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Citizens' Nuclear Information Center

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## Court Rules Against Closing Monju Fast Breeder Reactor



Mr. Jinzo Isobe, head of the plaintiffs, is led into the Fukui District Court by other plaintiffs on 22 March.

### Monju and its history

On 22 March, 2000, the verdicts on the civil and the administrative lawsuits concerning the Monju Fast Breeder Prototype Reactor were handed down by the Fukui District Court. The civil lawsuit was fought over the operation of the plant, and the administrative lawsuit concerned the legitimacy of the permission issued for establishing the plant. The court ruled heavily in favor of the arguments made by the defendants, the government and the Japan Nuclear Cycle Development Institute (JNC), by ruling that there was no reason to prevent Monju from resuming operation.

Monju is located on the tip of Tsuruga Peninsula in Fukui Prefecture on the Eastern side of Honshu, the main island. Authorization to establish Monju was given in 1983, and major construction began in October, 1985.

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Monju reached criticality in 1994, but a sodium leak and fire followed soon after, in Dec. 1995. The plant has been shut down since then.

## The two lawsuits

Citizens filed suits against the plant in September 1985. An administrative lawsuit was filed to seek the repeal of the permission given by the government to establish Monju, and a civil lawsuit was filed against PNC (now JNC) to halt the construction and operation of the plant.

In December 1987, two years after the suits were filed, the Fukui District Court separated the two suits and ruled against the latter suit on the grounds that there were no benefits in pursuing an administrative suit when the plaintiffs were pursuing a civil one. The plaintiffs immediately appealed to the Nagoya High Court and in 1989, the High Court ruled that civil lawsuits and administrative lawsuits are different in nature and thus the plaintiffs had the right to pursue the administrative lawsuit.

However, the High Court ruling stipulated that only people living within a 20 km radius of Monju had the right to sue. Unhappy with this ruling, the plaintiffs and the defendant appealed to the Supreme Court. The verdict on this appeal was given in September 1992 and ruled fully in favour of the plaintiffs.

The 1992 verdict confirmed that the administrative suit would be referred back to the Fukui District Court and since then this suit has been under deliberation simultaneously with the civil suit. Former CNIC Director Dr. Jinzaburo Takagi was called as a witness for the plaintiffs to testify concerning the consequences from an accident at a fast breeder reactor in 1993.

The latest verdict on the administrative suit ruled that the court deliberates on the basic design and construction policies of Monju, and since there were no legal shortcomings in the safety review conducted by the Nuclear Safety Commission, there were no illegalities in the

process of granting permission for the establishment of Monju. The court also ruled that the sodium leak and fire in 1995 had no relevance to the legitimacy of the safety review.

The verdict for the civil suit ruled that there are no identifiable risks to the lives and bodies of the plaintiffs during normal operation of the plant. It claimed that safety can be maintained by the various accident countermeasures in place. It also claimed that there are no identifiable risks to the lives and bodies of the plaintiffs even from damages from supposed sodium leakage, because safety will be assured by further safety countermeasures that will be put into place in the future.

These are the very arguments advanced by the government and JNC. Thus, one of the arguments in the verdict relies on safety countermeasures that are not in place yet and have not even gone through safety reviews. Many citizens are of the view that the court made no attempt to determine its own conclusions. Yuichi Kaido, a central lawyer for the cases stated that the court in effect told the world, "We decide what's right, and what's right is what JNC says is right. The Japanese regulatory authorities need not bother to conduct safety reviews."

## The future of Monju

If Monju is to resume operation following this verdict, it would be no sooner than four to five years from now, since a safety review and the construction of a thermometer sheath and other additional installations must first take place. (The faulty design of the thermometer sheath caused the sodium leak and fire in 1995.) However, in 1997, 220,000 signatures were collected in Fukui Prefecture (population 820,000) against the operation of Monju. The court has approved the resumption of the operation, but approval from local residents will never be obtained. The plaintiffs filed an appeal to Nagoya High Court two days after the ruling.

By Hideyuki Ban

# Dubious MOX Quality Control Not Just BNFL

The revelation of the fabrication of quality control data for the pellets of MOX fuel manufactured by British Nuclear Fuel plc (BNFL) has raised serious questions concerning the quality control of the MOX fuel prepared for Tokyo Electric Power Co. (TEPCO) by Belgonuclaire (BN).

