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### Aomori Rejects N-Fuel Cycle!

by Tohru Mikami (Group of 10,000 Plaintiffs for the Lawsuit to Stop N-Fuel Cycle)



Photo by K. Shimada

On December 24, 1992, Aomori residents received their most unwelcome Christmas present ever, approval for construction of the reprocessing plant which will be the key element in the nuclear fuel cycle facilities. The construction of this 'plutonium producing,' 'environmentally hazardous' factory is to start soon, in April.

8 years have now passed since Governor Kitamura consented to the construction of the nuclear fuel cycle facilities in Aomori prefecture, neglecting the concerns of the Aomori people. The decision was made with the overwhelming support of the Liberal Democratic Party (LDP) dominated prefectural government.

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We have been fighting against this project ever since, demanding its complete cancellation. During this time, the Chernobyl disaster occurred in 1986, and the anxiety of the local residents increased still further. The opposition movement expanded dramatically, embracing people such as farmers who had been considered 'stubbornly conservative.' Farmers, union workers, and citizens organized a solidarity front and worked to halt, or at least postpone the plan.

However, after the defeat of the antinuclear candidate in the gubernatorial election at the beginning of 1991, the construction of the facilities proceeded rapidly. The uranium enrichment plant started operation in March 1992, and the Low-Level Radioactive Waste Repository started receiving waste last December. Aomori residents are being forced to cohabit with a nuclear garbage dump.

We have continued our protest activities through legal actions, signature campaigns, and rallies, but still have not succeeded in halting the nuclear fuel cycle project.

However, we have seen the United States, Germany, France and United Kingdom give up their plutonium recycling projects. The world trend clearly demonstrates that the nuclear fuel cycle is not the dream cycle which the nuclear industry has touted it to be but a 'sinister cycle' producing weapons-grade plutonium. energy no longer Nuclear is inexhaustible energy source for the future. It is uneconomical, polluting, and only produces huge amounts of radioactive waste.

In this context, we are confident that nuclear energy has no future and will some day have to be phased out. Though facing the imminent start of construction of the reprocessing plant, we are not discouraged at all.

On March 13, more than 1500 people from across the nation gathered for a Rally in Opposition to the Nuclear Fuel Cycle, Reprocessing and Plutonium Utilization,

organized by a coalition of farmers' union, workers' and citizens' groups. Messages in support of the rally came in from Korea, Philippines, Fiji, Germany and UK, the Pacific Concerns Resource Center and other groups. We would like to convey our gratitude to these groups for their messages, which turned the rally into an international event.

On the following day, a similar rally was held at Rokkasho-mura, the site for the nuclear fuel cycle facilities. While driving around the village in a campaigning car, I was pleased to see older women waving their hands at us. It has become harder and harder for the local villagers to oppose the nuclear facilities since Japan Nuclear Fuel, the company responsible for the project, is getting more involved in their daily lives. But there are still people struggling against it.

In the 1970s, the Japanese government confiscated a large area of land from the villagers, disbursing huge amounts of cash under the auspices of the "Mutsu Ogawara Development Program," which was a dream-like plan to create a city with a population of 300,000 and a petroleum industrial complex in 10 years.



National Petroleum Storage Site, the only facility realized in the Development Program

However, the project collapsed due to the oil shock and most of the vast area (2800 ha) for the complex was abandoned. Those who had sold their land in the belief that they would find employment at the industrial complex were left without any work and had to leave the village or find work elsewhere. These people are called 'Development Refugees.'

Since the land had been abandoned it was easy for the nuclear industry to come in and acquire it without any payment or compensation for the fishermen. Rokkasho-mura has been sacrificed on the altar of Japan' plutonium policy.

The best course is to phase out nuclear power as soon as possible, and do

something about the waste that has already been generated. Nuclear power is not economical, and will continue to pollute the environment. We will never give up our struggle toward this goal. We firmly believe that we can stop this project, because it has lost its rationale both economically and technically.

Actor Ryosuke Maki, who died last year, said, "We should not desert this place because it is not joyful, but work together to make it attractive again." We will continue to work hard not only to oppose the nuclear fuel cycle project, but also to make our hometown a comfortable place where we can live without the need for any nuclear fuel cycle facility.

