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CNIC Citizens' Nuclear Information Center

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Uranium Trials Begin at Rokkasho

Protesting in the snow: Outside the gates of the Rokkasho Reprocessing Plant (21 Dec. 2004)

Atomic Energy Commission endorses reprocessing

On 12 November 2004 the Atomic Energy Commission's (AEC) Long Term Nuclear Program Planning Committee (see NIT 101, 103) released an interim report endorsing Japan's existing nuclear fuel cycle policy. A final report is not expected until autumn this year, but the interim report was released as a summary of the committee's deliberations on spent fuel and the Rokkasho Reprocessing Plant (RRP).

The Committee's main recommendations are as follows:

(1) Aim for the effective use of nuclear fuel resources, at the same time as assuring safety and nuclear non-proliferation. Adopt as a basic policy the reprocessing of spent fuel and effective use of the plutonium and uranium that is extracted.

(2) For the time being, reprocess to the capacity of RRP and place spent fuel in excess of this capacity in interim storage.

(3) Begin consideration of how to deal with the excess spent fuel in 2010, taking into account the track record of RRP and the state of research and development into the fast breeder reactor.

(4) Government and industry to carry out research necessary to respond to future uncer-

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tainty.

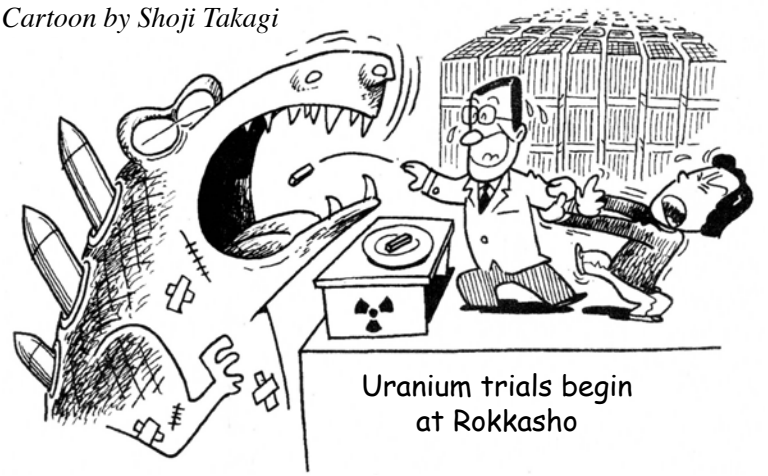
Translating this into more comprehensible English, of the 1,100 tons of spent fuel produced in Japan's nuclear power plants each year, 800 tons will be reprocessed at Rokkasho and the remainder will be stored in a big interim storage facility. The question of what to do with the excess will be deferred until 2010 and a final decision will be made before RRP is closed down. This scenario is based on the assumption that RRP will commence operations in July 2006 and operate for twenty years at 100% capacity.

Uranium trials begin at Rokkasho

Chemical trials at RPP (using nitric acid etc.), which were carried out after the completion of the construction phase, have been completed. The next stage is uranium trials (using depleted uranium), followed by active trials (using spent fuel), before the scheduled commencement of operations in July 2006. However, with an estimated total cost of construction, operation and dismantling of 11 trillion yen, even supporters of nuclear energy are questioning the wisdom of proceeding with these trials. If the plant is shut down now, the investment to date of 2.44 trillion yen is a sunk cost. However, once uranium trials begin and it becomes radioactively contaminated, the figure being bandied about for disposal costs is 0.45 trillion yen. This increases to 1.55 trillion yen if the plant becomes operational. Large though these figures are, there is no way of guaranteeing that the final costs won't be much greater. In order to avoid these additional costs, and also because of the surplus plutonium that will result from reprocessing, people are calling for the RPP plan to be cancelled.

Nevertheless, following the release of AEC's report, on December 21 Japan Nuclear Fuel Ltd. (JNFL) announced that it was commencing the uranium trials. At this stage it has only just begun the preparatory stage in the major buildings. The real trials will begin in February at the earliest. JNFL's plan is to conclude the trials within one year and, after receiving government approval, to then advance to the active trials.

Cartoon by Shoji Takagi



The uranium trials will involve 26 tons of depleted uranium powder and another 27 tons of dummy fuel rods. Originally JNFL had planned to use depleted uranium from the uranium enrichment plant on the same property, but the approval procedures were not concluded in time, so in the end it was imported from the US. The schedule is very tight, so the trials will be carried out building by building, process by process. As a consequence, numerous pipes have been set up just for the trials. These will all be removed when the trials are completed.

JNFL claims that the types of problems and accidents anticipated in the trials take into account all the issues that arose at other reprocessing plants - THORP, UP-3 and Tokai. But of course, nobody actually believes this. Rather, if past experience is anything to go by, we would expect unforeseen problems to arise, as well as delays in the schedule.

Masako Sawai (CNIC)

Recently we have included a map showing the places mentioned in each edition of NIT. This time refer to the map of all the nuclear facilities in Japan on page 8.