On 24 Feb. 2000, TEPCO released a report on the "Results of the Reconfirmation of the Quality Control of the MOX fuel for Fukushima I Unit 3 Reactor and Kashiwazaki-Kariwa Unit 3 Reactor." TEPCO was ordered by the Ministry of International Trade and Industry (MITI) to conduct an investigation following the revelation of the BNFL scandal. This is the second investigation report on BN-made MOX. The first one was conducted in Sept. 1999 when data fabrication by BNFL was first revealed. However, fabrication of data on additional lots of MOX fuel pellets by BNFL was revealed in Dec. 1999, and thus MITI ordered a second investigation.

In the report TEPCO insists that there was no data fabrication because the data for the random inspection is automatically recorded. That is the only evidence given as proof that no data fabrication can take place at BN's MOX plant. However, such a claim does not rule out the possibility of data fabrication. This was proved by none other than BNFL when it was revealed that its employees had lowered the standards of the required three-point measurement of the pellets. Instead of taking measurements from the very top, the middle, and the very bottom, all three measurements were done close to the middle to avoid rejecting pellets that were shaped like "flower pots" instead of cylinders.

In addition, the data is recorded only when an employee presses a pedal. Thus even though the measurement figures are "automatically" recorded once the pedal is pressed, it is possible to avoid pressing the pedal when undesirable figures are

detected. This "automatic" mechanism can therefore be used selectively. Such deviation cannot be ruled out unless the system itself is strictly controlled. A report lacking an investigation into the data recording process itself is hardly convincing.

Furthermore, the numbers of random inspections of pellets do not match. A certain number of random inspections are conducted for each blender (a unit of the mixing process for MOX), so there should be a fixed number of data. However, far more random inspections are conducted than is required, and the numbers of inspections vary from one blender to another. No explanation is given as to why the inspection numbers vary from blender to blender. In addition, the report's histograms of the results of the random inspections on the outer diameters of the pellets show the frequency distribution for the lots of MOX fuel instead of for each blender. One lot consists of a couple of blenders, but the report does not specify exactly how many blenders are in one lot. Also, some lot numbers are missing and thus the lot numbers are not in sequence. TEPCO explains that the missing lot numbers are the lots that were prepared for Germany. However, this explanation does not cast any light on why fuel was prepared for Germany in the middle of manufacturing MOX fuel for Japan; especially when the pellets for Germany are of a different size to those for Japan.

TEPCO has not released any data to answer questions raised by citizens, and thus concerns are intensifying. The company explains that it cannot release data without the approval of BN. However, BN has stated that it is not releasing data because it needs the approval of TEPCO. Citizens' groups have petitioned the Assembly of Fukui Prefecture to have TEPCO release all data on MOX fuel to be used in the prefecture.

By Hideyuki Ban

# Coolant Loss at Mihama 2

At around 10:00 a.m. on 7 April, 2000, Mihama Power Plant Unit 2 Reactor (PWR, 500MW) in Fukui Prefecture, a facility run by Kansai Electric Power Co. (KEPCO), was manually shut down due to a primary coolant leak. In February 1991, there was a serious incident at this same plant in which a tube of a steam generator ruptured.

The leak occurred in the chemical and volume control system. This is the same system where primary coolant was lost in July, 1999 at Tsuruga Unit 2 Reactor of the Japan Atomic Power Co. (see NIT 72 and 73). It is a system which controls the quality of coolant and the concentration of boric acid (which is a neutron absorber). It brings primary coolant in from the reactor in order to rid the coolant of impurities.

The coolant that flows in from the reactor is cooled to 60° C in order to add chemical substances. Then this cooled coolant is warmed up to about 280° C (the temperature of coolant flowing in the reactor), before it is reintroduced into the reactor. Such heat exchange is done with a “regenerative heat exchanger” and a “non-regenerative heat exchanger.” There is a device set between these two generators which controls the pressure and volume of the flow of coolant between the generators (See Figure 1). KEPCO reported on 10 April, 2000 that a crack was found in an L-shaped stainless steel pipe (outer diameter 6cm, 9mm thick) set within this device. The crack was about 20mm long and stretched circumferentially on the surface of the L-shaped pipe close to where the pipe was welded.