### North Korea Opts Out of NPT

On March 12, North Korea announced it would pull out of the Nuclear Non-Proliferation Treaty (NPT), denouncing the IAEA's demand for a special inspection of sites suspected of nuclear weapons development. North Korea's withdrawal implies its commitment to developing nuclear weapons, which would cause great anxiety to neighboring countries, especially South Korea, and may induce another nuclear arms race in the Far East region.

It is true that NPT is an unequal treaty which enables nuclear weapons states to control non-nuclear weapons states so that they can retain a monopoly of nuclear arms. Still, the NPT has contributed to controlling the proliferation of nuclear weapons and North Korea's withdrawal would have a devastating impact on the treaty itself.

North Korea joined the NPT in 1985 but did not sign the special inspection agreement until January 1992. Before signing the agreement, North Korea insisted that Japan's plutonium program is a threat to North Korea since Japan is trying to acquire more plutonium than necessary for

peaceful purposes.

The Japanese government has started admitting that it will have too much plutonium and should scale down its supply & demand plan. It has even been quoted as advocating a reduction of the operational capacity of the Rokkasho Reprocessing Plant.

The Japanese plutonium program had not been mentioned in the context of North Korea's decision. However, the prediction by many regional security specialists that the Japanese plutonium policy would give rise to regional instability seems gradually to be coming true.

Japan has so far acquired 2.8 tons of plutonium. North Korea, meanwhile, has no more than a few kilograms. However small the quantity, however, the country is a potential nuclear weapons state. Japan should first halt its plutonium utilization program, including the construction of the Rokkasho Reprocessing Plant, and then demand that North Korea rejoin the NPT.

## Referendum to Decide on Nuclear Plan

by Tohru Nakagawa
(Anti-Nuclear Kinoko Group of Nagoya)

On February 26 an ordinance to carry out a referendum on the proposed construction of a nuclear power plant was passed by the municipal assembly of Nanto, Mie Prefecture. The ordinance stipulates that if the municipal assembly agrees to the construction plan, a referendum must be carried out and the mayor must abide by the result. It is the second municipality in the country to have issued such an ordinance, following Kubokawa, Kochi Prefecture.

It was in 1963, exactly 30 years ago, that Chubu Electric Power Co. originally announced it had chosen Ashihama as a site for the plant. Ashihama is located at the south end of the town on the coast. It was actually Japan's first proposed nuclear power plant site.

While Japan now has 44 reactors in operation at 16 sites, Ashihama, the first proposed site in the country, has remained untouched even though Chubu Electric has managed to obtain 3 million square meters of land. This is mainly due to opposition from the fishermen in Nanto. There have been two phases in the 30-year battle for The first lasted from the Ashihama. proposal in 1963 till the announcement by the governor of Mie that "the nuclear issue should be terminated..." in 1967. During this phase the local anti-nuclear movement grew, and in 1966, when some Diet members (including the future Prime Minister Nakasone) tried to make an on-site their vessel was inspection at sea, surrounded by fishing boats and they were forced to abandon the inspection. As many as 30 fishermen were arrested during this action. The fishermen didn't plan to block the inspection at first, but their anger was aroused when they saw Chubu Electric officials climb on board with the Diet members for the supposedly impartial "inspection." This action helped the public realize how serious and united the fishermen of Nanto were.

In 1978 one Diet member who raised the issue in the Diet criticized Chubu's methods of promoting the plant and revealed that the utility had invited no less than 3,321 people from Kisei town and 6,771 from Nanto to visit Chubu's Hamaoka nuclear power plant. This turned out to be nearly 70% of the eligible voters of each town.

The second phase started in 1984 when Mie Prefectural Government passed a resolution to promote "inspections for the Ashihama nuclear power plant" and appropriated 30 million yen from the budget as a plant-related expense. Chubu this time concentrated their efforts on the village of Kowaura. Kowaura possesses the fishing rights off the Ashihama coast. Opposition had been quite strong in Kowaura for many years, but last year supporters of the plan in the fishermen's union outnumbered opponents for the first time. Since then, the 500 households of Kowaura village have been split down the middle and the controversy has led to open hostility between the two sides. It was in this atmosphere that Nanto's mayoral election took place, last August. There were two candidates, and both of them announced they would support the ordinance to hold a referendum.