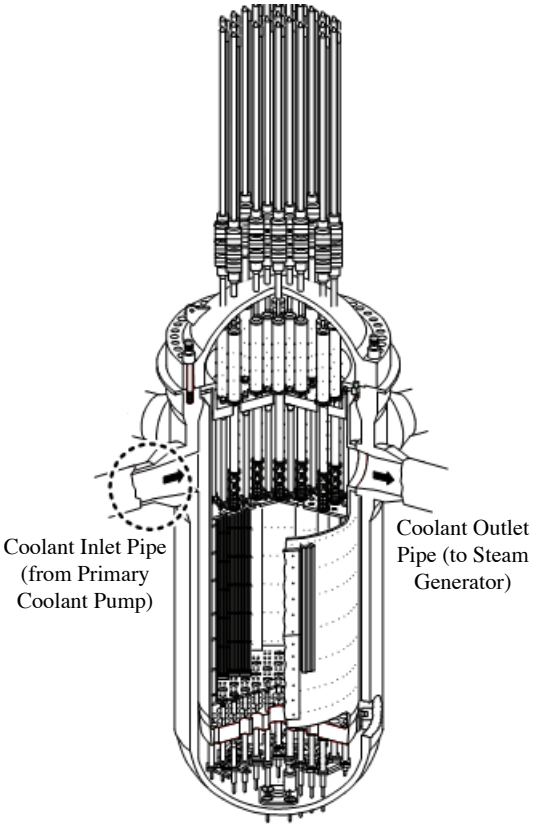
Cracks in Ohi-3 and Ikata-1: Companies' Responses

This article begins with a follow-up on the report in NIT 101 about cracks in the Ohi-3 (PWR, 1,180 MW) reactor vessel head, then reports on the cracks that were discovered later in the primary coolant inlet pipe nozzle on the reactor vessel at Ikata-1 (PWR, 566 MW).

Ohi-3

On October 19 Kansai Electric Power Company (KEPCO) announced its response to the cracks in the Ohi-3 reactor head. KEPCO concluded that at the time of manufacture the post-weld treatment of the welds of the control rod drive mechanism was inadequate and that this led to stress corrosion cracking. It has decided to replace the head during the periodic inspection beginning in September 2006. In the meantime, as a stopgap measure, it decided to weld over the inner side of the cracks and attach a moisture monitor to detect any leaks. This it swiftly did and restarted the reactor on January 11, with the cracks still there.

Diagram 1: Pressurized Water Reactor

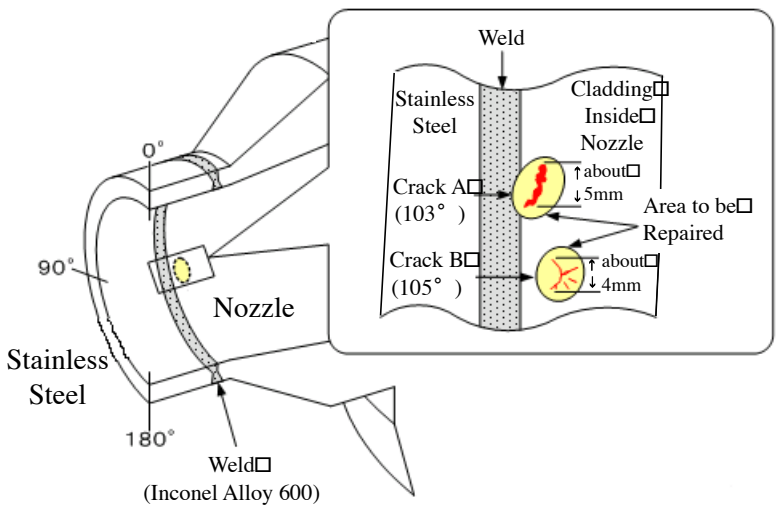


Ikata-1

Around one month after the Ohi-3 response was announced, on November 14, Shikoku Electric Power Company announced that cracks had been discovered in the primary coolant inlet pipe nozzle on the reactor vessel at Ikata-1. The cracks were found in one of two nozzles (nozzle B), where the primary coolant re-enters the reactor vessel, after returning from the steam generator.

Ikata-1 has been undergoing a periodic inspection since September 5 and is expected to be out of operation for a total of five months. During that time, in preparation for loading Step II high burn-up fuel (refer NIT 102 News Watch), major work will be done including the following: the core barrel will be replaced, extra control rods will be added, a boric acid concentration tank will be added. In addition, stainless steel pipes in such areas as the primary coolant residual heat removal system will be replaced and measures are planned to deal with stress corrosion cracking of Inconel Alloy 600 (a nickel-based alloy) welds in areas such

Diagram 2: Location of Ikata-1 Cracks



as the reactor vessel nozzles.

At the time of the announcement, Shikoku Electric was preparing to apply laser treatment to relieve residual stress around welds of reactor vessel inlet nozzles. The cracks were found in Inconel Alloy 600 welds joining a stainless steel pipe to a carbon steel nozzle with an outer diameter of 90cm and a thickness of 8cm. There is cladding inside the nozzle and the cracks were found at the point where the stainless steel pipe was welded to this cladding. Two cracks, 5mm and 4mm long, were found.

According to a November 22 announcement by Shikoku Electric, an inspection involving grinding the area showed that the cracks were 3mm deep at the deepest point, but they didn't penetrate through the 5mm thick cladding to the nozzle itself. It could be seen that the welds where these two cracks were located had been touched up after the original welding. Inconel Alloy 600 had been used for this. It would seem that there is a high probability that the cracks are stress corrosion cracks caused by residual stress from this touch-up welding. It is easy to imagine that problems might have arisen in the original welding, but the reason for the welding repairs carried out at the time remains unclear.

On December 1 Shikoku Electric announced the method by which they intend to repair the welds. They will weld over the cracks using Inconel Alloy 690, which is thought to be comparatively resistant to stress corrosion cracking.

Given that the cracks were found in the reactor's Primary Coolant Inlet, even if they were small they should not be treated lightly, because the cracking could have progressed and led to a major leak of primary coolant. After the measures announced by Shikoku Electric are carried out, the cracks will still remain, so it can hardly be called an adequate response.

Chihiro Kamisawa (CNIC)

New Column

To provide a relief from the technical detail that inevitably dominates a publication like NIT, we have decided to include an English haiku in future editions, when space allows. Hopefully, as time goes by, people might sense that they are getting a glimpse of Japanese culture as well.