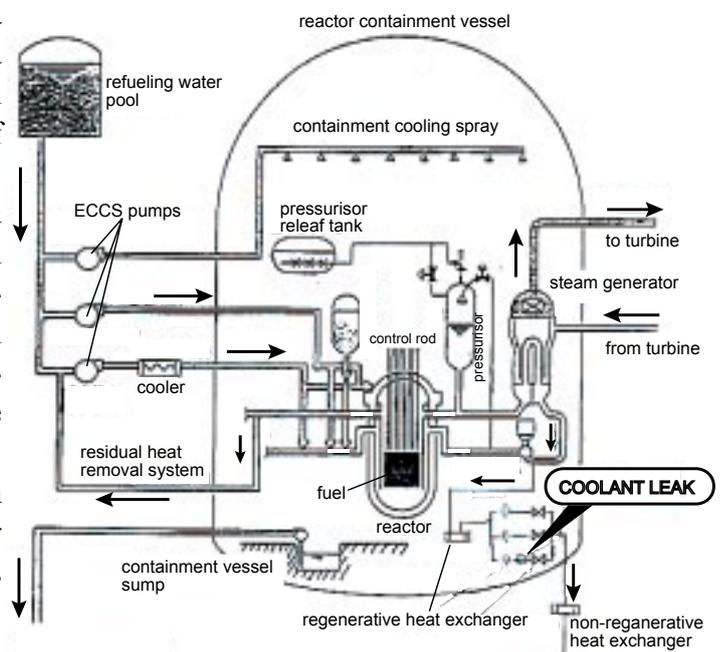
According to reports, it is estimated from the decrease in the water level of the reactor containment vessel sump that about 500 liters of coolant was lost.

Though the cracked pipe was part of the pri-

mary system, it was categorized as a “pipe of the third kind.” The cracked pipe at Tsuruga Unit 2 Reactor connecting the regenerative heat exchanger had also been put into that category. Such pipes are required to be inspected only once in ten years. It was in 1990 that the cracked pipe in Mihama Unit 2 Reactor was last inspected. No detailed inspection was conducted even after the coolant loss last summer at Tsuruga Unit 2 Reactor, because this pipe was 8 meters away from the regenerative heat exchanger.

It is thought that the pipe cracked due to stress corrosion. KEPCO has announced that it will remove the pipe in order to conduct further investigations into the cause of the crack. It will also use supersonic waves to investigate the two other systems within the device. KEPCO would be well advised to conduct a thorough investigation, since such loss of coolant could have been prevented if proper inspections had been carried out following the accident at Tsuruga Unit 2 Reactor.

By Chihiro Kamisawa



# Geological Disposal to Gain Legal Approval

## High-level Waste Disposal Bill

On 14 March, 2000, a bill concerning high-level radioactive waste disposal was tabled in the Diet. The government plans to pass this bill during the current Diet session.

Nuclear power has been criticized until now as a “condominium without a toilet.” It is clear in the bill that its purpose is to “prepare an environment” for further expansion of nuclear power by creating an illusory “toilet” system. This bill is an attempt to deceive the public by creating the impression that a truly effective “toilet” will be created.

The bill defines high-level radioactive waste as “solidified materials resulting from the reprocessing of spent fuel.” In other words, reprocessing is a starting premise in this bill, and direct disposal is left out of the discussion. The government explains that as of September 1998, there were about 12,600 canisters of vitrified waste that must be disposed of, and there will be about 40,000 by 2015. However, these figures are derived from calculations of mostly unprocessed spent fuel. In reality there isn't that much vitrified waste. As of March 2000, most of the canisters of vitrified waste are stored in England and France, where Japanese utilities have their reprocessing done. There are only 230 canisters in Japan.

A bill which has reprocessing as a premise certainly cannot avoid criticism when there is a large surplus of Japanese-owned plutonium. There is no justification for promoting reprocessing.

The bill's definition of “final disposal” prompts further questions. The general concept of geological disposal is that leakage of

radioactive nuclides is prevented by “artificial barriers” where vitrified waste canisters are put into overpacks, and then enclosed in buffer materials. The enveloped waste is then put into geological layers (“natural barriers”), to prevent any harm to the human environment in case radioactive nuclides do leak. However, the definition in the bill extends only to the closure of the disposal site and does not deal with the more significant task of maintaining safety after the site is closed.