The municipal assembly asked one of its members to draw up a model for the

ordinance, which was submitted to the assembly on December 14. The model was then discussed by the assembly and many of the town's 10,000 citizens over the following two months.

The biggest event during this period took place on January 17. The supporters of the ordinance, finding that Chubu was planning to hold a ceremony for the completion of its public relations building in the town center on Jan. 17, planned a public rally for the same day. The rally was expected to attract hundreds of people opposed to the nuclear plan and Chubu ended up cancelling the ceremony.

The rally drew as many as 3,500 of the town's 10,000 residents. They surrounded the empty Chubu public relations building and expressed their anger towards the electric company. This rally was organized by a group of young fishermen not even born when Chubu first announced the plan. Through 30 long years of opposition by the townspeople, Chubu Electric has never abandoned its attempts to promote the plan. They have simply ignored the will of the people, to many of whom this seems a very arrogant attitude.

The struggle has involved a wide range of people - fishermen, young people, women with small children, assembly members, and others, and this forced the assembly to pass the ordinance. 11 members voted for it and 6 voted against. What has been accomplished in Nanto is the autonomy guaranteed by Japan's Constitution. And it has been obtained by direct actions involving many people.

While cities such as Tokyo and Osaka have mushroomed in size, many small towns and villages throughout Japan have suffered population losses as well as the loss of their communal and caring way of life. People in these small towns see depopulation as a threat to their lives and some of them, while perfectly aware of the dangers, are willing to have nuclear power plants as a means of revitalizing their communities.

The task for people opposing the plant

is to find other ways of revitalizing the community without the plant. People in Nanto, and especially young people, are now realizing that it is their job to worry about the future of the town and do something about it. They have learned this through the nuclear struggle. They have also got to know each other well, which is a promising development for the future of the town.

In most communities in Japan the people are far apart from the administrative body and there is very little communication between the two. In Nanto, there is no such gap, and people don't consider the assembly members to be distant from them. Direct action by people has made such an ordinance possible and this kind of direct involvement of the people in politics has given life to the democratic process based on the assembly system.

The national policy of promoting nuclear power has never been discussed thoroughly in the Diet and yet the government has pushed ahead with it without giving the public a chance to think about the issues and make choices. So Nanto's achievement in holding a referendum to say yes or no to nuclear power should send a strong message to the government criticizing its policy on nuclear power. We also believe that it will encourage the people fighting against nuclear power throughout Japan.



## Kansai Electric to Replace Old Generation Steam Generators

January 21 Kansai Electric announced that it would replace the steam generators of all the pressurized water reactors (PWRs) that began operating during the 1970s. The utility had already decided to replace the steam generators in two reactors with high rates of steam generator tube damage, as well as that in another unit (Mihama-2) where a tube ruptured in February 1991, but this January decision means that Kansai Electric will replace all the steam generators in four other reactors of the "old generation," including those with comparatively little damage.

Four other electric utilities have PWRs, and the two of them, Shikoku Electric and Kyushu Electric, each have one reactor that began operating during the 1970s. A decision has been made to replace the steam generator in the one (Genkai 1) owned by Kyushu Electric.

Although steam generator tube damage is being found in all reactors each time regular inspections are conducted, neither the causes nor a sure means of dealing with the problem have been determined. The

utilities have repeatedly gotten around the problem by plugging damaged tubes so they cannot be used, or by continuing to use damaged tubes against their better judgement by inserting an internal tube called a sleeve, an operation which forces workers to undergo high levels of radiation exposure. In the final analysis, there is simply no way of dealing with this problem but to replace the entire steam generator.

Replacing a steam generator costs ¥20-30 billion, which means that reactors with new steam generators will have to lengthen their service life in order to recoup the cost. Since replacement entails breaking the reactor containment and then repairing it, as well as cutting pipes and then reconnecting them, the process creates serious future problems with regard to the soundness of the containment. Furthermore, even a steam generator replacement does not solve the problem of tube damage.

The excised steam generators are to be kept on site in newly built storage buildings, but the problem of final disposal remains. There are also concerns about radiation exposure to the workers.

