

NUKE INFO TOKYO

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☞ Citizens' Nuclear Information Center

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Nuclear Fuel Facility Election Tooru Hoshi



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The Rokkashomura village mayoral election, crucial to the future of the planned nuclear fuel-cycle facilities, took place on December 10. (See NIT No.14)

Construction of the uranium enrichment plant, the first of the three major facilities, (U. enrichment, LLW disposal and reprocessing plants) is now 80% completed.

The three candidates running for mayor were the former mayor, who had been in office for 16 years, a Mr. Tsuchida, who proposed a temporary freeze on construction of the reprocessing plant and a Mr. Takanashi, who proposes the abandonment of the entire plan.

Mr. Tsuchida, as a member of the village assembly, was initially a strong supporter of the facility, along with the former mayor. When, on Dec. 29, 1988, a meeting of Aomori Prefecture's agricultural cooperative associations passed a resolution opposing construction of the facility, Mr. Tsuchida was one of those who opposed it. He then did an about turn, made an agreement with local opposition groups just before the election, and proposed a temporary freeze. Knowing his past, most people in the anti-nuclear movement were inclined to distrust him, and supported Mr. Takanashi who, as head of the Group to Protect Fishing Grounds from Nuclear Fuel Facilities, had consistently opposed the facility.

Determined to do all I could to halt the facility, I travelled the 700km from Tokyo to help Takanashi and his supporters with their election campaign.

For Tsuchida and the former mayor Furukawa, both conservatives and influential figures within the village, the election was primarily a power struggle. But with Takanashi running, the campaign was focused on a single issue; the nuclear fuel facility. Anti-nuclear people throughout Japan made the election into a big issue by sending supporters to this remote village and inundating all of its 3,000 or so households with letters, telling them about the dangers of the facility and asking them to oppose it. The media picked up the issue and the campaign was reported widely on TV news and in the newspapers. The election was dubbed the "nuclear fuel facility election" and attracted a lot of attention.

In a small village such as Rokkashomura, where there are only 8,300 voters, and a total population of 12,000, pressure from relatives and money under the table still play a major role in elections. Under these conditions Takanashi, who was just an honest fisherman with no particular status in the village,

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Phase-Out Petition to be Submitted

The National Network for the Enactment of a Nuclear Phase Out Law has so far (Dec. '89) collected 2.5 million signatures for its petition. Though this represents only a quarter of the 10 million targeted, it is the largest number of signatures opposing nuclear power to have been collected in Japan.

The signatures will be submitted to the Diet on April 27 with the aim of generating debate on the issue among House members. With the general election for the Lower House expected in February, there would be no point in submitting them before the new composition of the House is decided.

April 27 is the day after the 4th anniversary of the Chernobyl accident, and a big rally and concert commemorating the accident are planned for the following Saturday and Sunday. A simultaneous event is planned by Korean environmental groups and negotiations are underway for each country to send representatives to the other.

However, there is no guarantee that simply submitting the signatures will lead to substantial discussion of the issue in the Diet. Meanwhile, citizens have begun to talk with their local constituency members. Questionnaires on the nuclear issue have been distributed to candidates expected to stand for the general election. And a round-table Diet members' conference on the Nuclear Phase Out Law is to be organized in March.

It is unlikely a Nuclear Phase Out Law will be enacted purely on the strength of this first petition,

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Fukushima II-3 to Restart Despite Safety Concern

The No. 3 reactor of Fukushima II (1,100MW BWR) of Tokyo Electric Power Company (TEPCO), whose recirculation pump was damaged in January, 1989, is to be re-started some time in the summer without regard for the possible dangers involved. As reported earlier (NIT No.10), approximately 30kg. of fragmented metal pieces and powdered metal were found at the bottom of the reactor vessel. A recent investigation shows that some metal pieces have penetrated all the way to the turbines.

TEPCO originally stated that they would resume operation only after all the metal fragments and powder had been removed. But so far they have only managed to recover 12kg. In October, 1989 they announced a new plan to replace all the fuel rods, having found it impossible to recover all the debris. Of an approximate total 770 fuel rods, 210 are waiting to be installed and 290 are to be ordered anew. But, in their eagerness to resume operation as soon as possible, TEPCO intend simply to replace the remaining rods, about 270, with spent fuel rods, stored in a cooling pond within the reactor-compound, instead of ordering new ones.

The spent fuel rods, in which the amount of U-235 has decreased after use, will be used to provide the slightly enriched uranium required to re-start operation. But it will be the first time in Japan that spent fuel rods have been used again, and it is far from certain whether the operation can be properly controlled.

Another worrying factor is that TEPCO has not yet identified the cause of the accident and intends to

resume operation without making any structural modifications.

TEPCO claims the 100kg ring in the pump fell into the reactor because of inadequate welding, and they will modify the welding method. However, the real cause is believed to be the design of the pump itself and there is no guarantee that changing the welding technique will prevent the same kind of accident happening again. If such an accident does occur again, it could have even more serious consequences.

Concerned citizens and activists are trying to keep TEPCO from resuming operation in this way and calling for the troubled reactor to be decommissioned.

Some people have purchased TEPCO stock and become shareholders. They can now demand the necessary data from the company, participate in the shareholders' annual meeting in June, and submit a proposal for the decommissioning of the reactor. □

PHASE OUT PETITION

SUBMITTED

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because there is still not enough anti-nuclear influence within the Diet. But our aim at this stage is to bring the nuclear issue to the Diet and spark off discussion among Diet members. Even if we fail this time, we will continue the petition drive and go on submitting it as many times as it takes to get the Law enacted. □

Nuclear Power Cheapest?