The most worrying feature of the bill is that it presents geological disposal as the only option. It has not been proved that radioactive waste can be safely deposited in geological strata (it is physically impossible to prove this, anyway), and there are many uncertainties even from the view point of scholars who are in favor of geological disposal. On the international scene, the option of retrieval has become a prerequisite of schemes for geological disposal, even through this contradicts the original principle of such disposal. This international trend has had no impact on the bill whatsoever.

## Utilities exempt from responsibilities

According to the bill, corporations approved under this law will be in charge of disposal. The Ministry of International Trade and Industry would issue permission for operation, and monitor private companies founded to engage in disposal. Utility companies which hold fundamental responsibility for spent fuel and high-level waste will be exempted from their responsibility merely by paying such private companies to dispose of the material. In addition, such private companies will be free of respon-

sibility once the disposal site is closed. Furthermore, “when the operation becomes difficult due to unexpected problems”, the companies can renounce all responsibility even before the time has come to close disposal sites.

Hiroshi Araki, Tokyo Electric Power Co.’s president at the time, once stated that “since electric companies have been forced by the government to use nuclear power, we expect the government to take care of high-level radioactive waste.” By exempting utilities of their responsibilities, the bill is a direct effort to sustain and expand nuclear power.

### The selection process

The bill also defines the selection process for disposal sites. “Preliminary investigation areas” are selected mainly on paper. Then sites are investigated by boring to choose “areas for close investigation.” Underground installations are built in these areas for further investigation, and the “final disposal facility construction site” is then chosen. The bill states that at each stage of the selection process, opinions must be sought from prefectural and local municipality mayors. However, there is no system for consulting the opinions of residents. It looks like environmental assessments will not be conducted either.

A further serious problem with this bill is that it does not give guidelines for each stage of the selection process; nor is there any provision for the creation of such guidelines. The only requirement is that the selected areas “should

not be expected to undergo any significant change in their geological strata due to natural phenomena such as earthquakes.”

The time-frame for the investigations is not stated either. However, it is obvious that in order to begin construction of the disposal site sometime after 2020, as planned, an extremely insufficient amount of time has been allocated for investigation. Compared with the time allowed for geological disposal, the time allocated for investigation and research is minimal.

### Consumers to pay the burden

As mentioned earlier, the necessary funds will be provided by utilities. In other words, the costs of these works will be covered by raising the price of electricity. It can easily be imagined that, as utilities attempt to soften the blow of such price rises, a large part of the burden will be passed on to future generations. The results of trial calculations released by the MITI show that it would cost about 3 trillion yen for the disposal of 40,000 canisters of vitrified waste, and about 0.14 yen per 1kwh of nuclear-generated electricity. However, these figures are eminently lacking in credibility.

This bill contains many other deceits and errors, and will not be able to limit the burden for future generation. By concealing the scale of the “negative inheritance” that will be left to future generations, the bill actually leads people to underestimate the scale of the problem of radioactive waste disposal.

by Baku Nishio

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# Criticality Accident Victims' Group

## Illness of family members

It all started with people becoming ill. My mother was first. My parents' small car-parts factory is only about 120 m from the JCO conversion plant where the criticality accident occurred. On 30 September, 1999, my parents left home in the neighboring town as usual and started work in their factory at 9 a.m. It was not until 4:30 p.m., about six hours after the accident, that they were evacuated. This was due to the tardy administrative response to the accident, and because the radio disaster communication system was fitted in residents' homes, but not in schools or companies.

For about six hours, from the moment of the accident, my parents and their employees were exposed to radiation. The neutron monitor in the Japan Atomic Energy Research Institute's Naka Lab, located about 2 km from the plant, was registering the high dose of neutrons, and thus all people living within 2 km radius of the plant were exposed to neutrons.

The day after the accident, my mother suffered severe diarrhea. She had usually been constipated, so my father and I knew that something serious was happening in my mother's body. She had no appetite and lost 6 kg in a short time. She also suffered from extreme dullness. Even though the diarrhea lasted for 5 days, she forced herself to work as usual. But then on 7 October she could not get up and had to stay in bed. She is usually neatly dressed, but I learned later on that she had had no energy to change clothes and kept the same clothes on for 15 days.