Traditionally haiku include a reference to the season, although the reference is often obscure to people not familiar with the genre. Japanese haiku hold fairly strictly to the 5-7-5 syllabic pattern, but most people accept more flexibility in English haiku. Japanese is a strictly syllabic language, as anyone who has studied it will know, whereas English poetry is more preoccupied with rhythm and stress.

Our first offering shouldn't be too difficult for people of any culture to understand:

New Year's Day
Nothing special to change
But my attitude

by Sachiko Kondo

Continued from page 12 an armed attack is predicted, situations where a military attack has occurred, and situations where an urgent response is required. In these circumstances an order would be given to nuclear power operators to shut down their reactors. When an unexpected situation arises, nuclear power operators may shut down their reactors at their own discretion, without waiting for the government's order. Depending on the situation, shutdown could be done either as an ordinary shutdown, or as an emergency shutdown. In the case of a 'situation where an urgent response is required', it was decided that an emergency shutdown would be required.

When an alert is announced of a 'situation where an armed attack is predicted', nuclear power operators would immediately begin preparations for reactor shutdown, including securing alternative power. In other words, at any given time it must be possible to shutdown all reactors at the same time.

Stop Press: Hamaoka-5 (BWR, 1,380 MW) commenced operations on 18 January 2005.

Nuclear Court Cases in Japan

CNIC frequently refers to legal issues in its articles about the campaigns being waged against nuclear facilities in Japan. We thought readers might be interested in some background on the various legal challenges that have been made over the years. After some introductory comments about the legal system in Japan (which is probably very similar to that in other countries), this article will discuss some specific cases and general trends that can be discerned.

Legal context

There are various different types of litigation that can arise in relation to nuclear facilities. One type is where residents/citizens demand that the construction or operation of a nuclear facility be stopped. This type can be broken down into two sub-types: administrative cases, where the government is the defendant and the petitioner demands that the approval for the facility be annulled, and civil cases, where the company is the defendant and the petitioner demands that construction and/or operations be terminated.

In contrast to these types, there are also cases where citizens are prosecuted. These might include civil cases where property rights are challenged, or criminal cases relating to the actions of activists at the site (for example illegal entry, or violence). In the case of criminal suits, the Public Prosecutor lays the charges.

Some cases are heard by a summary court, but the majority of cases are heard by a District Court. If either party is dissatisfied with the decision, they may appeal the case to the regional High Court. If there is still dissatisfaction, it is sometimes possible to take the matter to the Supreme Court, but this is only allowed under certain circumstances: where there is a Constitutional issue involved, where a particularly important law is involved, or where the decision goes against a Supreme Court precedent.

Administrative Cases

Before an action can be filed challenging governmental approval for a nuclear facility, an objection must be lodged within 60 days of the granting of that approval. The objection is lodged with the agency which granted the approval. If the objection is dismissed, or if it is not responded to within three months, it is possible to proceed with court action.

Major examples of ***administrative cases*** are listed in table 1. *Table 1*

Facility	Date lodged	Decision date	Status	Claim
Ikata-1	1973	1992	Rejected by Supreme Court	Annulment of license
Tokai II	1973	2004	Rejected by Supreme Court	Annulment of license
Fukushima II-1	1975	1992	Rejected by Supreme Court	Annulment of license
Ikata-2	1978	2000	Rejected by Matsuyama District Court	Annulment of license
Kashiwazaki-Kariwa-1	1979	Pending	Rejected by Niigata District Court in 1994, currently being considered by Tokyo High Court	Annulment of license
Monju Fast Breeder Reactor	1985	Pending	Citizens□demand accepted by Nagoya High Court in 2003, currently being considered by the Supreme Court	Invalid approval
Rokkasho Uranium Enrichment Plant	1989	Pending	Rejected by Aomori District Court in 2000, currently being considered by Sendai High Court	Annulment of license
Rokkasho Low Level Waste Storage Facility	1991	Pending	Currently being considered by Aomori District Court	Annulment of license
Rokkasho High Level Waste Storage Facility	1993	Pending	Currently being considered by Aomori District Court	Annulment of license
Rokkasho Reprocessing Plant	1993	Pending	Currently being considered by Aomori District Court	Annulment of license

A glance at this table will reveal that these cases have all taken a long time. The longest one started way back in 1973 and reached a final conclusion in 2004. The Supreme Court has handed down a decision in only three cases and two of these decisions were handed down at the same time.

Unfortunately, not one of the above cases has resulted in a final victory for the citizens, although the Monju Fast Breeder Reactor case may prove to be the exception to the rule. However, the above Supreme Court decisions were extremely useful in the case against Monju. (In that case the Nagoya High Court ruled that the license was invalid - see discussion below). According to the Supreme

Court, the approval is deemed to be illegal if, "in the light of current scientific and technological standards", the assessment standards are unreasonable, or if there are "flaws or blunders that cannot be overlooked" in the safety assessment process.

The reason why there was no appeal in the Ikata-2 case was, in the words of the group of petitioners who conducted the case, "because we don't expect a better judgment from the current judges". This was the only case in which citizens represented themselves without the aid of a lawyer. It is probably hard to imagine just how challenging this would be, but despite the difficulty of their task, they managed to extract a recognition that there were mistakes in part of the safety assessment.

The Monju case: the only citizen victory

The Monju decision did not 'annul' the license approval. The citizens were unable to demand this, because they had not lodged the abovementioned objection. Instead the decision 'invalidated' the approval. It is possible to sue to have the approval invalidated, even if an objection has not been lodged, but compared to annulment of the license approval the legal breach must be more serious.