#### Steam Generators To Be Replaced

Plant	Power Output	Start of Operation	Percentage of Damaged SG Tubes*	Replacement Schedule
Mihama 1	340	Nov. 1970	21.2 ·	1995-96
Mihama 2	500	July 1972	6.9	1994
Mihama 3	826	Dec. 1976	5.3	1996
Takahama 1	826	Nov. 1974	8.4	1995-96
Takahama 2	826	Nov. 1975	59.4	1994
Ohi 1	1175	Mar. 1979	51.4	1994-95
Ohi 2	1175	Dec. 1979	3.6	1996-97
Genkai 1	559	Oct. 1975	34.7	1994

<sup>\*</sup> As of Feb. 1993

### Significant Incidents at Nuclear Plants

(Jan. to Jul. 1992)

Date	Plant	Short Description of Event
	DNG 75-1:	Two workers exposed to plutonium at Chemical Processing
Jan. 9	PNC Tokai	Facility.
Jan. 10	Genkai 1	Damage to steam generator tubes found during inspection.
Jan. 14	Fukushima II-1	Manual shutdown due to problem with power line.
Jan. 16	Ohi 2	Trouble with manual reactor shutdown circuit (found during test operation).
Jan. 21	Ikata 1	Damage to steam generator tubes found during inspection.
Jan. 21	Takahama 1	Rise of coolant radioactivity concentration due to damage to fuel cladding.
Jan. 26	Rokkasho Enrich. Plant	Power failure during power-failure restart test.
Jan. 28	Fukushima I-2	water pump turbine shaft.
Feb. 4	Takahama 1	Reactor scram due to condenser failure.
Feb. 20	Shimane 1	Reactor scram due to "neutron flux high" signal caused by lightning.
Feb. 24	Rokkasho Enrich, Plant	Power failure during power-failure restart test.
Mar. 11	Tokai Repro. Plant	Operation stopped due to hull removal conveyor failure.
Mar. 27	Ohi 1	Damage to steam generator tubes found during inspection.
Apr. 23	Takahama 1	Fuel rod clad damage found during inspection.
Apr. 25	Ohi 2	Steam leak at weld in secondary coolant pipe.
May 8	Ikata 2	Fuel rod clad damage found during inspection.
May 19	Tokai Repro. Plant	Operation stopped due to hull removal conveyor failure.
May 21	Ikata 2	Fuel rod clad damage found during inspection.
May 27	Kashiwazaki- Kariwa 2	Reactor manually stopped due to condenser vacuum break.
Jun. 4	Mihama 3	Damage to steam generator tube found during inspection.
Jun. 17	Rokkasho Enrich. Plant	Operation manually stopped due to trouble with electric circuit.
Jun. 29	Fukushima I-1	
Jul. 7	JRR-3	Reactor scram due to failure of power supply to control rods.
Jul. 13	Fukushima I-6	Automatic stop of feed water pump; reactor manually shut down.
Jul. 26	Fukushima I-6	Automatic stop of feed water pump; reactor manually shut down.
Jul. 30	Mihama 1	Reactor manually stopped due to rise in secondary coolant radioactivity.

#### Anti-Nuke Who's Who



Asako Hama, a painter and mother of 3 children, is enthusiastically working to stop Japanese nuclear exports to Indonesia. During a two and a half year stay in Indonesia, where her husband was working from 1987, she learned of Japanese involvement in the project to construct a nuclear power plant in the Muria peninsula in Java.

"Indonesia is rich in natural energy, and life is bountiful because, for instance, rice crops can be harvested three times a year. I felt it was strange building a nuclear power plant in such a place, especially in Java which is so densely populated," says Asako.

As a first step to informing the Indonesian people, Asako had arranged the Indonesian translation and publication of Taeko Kansha's booklet "Is It Too Late?", which looks at nuclear power plants from a mother's point of view, in Indonesia. She collected donations in Japan and used them to distribute the booklets free.

She organized the 'Muria Anti-Nuclear

Group of Japan' and has been campaigning actively, holding lecture meetings, symposiums, and panel exhibitions, publishing pamphlets and collecting signatures. She has paid visits to the Foreign Ministry, the Japan Export-Import Bank, the Indonesian Embassy, and NEWJEC, a subsidiary of Kansai Electric Power Co.

Indonesia's plan to build a nuclear power plant on the Muria Peninsula has still not been fully approved. However, a feasibility study has been conducted by NEWJEC. NEWJEC has applied to EXIM Bank for the financing of this study but funding is still "under consideration." Asako and her supporters believe that funding should not be provided since it presupposes that the plant will be built and makes the study a harbinger construction. Since Japan's Official Development Assistance (ODA) does not allow funding of nuclear power plants, EXIM Bank should not finance the plant Any export which threatens the either. people of a country should not be supported by the Japanese government.