Her stomach problem started in mid-October. She is not one to complain, and endures as



Local residents being measured for exposure at Funaishikawa Community Center. (Photo by Kenji Higuchi)

much as possible, so she tried to avoid going to the hospital for a long time. But finally on 6 November she went and had her stomach checked. She was told that three ulcers in her stomach were in such a bad condition that bleeding could occur. She was hospitalized right away. She also had bad stomatitis. She spent 20 days in the hospital and then came home, having no more pain in her stomach, but her dull feeling continued.

## The founding of JCO Victims' Group

In the middle of November my father was interviewed on TV about the accident and then people who were suffering from illness started to come to talk to him at his factory. Even though these people went to the consultation office set up by the Science and Technology Agency (STA) in Tokai-mura and told them about their illness, local residents were flatly

told that their illness had nothing to do with the accident. They were told that “it’s only psychological. Don’t worry.” The least advice they were given was to “go to the hospital or your family doctor.” However, for those people actually suffering from skin pain, rushes, stomatitis, sore throat, nausea, diarrhea, sleep disturbances, not to mention those who were pregnant or looking after small children, these responses hardly helped to relieve their anxieties. These people set up the “Criticality Accident Victims’ Group” and urged my father to become a representative. He turned down their request many times, saying he was not a Tokai-mura resident, but finally had to accept it.

Meanwhile, my father and I persuaded my mother to go to a psychiatrist. The diagnosis was “temporary depression prompted by the accident”. My mother was given anti-depressant and sleeping pills, and is still fighting against the sickness.

### Local residents' exposure denied

Yoshinobu Koizumi (Tokyo University Isotope General Center) and Masuchika Kono (Kyoto University Post Graduate Engineering Dept.) checked the neutron dose resulting from the accident by measuring Zinc 65 in 5 yen coins found in houses near JCO. The dose was 220 mSv at 100 meters from the plant and 100 mSv at 120 meters (“METAL” Vol.70). This report also says that “we can’t deny the possibility of the plant workers and nearby residents being exposed to a high-level radioactive cloud containing radioactive gases with very short half-lives.”

However, the Japanese Government and the STA declared that radioactive exposure resulting from the accident was minimal and didn’t affect residents’ health or environment. They also claim that “as for the possibility of delayed effects from radiation (cancer and so on), this is quite minimal.” And as for the residents’ health, “special health examinations to find if

there are any physical effects caused by radiation can’t be considered”. What they are saying is that they have no intention to deal with the health problem caused by radiation from the accident. They only plan to arrange health check-ups once a year in order to deal with “residents’ anxiety about health”.

JCO has the same view as the STA. It does not admit that there are any health problems among residents, and has therefore not arranged for medical compensation except for initial medical examinations immediately after the accident. Newspapers reported that as much as 9 billion yen had been paid in compensation, but this mainly covered the losses suffered by local industry and commerce as a result of “perceived damage” due to the accident. Residents’ health has been ignored. At a meeting held for the residents within the JCO plant recently, a professor from some university showed up and insisted many times in a loud voice; “there will never be any health effects whatsoever. Never!” He also said that no health check-ups are necessary and that the annual examinations arranged by the government are “a favor for you”. We, the residents, became furious, and felt deeply humiliated.