The Monju case was initiated in 1985. It was simultaneously an administrative case, in which the government was accused of granting an invalid license approval, and also a civil case, in which residents demanded that the Power Reactor and Nuclear Fuel Development Corporation (PNC) (now Japan Nuclear Cycle Development Institute (JNC)) terminate construction and operation of the facility. The reason why two cases were brought simultaneously was that it was uncertain whether the accusers would be granted status to bring the case under the very strict conditions of an 'invalid license' case.

In fact, in 1987 the Fukui District Court dismissed the case on the grounds that they didn't have status. This was appealed to the Nagoya High Court, which accorded status only to those who lived within a 20 km radius of Monju. The citizens who were denied status in turn appealed to the Supreme Court, while the government appealed against the decision to grant status to people within 20 km. In 1992 the Supreme Court ruled that people living within a 60 km radius (i.e. all accusers) were eligible and returned the case to the full Fukui District Court. The Supreme Court ruled that these people were "people who live in an area which, in the event of a disaster etc. that could occur as a result of a blunder or flaw [in the safety assessment], would be expected to sustain direct and serious damage."

The Fukui District Court reconsidered their case and in 2000 ruled against them. The residents were dissatisfied with this ruling and appealed to the Nagoya High Court, which in 2003 ruled in their favor, invalidating the Monju license approval. The government then appealed to the Supreme Court and in December 2004 the Supreme Court decided that it would hear the case. The case is scheduled to begin in March 2005 (see News Watch).

In regard to the civil action, the Fukui District Court ruled against them in 2000, at the same time as it made its decision on the administrative case. The citizens group appealed, but when the High Court ruled in their favor on the administrative case, they withdrew their appeal.

Civil Cases

Recently civil suits have been the main type of litigation involving nuclear power plants (bearing in mind that Rokkasho is not a power plant). This isn't necessarily because the people bringing the suit have failed to lodge an objection as required for administrative cases. Administrative cases can only be argued within the framework of the question "was the license approval legal?" There was even a case where the court found that the approval was legal, but went on to say, "The question of whether or not the nuclear power plant is actually safe or not is beside the point." One reason for the preference for civil cases is dissatisfaction with decisions such as this. There is sometimes also a desire to lock horns directly with the company constructing and operating the facility in question.

Major examples of ***civil cases*** are listed in table 2.

The cases demanding the termination of operations each have their own peculiarities. The Fukushima II-3 case followed an accident involving a recirculation pump in 1989. It was an attempt to stop the company from recommencing operations while pieces of metal were left in the reactor and after having simply patched up the component.

Table 2

Facility	Date lodged	Decision date	Status	Claim
Onagawa-1,2	1981	2000	Rejected by Supreme Court	Termination of construction and operation
Monju	1985	Withdrawn 2003	Rejected by Fukui District Court and appealed to the Nagoya High Court before being withdrawn	Termination of construction and operation
Tomari-1,2	1988	1999	Rejected by Sapporo District Court, no appeal	Termination of construction and operation
Shika-1	1988	2000	Rejected by Supreme Court	Termination of construction and operation
Fukushima II-3	1991	2000	Rejected by Supreme Court	Termination of operation
Takahama-2	1991	1993	Rejected by Osaka High Court, no appeal	Termination of operation
Shimane-1,2	1999	Pending	Currently being considered by Matsue District Court	Termination of operation
Shika-2	1999	Pending	Currently being considered by Kanazawa District Court	Termination of construction and operation
Hamaoka-1-4	2003	Pending	Currently being considered by Shizuoka District Court	Termination of operation

The Takahama action was an attempt to prevent reactor number 2 from being restarted after a routine inspection discovered problems in 46% of the pipes in the steam generator. The generator was subsequently replaced in its entirety. In the latter of these cases, despite rejecting the petitioners' challenge, the court warned of the danger of the pipes bursting. No appeal was lodged.

In the Tomari case, which demanded the termination of both construction and operation, the court suggested that the possibility of an accident couldn't be dismissed and that the problem of the disposal of radioactive waste was unresolved. In its verdict the court said, "Ending nuclear power generation is one available option." The petitioners concluded that they had extracted some significant admissions from the court and decided against launching an appeal. The Shimane suit is based upon the discovery of an active fault near the nuclear power plant. Similarly, the petitioners in the Hamaoka case are calling for the plant to cease operations because the plant is located on the predicted center of the next great Tokai earthquake.

There have also been three ***compensation cases*** related to exposure to radiation (table 3).

There have been many other civil cases involving nuclear facilities, besides the cases discussed here. Examples include a claim for access to information in regard to transport of nuclear fuel and claims over property rights at sites for proposed nuclear facilities.

Criminal Cases

There have also been many criminal cases, but they weren't specifically related to nuclear power, so they are not discussed here.

Conclusion

The courts are not insensitive to public opinion in the decisions they hand down. Looked at from that angle, one would expect citizens and residents to chalk up a few wins in future. We wait with bated breath for the Supreme Court's decision in the Monju case. If the High Court's decision is endorsed, the approval to build Monju will become invalid. (It will still be possible to reapply for a license, but it won't be possible to reopen the plant until that license is forthcoming.) However, even in those cases where the residents/citizens have lost, they have managed to extract masses of useful documents from the power companies and the government. We should also not forget that the court cases, via the mass media, have drawn attention to the issues and thus helped to shape public opinion to become more critical of nuclear energy.