"This project is being promoted only by BATAN (National Atomic Energy Agency) and Minister for Research and Technology B. J. Habibie on the Indonesian side, and by the nuclear industry on the Japanese side, without any discussion in either the the Japanese national Indonesian or assembly. Another feature common to both countries is the lack of a democratic policy decision making process. We, the tax payers, should take a stronger interest in how our taxes are being used, otherwise we will just be supporting the revival of the nuclear industry in Southeast Asia instead of the industrialized countries where it has lost its market," said Asako, who pledges to continue her struggle to prevent Japanese nuclear exports.

### NEWS WATGE

#### Worker Killed, Two Burned by Steam at Fukushima

On Feb. 22 steam of about 180 degree C gushed out from a ruptured auxiliary boiler pipe at the radwaste treatment building of the Fukushima II nuclear power plant. One worker died and two others were hospitalized with burns. The steam is normally used to boil down liquid radioactive waste as well as to heat buildings.

#### Belgium Likely to Supply Mox Fuel to Japan

La Libre Belgique, a Belgian daily newspaper, recently reported that Japanese negotiating utilities are now Belgonucleaire, a Belgian MOX (mixed oxide of uranium and plutonium) fuel fabricator, to have Japanese plutonium fabricated into MOX in Europe. Belgian company is likely to supply a total 500 tons of MOX fuel to Japan (15 tons as plutonium) at a value of around 24 billion Belgian francs or about 500 billion yen. Plutonium extracted from Japanese spent fuel in France and UK will be used.

In order to implement this plan, according to a follow-up article in the March 3

issue of the Japan Times, Japan and Belgium will have to sign an agreement on cooperation in the peaceful use of nuclear materials, with terms that comply with the provisions of the Convention on the Physical Protection of Nuclear Material. Negotiations between the two countries are now underway but it will still be some time before the MOX fabrication contracts and cooperation agreement are concluded.

A nuclear industry news journal observes that there would be no transport of MOX fuel from Belgium to Japan before 1997 due to Belgonucleaire's limited fabrication capacity.

## Extension of Tsuruga Plant Proposed

On Feb. 25 Japan Atomic Power Company officially proposed to Tsuruga City that it construct two more reactors, units 3 and 4, at the Tsuruga plant site. company plans to build two 1,350 MW APWRs (advanced pressurized water reactors) in addition to the existing unit 1 (357) MW BWR) and unit 2 (1,160 MW PWR). Petitions both for and against construction are likely to be presented to the City Council by local commerce and industry groups and by anti-nuclear citizens. The debate and decision by the City Council will be followed closely. According to a recent opinion poll by a local newspaper, 90% of the citizens are against the construction

plan. Nevertheless, anti-nuclear citizens' groups fear that construction of the reactors will be promoted against the will of citizens.

## France to Return HLW to Japan

COGEMA, the French company that reprocesses Japan's spent nuclear fuel, has asked Japanese power companies to accept radioactive wastes (HLW) high-level produced from reprocessing, in vitrified form, by 1994. A storage facility for vitrified high-level wastes is now under conat Rokkasho-mura, Prefecture, but it will not be completed until February 1995. COGEMA wants to ship the wastes out in December 1994 and deliver them to the facility in February Ishikawajima-Harima Industries, the company undertaking construction of the facility, says February 1995 is the earliest possible date for completion, so the high level radioactive waste transport

ship may have to "drift" for some time on the high seas.

#### Pro-Nuclear Lobby Emerges in SDP

Hirotaka Akamatsu, newly appointed Secretary General of the Social Democratic Party (SDP), made a proposal on February 8 favoring the construction of new nuclear power plants, but later apologized for the proposal due to severe protests from both inside and outside the party. Within the party, however, a pro-nuclear power lobby seems to have emerged and the issue has been raised again and again. Some SDPJ Diet members have formed a study group with LDP Diet members and people from the electric power and nuclear industries to promote plutonium use. This group was approved on February 25 as a corporate body by the Science and Technology Agency and the Ministry of International Trade and Industry.

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