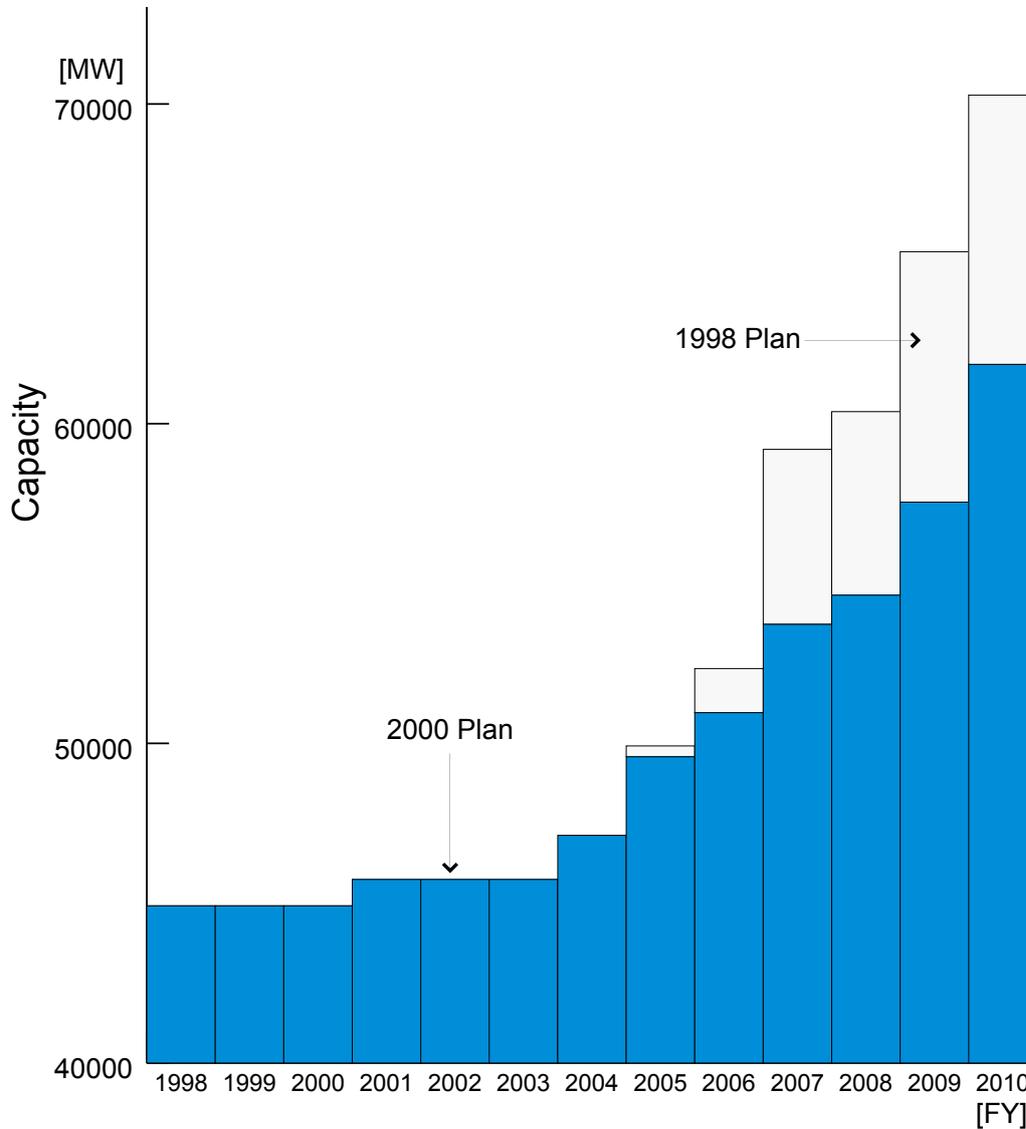
### Message to all

What we are hoping for is compensation for our ill health and for the continuous anxiety about our health for the future. Unfortunately, the Japanese Government and the nuclear industry don’t see the importance of this. As the son of one of the victims of the JCO accident, I very much hope that the authorities’ disregard for citizens’ well-being becomes known around the world, and that people elsewhere will support our campaign for just treatment.

by Mitsunari Oizumi

<p>Correction: NIT 76 p.8 Table of the STA's Estimation on Exposure Dose; exposure of residents near the plant (measured) (F) over 45 - under 50 -&gt; (T) over 15 - under 20, exposure of local residents (estimated) (F) over 45 - under 50 -&gt; (T) over 20 - under 25</p>
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## DATA: Nuclear Power Development Program



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The Japanese Government had been telling the public that as many as 20 nuclear reactors should be built by 2010 in order to realize the promise made at COP3 to reduce greenhouse gases. In March 1998, a year after COP3, the Agency of National Resources and Energy (ANRE) announced that the utility companies planned to build 21 reactors all together with the total capacity of 70,779MW.

Then, two years later, in March 2000, ANRE compiled plans submitted by the utility companies and announced a drastically reduced plan of 13 reactors with 61,850MW. It even stated that one of the reactors would not start operation until “sometime after 2010.” Furthermore, all the plans for the plants to start operation later this decade have been postponed many times, so even this reduced plan is not realistic.