Baku Nishio (CNIC Co-Director)

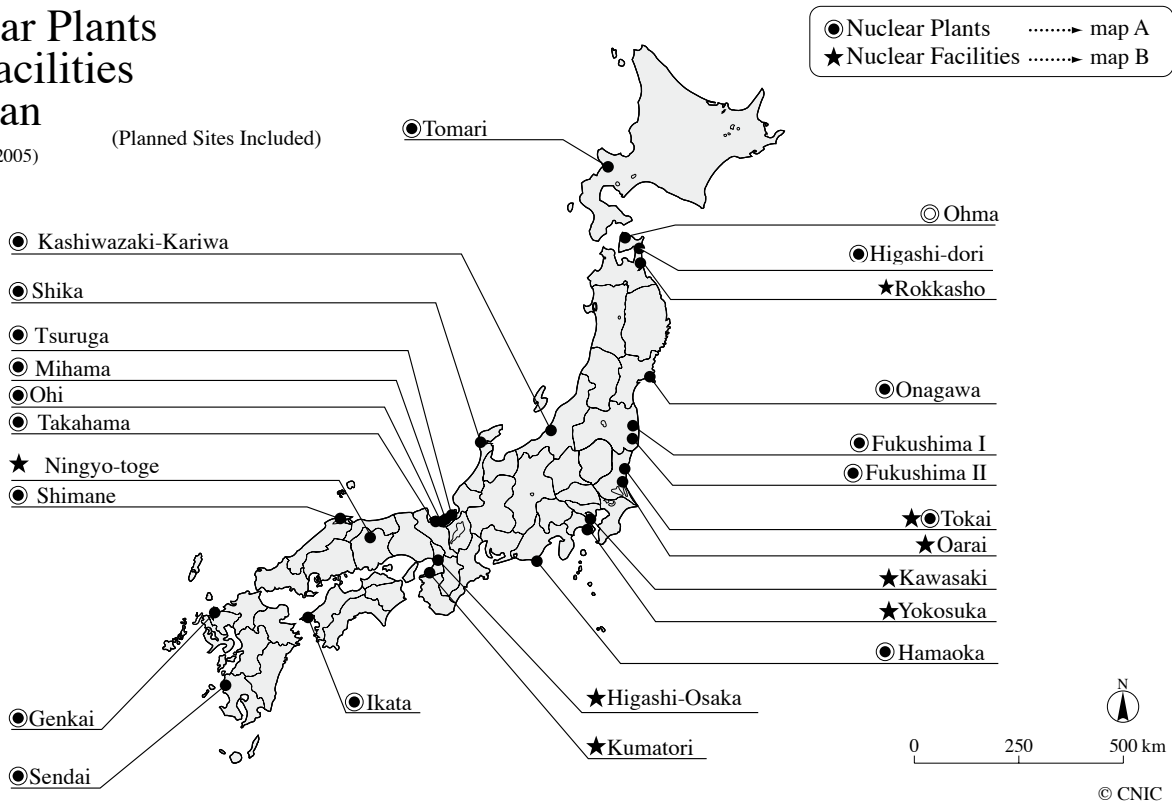
Table 3

Case	Date lodged	Decision date	Status	Claim	Remarks
Kazuyuki Iwasa	1974	1991	Rejected by Supreme Court	Damages for radiation exposure	
JCO criticality accident	2002	Pending	Being considered by Mito District Court	Damages for adverse effect on health	
Mitsuaki Nagao	2004	Pending	Being considered by Tokyo District Court	Damages for radiation exposure	Workers□ compensation claim accepted in 2004 (NIT 99)

Nuclear Plants and Facilities in Japan

(as of Jan. 2005)

(Planned Sites Included)



map A Nuclear Plants in Japan

(as of Jan. 2005)

Type of Reactor: PWR (1—No.) BWR (1) GCR Others

Status:
- Operable 53
- Under construction 3
- Under pre-construction safety review 1
- Permanently shut down / under decommissioning 2
- Shut down 1

Kashiwazaki-Kariwa 1 2 3 4 5 6 7 — Tokyo Electric Power Company

Tomari 1 2 3 — Hokkaido Electric Power Company

Oma 1 — Electric Power Development Company

Tsuruga 1 2 — Japan Atomic Power Company

Fugen (Shut down 29 Mar 2003) — Prototype Advanced Thermal Reactor, Japan Atomic Power Company

Monju — Prototype Fast Breeder Reactor*, Japan Atomic Power Company
*Shut down since the 1995 sodium leak and fire accident.

