2005, another newspaper revelation was made: “Measurements of radon concentration in water from a drain at the Asabatake Dump Site show values of 2,200 pCi/liter, higher than those of ordinary river water.” Again, an anti-nuclear group that claimed to be a “citizens’ organization” supporting the residents in the Katamo District had released the results of analyses by the same Hiroaki Koide, which the mass media had quoted without independent verification.

On January 13, JNC rightly laughed that report away: “Radon concentrations in underground water are typically higher by one or two orders of magnitude – i.e., one or two digits – than in river water. Radon concentrations in 100 famed brands of mineral water in Japan range from 350 to 2,670 pCi/liter. At some hot springs in Japan, the concentration even exceeds 100,000 pCi/liter.”

Gov. Katayama, whose responsibilities include protecting the lives and health of people in the prefecture, should challenge and correct such inaccurate representations by anti-nuclear organizations, which unnecessarily provoke concern among the citizens. As a politician, moreover, he seems to advocate “true local autonomy.” But unless he also demonstrates reasonableness and respect for scientific facts, his “autonomy” appears more akin to the emotional reactions of a rebellious child – a reflexive opposition to the national government.

JNC has not yet announced the costs that would be involved in removing the soil from Katamo, but they appear to be over ¥300 million. Those costs, and all the others, including the legal costs to PNC and JNC (which are governmental corporations), and to Tottori Prefecture and Yurihama Town (which each paid 50% in support the lawsuit by the Katamo District), were or will be paid by the taxpayers of the town, the prefecture and the nation. It’s really quite a lot of money for something not based on scientific evidence.

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