The fundamental reason for the delay is, of course, strong local opposition, but the progress in electric utility liberalization and the recent stagnant electricity demand are also factors.

Anti-Nuke Who's Who**Yasue Ashihara****Tireless leader of hometown campaigns**

By Junji Fukuda

A meeting of the Electric Power Development Coordination Council will be held in the coming July. Nuclear power promoters are pushing hard to realise their plan to build a third reactor at the Shimane Plant, while local residents are squaring off to fight the plan. Yasue Ashihara has been deeply involved in the movement, working as the secretary general of the local campaign against constructing additional reactors as well as representing the 140 plaintiffs in the Shimane Power Plant Unit 1&2 Case.

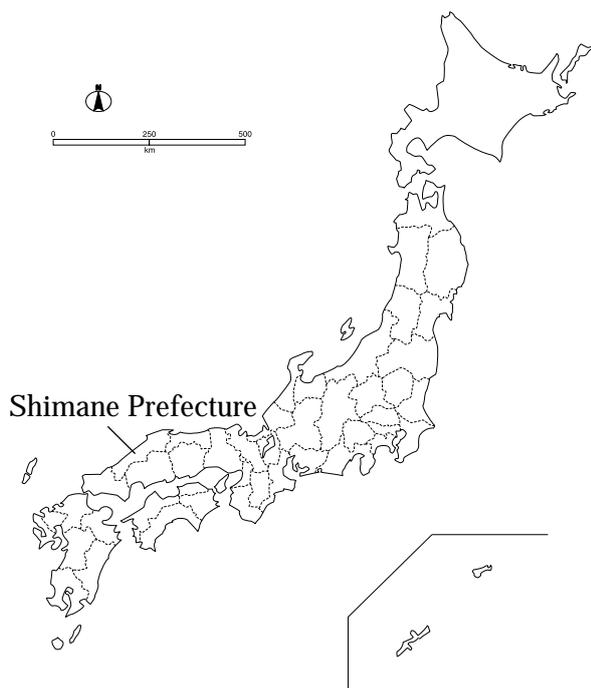
She joined the anti-nuclear movement in the 1970s when the plan to build Shimane Unit 2 Reactor was introduced and was taking practical shape. She began activities by forming the 'No Nuke Matsue Civic Group' with fellows. She says that it was a movement where "people with little kids came together, thinking about



children's future..."

She continues: "Compared with that time, people now see nuclear power generation in very different ways, owing to the accidents at Three Mile Island and Chernobyl. The public opinion is that nuclear power is dangerous and so we should shift from nuclear power to new energy sources such as solar and wind power. By and large, Japan is moving toward a nuclear phase-out. I am convinced that persistent anti-nuclear activities by local residents around the nation led to the current situation."

Ms. Ashihara, a mother of two children, works as a recording secretary at the Shimane office of the Zenkoku Ippan Rodo Kumiai (a national labour union). Being well-versed in labour campaigns, she plays a valuable role as a bridge between residents' campaigns and organisational anti-nuclear movements, which tend to get estranged from each other.



# NEWS WATCH

## **JAIF and VAEC Agreed on the Basic Plan for Cooperation**

On 27 March, 2000, the Japan Atomic Industrial Forum, Inc. (JAIF) and the Vietnam Atomic Energy Commission (VAEC) signed the "Basic Plan 2000" for cooperation in Vietnam's program to introduce nuclear power generation. The Plan is based on "the memorandum of cooperation on preparatory operations for nuclear power generation in Vietnam," to which both parties agreed in December 1999.

The Plan covers the following areas: (1) personnel development, (2) site selection, (3) preparation for legislation, (4) research and development, and (5) publicity. The site selection is planned to be carried out between 2000 and 2003.

## **Commencement of Partial Liberalization of Power Supply Services**

The "partial liberalization" of power supply services started on 21 March 2000. This allows large power users to purchase electricity from power companies outside of supply areas and also from independent power producers (IPPs). Since many of the large users are those who support the nighttime demand, during which general demand falls, if the power companies lose these users, they will have to give up on nuclear reactors which cannot adjust their outputs. Following the introduction of partial lib-

eralization, power companies are becoming very cautious about raising the ratio of nuclear plants.