Shika 1 2 — Hokuriku Electric Power Company

Higashi-dori 1 — Tohoku Electric Power Company

Onagawa 1 2 3 — Tohoku Electric Power Company

Mihama 1 2 3 — Kansai Electric Power Company

Oi 1 2 3 4 — Kansai Electric Power Company

Takahama 1 2 3 4 — Kansai Electric Power Company

Fukushima I 1 2 3 4 5 6 — Tokyo Electric Power Company

Fukushima II 1 2 3 4 — Tokyo Electric Power Company

Ikata 1 2 3 — Shikoku Electric Power Company

Tokai — Japan Atomic Power Company

Tokai II 1 — Japan Atomic Power Company

Shimane 1 2 3 — Chugoku Electric Power Company

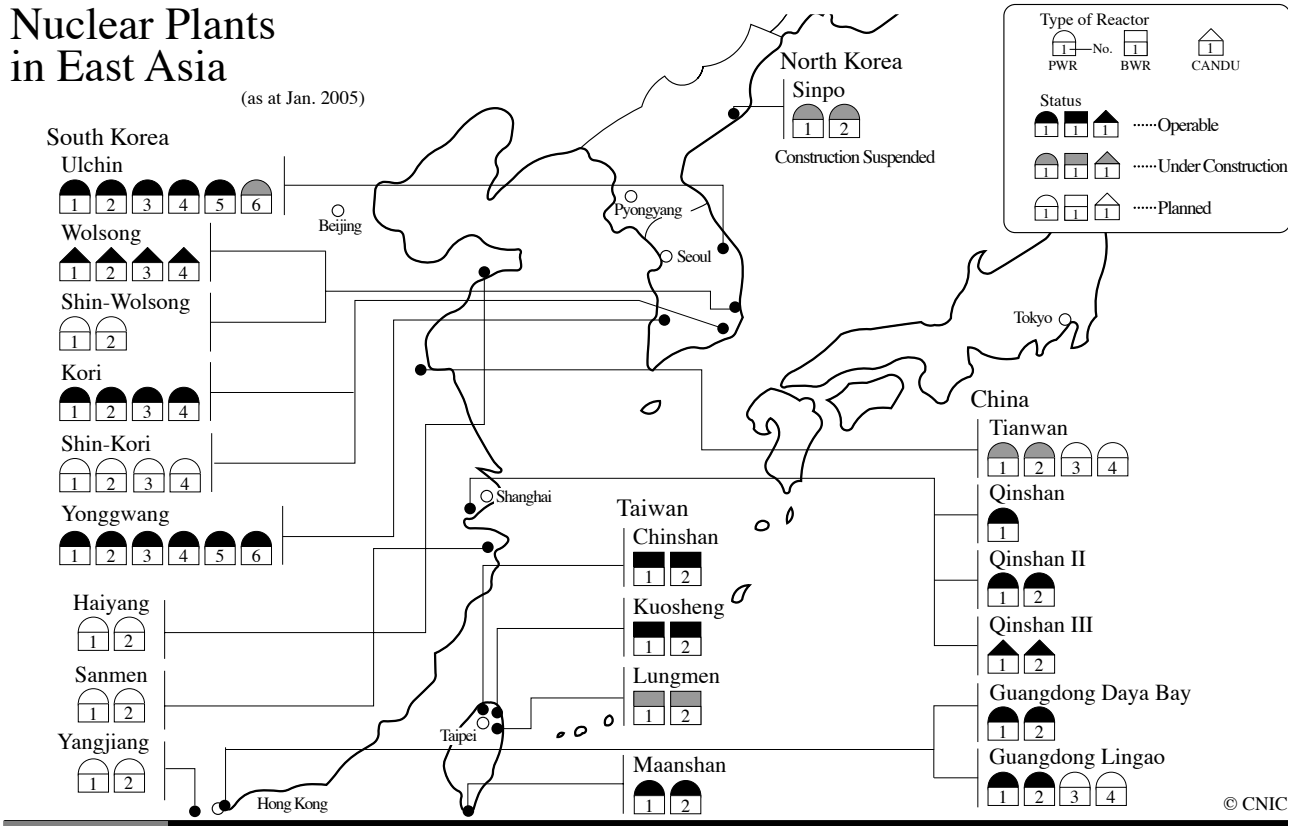
Genkai 1 2 3 4 — Kyushu Electric Power Company

Sendai 1 2 — Kyushu Electric Power Company

Hamaoka 1 2 3 4 5 — Chubu Electric Power Company

Nuclear Plants in East Asia

(as at Jan. 2005)



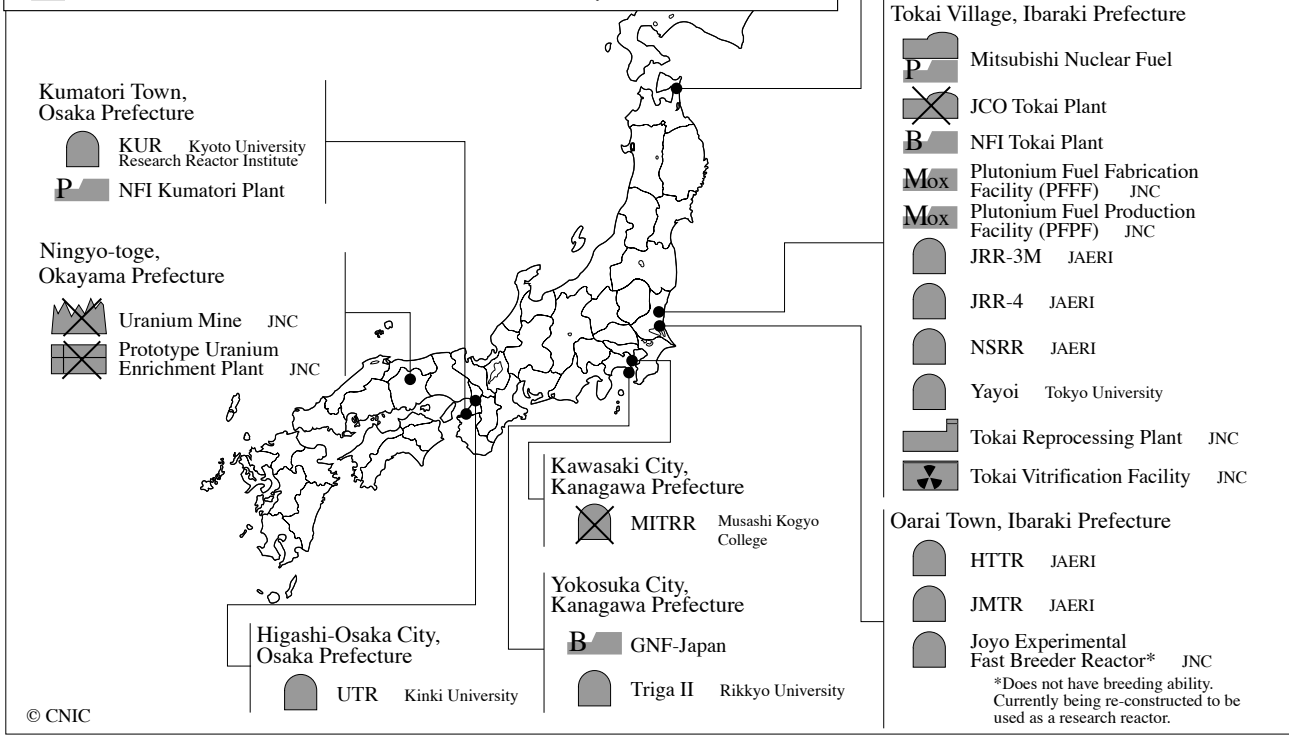
map B Commercial and Research Nuclear Facilities in Japan