## **Plu-Thermal Utilization for Kashiwazaki 3 Approved**

On 15 March 2000, the Ministry of International Trade and Industry approved Tokyo Electric Power Co. (TEPCO)'s application for approval to load MOX fuel in Kashiwazaki Unit 3 Reactor (BWR, 1100 MW). The number of MOX fuel assemblies to be loaded into the reactor is said to be 312 at maximum. The total number of fuel assemblies in the core is 764.

The loading of MOX fuel in Kashiwazaki 3 was planned to be carried out in 2000, but it has been postponed for one year in response to the demand of the local prefecture and city, which are gravely concerned about the fabrication of quality control data by British Nuclear Fuels plc (BNFL).

## **Yaku-machi Establishes an Ordinance to Completely Reject Nuclear Facilities**

On 27 March, 2000 the town council of Yaku-machi on Yakushima Island, Kagoshima Prefecture, which is well known for its ancient giant cedars and is designated by UNESCO as a World Natural Heritage, established an ordinance to ban radioactive materials and facilities for the utilization or study of nuclear power. It

was made in opposition to the move to build an intermediate storage facility for spent fuel on Tanegashima Island, which is adjacent to Yakushima.

In March, the councils of Yaku-machi, Kamiyaku-machi (another town in Yakushima), and Nishinoomote City in Tanegashima passed resolutions one after another against the construction plan.

Ordinances refusing to allow radioactive waste to be brought in have been established in Yubara-cho, Okayama Prefecture and Toki City, Gifu Prefecture, but Yakumachi's ordinance is the first one in Japan to refuse any nuclear-related facilities. This ordinance shows people's distrust of Japan's makeshift nuclear policy - the policy of an industry which is manifestly avoiding the problem of what to do with spent fuel.

### **MHI Signs an Agreement to Supply Equipment to KEDO**

Korean Heavy Industries & Construction Co., Ltd., which is in charge of construction of a light water reactor to be supplied by the Korean Peninsula Energy Development Organization (KEDO) to North Korea, signed a contract on March 3 with Mitsubishi Heavy Industries (MHI). Under this contract, MHI will supply equipment for the project, including a pressurizer and fuel storage tanks. Toshiba and Hitachi are also expected to supply some equipment such as turbines.

### **JCO's Operation License Revoked**

On 28 March, 2000, the Science and Technology Agency revoked the operating license given to JCO, the company responsible for the criticality accident in September last year. There have been three cases in which there have been orders to suspend operation for a certain period of time, but this is the first case

in which a license of operation has been revoked.

JCO plans to continue clearance work such as removal of radioactive contamination at facilities and management of radioactive materials; it has obtained a permit to handle nuclear fuel substances only for these purposes.

It is thought that Japan will have to be more dependent on overseas companies for the conversion of uranium hexafluoride to uranium oxide. In Japan only one other company, Mitsubishi Nuclear Fuel Co, carries out uranium conversion for PWR fuel.

### **JCO Accident Costs Parent Company 14.5 Billion Yen**

At a press conference on 8 March 2000, Sumitomo Metal Mining, the parent company of JCO Co., announced that it estimates a loss of ¥14.5 billion as a result of the criticality accident in September 1999.

The loss includes an estimated ¥13 billion in compensation payments to residents and businesses. Other expenses related to the accident are estimated at ¥1.5 billion. As of 5 March 2000, JCO has agreed to compensate in 5,150 cases, about 85% of all requests, according to the company. The total amount for those cases is estimated to stand at about ¥8.57 billion. It is unclear as to how much JCO has paid and how much it has borrowed from Sumitomo Metal Mining.

At the end of last year, JCO paid ¥50,000 to each resident of Tokai village living within 350 meters of the site of the accident, and ¥30,000 each to those who were evacuated because of the accident. These payments were accompanied by a letter asking, in effect, that residents not pursue further compensation claims in exchange for receiving this money. A number of residents refused to accept the money. (See pp.7-8 for related story.)

Translators: Gaia Hoerner, Taeko Miwa, Kumiko Tanaka, Junko Yamaka Proof-reader: Antony Moore Editor: Gaia Hoerner
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