(as of Jan. 2005)

Type of Facility
- Research reactor
- Uranium fuel manufacturing plant for BWR
- Uranium fuel manufacturing plant for PWR
- MOX fuel manufacturing plant
- Uranium reconversion
- Uranium enrichment plant
- Reprocessing plant
- Mine
- Others

Status
- Operable
- Under construction
- Permanently shut down

GNF-Japan - Global Nuclear Fuel - Japan
JAERI - Japan Atomic Energy Research Institute
JNC - Japan Nuclear Cycle Development Institute
JNFL - Japan Nuclear Fuel Ltd.
NFI - Nuclear Fuel Industry



Kumatori Town, Osaka Prefecture
- KUR Kyoto University Research Reactor Institute
- P NFI Kumatori Plant

Ningyo-toge, Okayama Prefecture
- Uranium Mine JNC
- Prototype Uranium Enrichment Plant JNC

Higashi-Osaka City, Osaka Prefecture
- UTR Kinki University

Kawasaki City, Kanagawa Prefecture
- MITRR Musashi Kogyo College

Yokosuka City, Kanagawa Prefecture
- B GNF-Japan
- Triga II Rikkyo University

Rokkasho Village, Aomori Prefecture
- Reprocessing Plant JNFL
- Uranium Enrichment Plant JNFL
- Low-level Radioactive Waste Disposal Center JNFL
- High-level Radioactive Waste Storage Center JNFL

Tokai Village, Ibaraki Prefecture
- P Mitsubishi Nuclear Fuel
- JCO Tokai Plant
- B NFI Tokai Plant
- Mox Plutonium Fuel Fabrication Facility (PFFF) JNC
- Mox Plutonium Fuel Production Facility (PFPF) JNC
- JRR-3M JAERI
- JRR-4 JAERI
- NSRR JAERI
- Yayoi Tokyo University
- Tokai Reprocessing Plant JNC
- Tokai Vitrification Facility JNC

Oarai Town, Ibaraki Prefecture
- HTTR JAERI
- JMTR JAERI
- Joyo Experimental Fast Breeder Reactor* JNC

*Does not have breeding ability. Currently being re-constructed to be used as a research reactor.

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Group Introduction:

The Acorn Forestry Club

by Teruyuki Matsushita*

There's an unwritten law which says that if you live near a nuclear power plant, it's hard to do business if you oppose nuclear power. But I don't think it's true. There are people who support nuclear power and there are people who oppose it. Other than people with a vested interest, by and large people who support nuclear power aren't really interested in such issues. It's the people who oppose nuclear power who have opinions of their own. If you provide good merchandise and good service, people will understand. And you can also bring in people from outside the region. With that in mind, we took on the challenge of forestry work.

People tend to think of forestry work as growing and selling timber, typically cedar and cypress, but what we do is a bit different from that. We try to make the most of the bounty that the forest provides. Forests have all sorts of functions. We talk to people about the forest's systems and functions and charge them good money to listen. We also act as forest guides. Vines are hated by most forestry workers, but if we run across an akebi vine while we are conducting a tour, we make a basket or a wreath out of it. When we make flower arrangements using the flowers that bloom all around us, people gasp with delight. We use the mountain plants in our cooking, we make handicrafts with the sticks and leaves and we also made a small campsite. There's an outdoor bath and we collect the water and heat the bath ourselves. For people who know no other way to cook than with gas or electricity, it's a fresh experience to use a wood fire. They find out what the phrase 'smoke gets in your eyes' really means. There's also a barbecue. Our club is a very small system, but in order to help people get in touch with nature, we provide them with inconvenience. That's the basic principle of the Acorn Forestry Club. We even went so far as to draft our own 'management philosophy'. It may sound like an overstatement, but we get excited just reading it.

But the pressure to conform is very strong in rural communities in Japan. If you try to do something a bit different, you get beaten down.

We started to build on our first site. We bought an excavator and got a license to operate it. We prepared the site by the sweat of our brows for half a year. It was fun. When we sat on the excavator, we wondered, "is there any work in the world more enjoyable than this?" But just as we reached the stage where we were ready to begin building our club house, someone found fault with the way we were going about it and came to ask us for a bribe. The old women who owned the land didn't want us to give in. We tried to hold out for their sake, but in the end we had to abandon our original plan. The tears flowed freely when we told them that we were pulling out. We consulted a lawyer and confirmed that there was nothing wrong with what we were doing. Our reason for not proceeding was that we didn't want to cause problems for our guests. On numerous occasions during the heat of summer these old women had brought us ice-creams. They said, "You will introduce this little village to the world. Nothing could make us more happy." It was very painful for us that we couldn't keep our promise.

We looked for another site and got started again at last. Our club moved into the spotlight. We got quite a bit of publicity from the TV and the newspapers and after three years, we started to make money. We are extremely proud of the fact that we took on the challenge of forestry work. Who was it that said, "You can't do business in a nuclear town if you oppose nuclear power"? These days whatever we do is just such fun.

**Teruyuki Matsushita is Planning Coordinator of the Acorn Forestry Club, which is located near the Mihama Power Plant.*

NEWS WATCH

Introduction of a 'Clearance' System

During the next Diet session, beginning in January 2005, a bill to introduce a 'clearance' system will be submitted as an amendment to the Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors. Under this system, radioactive waste with less than a certain concentration of radioactivity would be treated as non-radioactive waste (see NIT 100). In anticipation of this, at a December 2004 meeting of an advisory committee to the Ministry of Economy, Trade and Industry the clearance levels for major radionuclides were changed (see CNIC web site for details). The committee simply applied the standards in IAEA's August 2004 RS-G-1.7 . These standards are stricter than the Nuclear Safety Commission's (NSC) 1999 standards, but of course the fundamental nature of the proposal is unchanged: i.e. some radioactive waste will be 'cleared'.

Revised standards were proposed by NSC in December 2004, immediately before the above advisory committee meeting. These were said to "take into account such things as the Japanese social environment and daily lifestyle", but they were rejected in the interests of 'international consistency'. However questions remain regarding the manner in which they were rejected. NSC carried out a reassessment which took into account the RS-G-1.7 document. It (1) assessed radiation dose to the skin; (2) reappraised dose conversion coefficients based on the latest coefficients proposed by the International Commission on Radiological Protection (ICRP); (3) added pathways for direct oral ingestion; and (4) made an assessment for 1-2 year-old children. With the exception of tritium, the standards proposed by NSC were generally less strict than RS-G-1.7, but we can't accept this free-wheeling globalization of standards, given that the real aim is to promote the international movement of radioactive substances.

Besides 'clearance levels', the following matters are included in the Bill to Amend the Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors, which is being introduced during the next Diet session:

a. introduction of safety regulations in regard to the use of natural radioactivity;
b. strengthening of regulations relating to the protection of nuclear materials;
c. introduction of regulations relating to the dismantling and disposal of nuclear facilities;
d. rules regarding the duty to report accidents and faults;
e. prohibition on the dumping of radioactive waste at sea;
f. raising of penalties.

Of these, the strengthening of regulations relating to the protection of nuclear materials is particularly dangerous.

In addition to the Bill to Amend the Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors, it is also expected that a bill will be introduced for a new law to shift to consumers the costs of dismantling and disposing of the Rokkasho Reprocessing Plant and to make the tax system more favorable to electric power companies. A national conference to oppose these two laws will be held in Tokyo on 6 February 2005.

Supreme court agrees to hear government's Monju appeal

On December 2 the Supreme Court agreed to hear the appeal filed by the Minister for Economy, Trade and Industry (METI) regarding the Monju case. The appeal relates to the Nagoya High Court ruling that the approval to build the reactor was invalid (see article on pages 5-7). Proceedings will commence on March 17. Monju is a Fast Breeder Prototype Reactor (FBR; 280 MW),

built by the Japan Nuclear Cycle Development Institute (JNC) in Tsuruga City, Fukui Prefecture. Trials have been on hold since the sodium leakage accident on 8 December 1995.

The Nagoya High Court's ruling invalidated the government's approval for construction of FBR, and METI, the defendant, filed an appeal with the Supreme Court. Almost two years have passed since METI file the appeal. This petition has now been recognized, but that doesn't mean the defendant has won the case. After hearing the arguments, the Supreme Court will decide either (1) to reject the appeal, (2) to over-rule the High Court decision and make its own decision, or (3) to annul the High Court ruling and return the case to the High Court.

Looking at past cases where the Supreme Court has heard appeals, High Court rulings have often been reversed. Nonetheless, there have also been cases where High Court rulings were upheld. Since this is a very important lawsuit, it is natural that the appeal be heard. This fact alone doesn't help us predict the outcome.

At the *Decommission Monju! National Gathering* held on December 4-5 in Tsuruga City, Fukui Prefecture, Miwako Ogiso, the head of the Office for the Plaintiffs Group, stated that she believes the High Court ruling will surely be upheld, as it was in line with past Supreme Court precedents.

First fuel loading at Higashidori-1

On December 24 the first fuel loading began at Higashidori-1 (BWR, 1,100 MW), which is now being constructed by Tohoku Electric Power Co. in Higashidori Village, Aomori Prefecture. The loading operation took ten days. According to the schedule, it is expected to reach first criticality in January, begin power generation in March and start commercial operation in October this year.

In the past, power companies used to define the 'commencement of trial operations' from the commencement of power generation, but Tohoku Electric announced that it would consider this stage to begin with the commencement of fuel loading.

All six units at Fukushima I stopped

Since December 19 operations have been suspended at all six units of Tokyo Electric Power Company's Fukushima I plant (all BWR, total output 4,696 MW). Unit 1 has been down since 25 October 2002, due to the damage cover-up scandal exposed in August of that year. The Nuclear and Industrial Safety Agency ordered a one year suspension, and since then the Fukushima Prefectural government has refused to give its consent to resume operations. In addition Unit 3 and Unit 5 have been undergoing periodic inspections, Unit 3 since August 2004, and Unit 5 since November 2004.

Units 2, 4 and 6 were stopped one after another when radioactive water leaks were found inside the feed-water heater rooms of Units 2 and 4 on December 8 and inside the reactor containment vessel of Unit 6 on December 17. Water leakage also found on December 15 in the reactor containment vessel of Unit 5, which is undergoing a periodic inspection.

Procedures for reactor shut down during terrorist and armed attacks compiled

On December 3, a *Panel for Discussions on Nuclear Facility Protection Measures in Times of Emergency*, organized by the Nuclear and Industrial Safety Agency and the Cabinet Secretariat, delivered a report outlining their basic ideas on the matter.

The report proposes that when the country is threatened, for example by a terrorist attack, the government would assess the level of threat according to three categories: situations where *Continued on page 4*

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