On January 16 the Agency of Natural Resources and Energy (ANRE) announced its calculations for electric generating costs by type of generation, assuming that facilities began operating in 1989. The cost per kilowatt hour was about ¥13 for hydroelectric, about ¥11 for oil-fired plants, and about ¥10 for coal-fired plants. By contrast, said the agency, the cost for nuclear power was about ¥9, making it the cheapest.

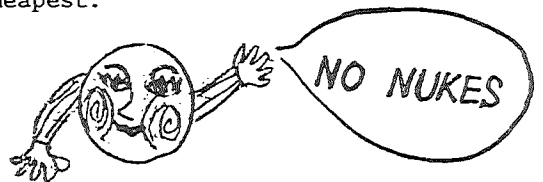
These calculations assume facility service lives of 40 years for hydroelectric, 15 years for thermal, and 16 years for nuclear power. Formerly the agency announced generation costs based on the first year of operation, but recently it has only announced costs based on the service life of facilities (although it will supply first-year generation costs if requested). This stands to reason, for when examined on the basis of first-year generation costs, nuclear power has recently shown itself to be patently higher in cost than fossil fuel power.

Costs based on service life depend on a number of variables such as fuel price trends and fluctuations in the exchange rate, and results tend to be favorable to nuclear power in that arbitrary assumptions can be made. Nuclear power's ¥9/kwh cost does not include nuclear waste disposal costs, but since the ANRE explains that these will probably be about ¥1, the cost will be at least as high as that for coal-fired generation. Thus, no matter how much they manipulate the figures to their own advantage, it is impossible to say that nuclear power is the least expensive.

The cost for nuclear power was said to be ¥9 in both 1988 and 1989, but we are told that in 1989 the cost of dismantling decommissioned reactors has been added. The explanation, however, is that since this comes to about ¥0.2, adding it still results in a generation cost of ¥9. Surely no one can believe the cost of dismantling nuclear plants (about ¥30 billion for one 1,100Mwe plant) can be this low.

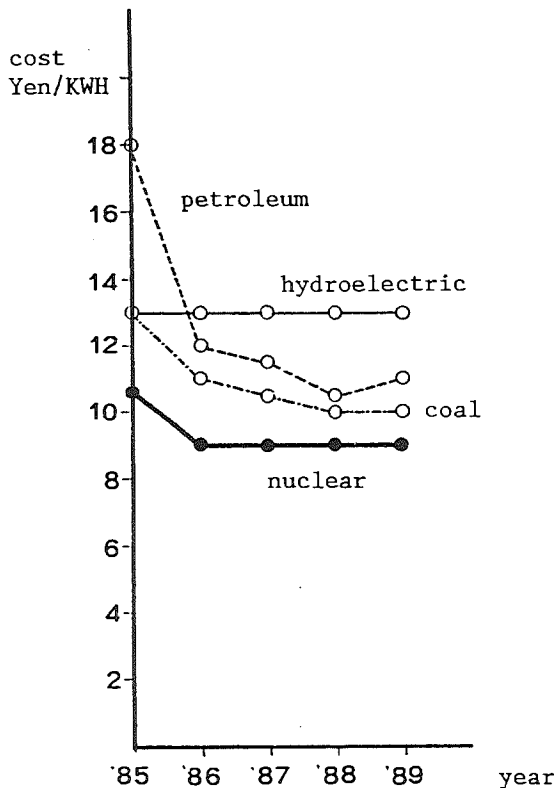
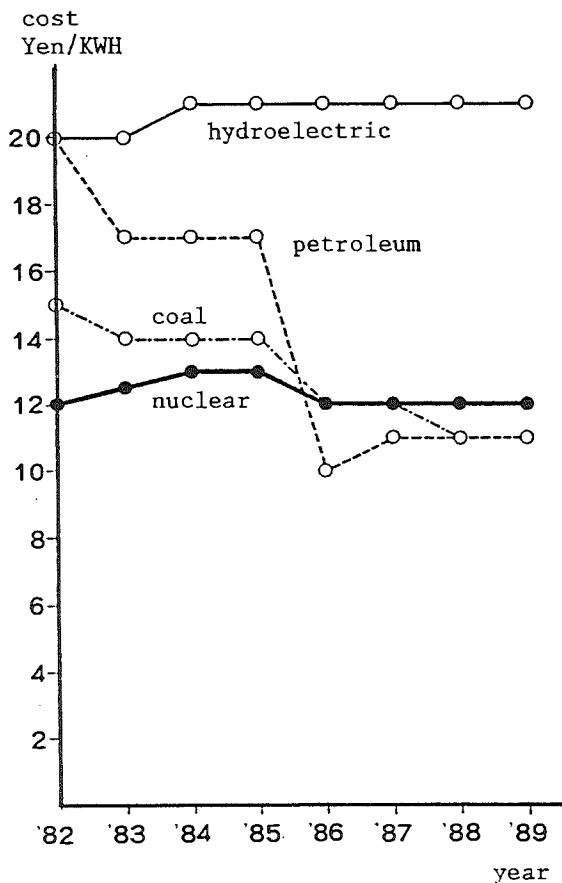
The fact is, the cost of nuclear power can vary drastically depending on how one calculates the costs of even slight increases in safety. Additionally, nuclear power necessitates many "hidden costs." Since nuclear power plants cannot be built near large population centers, where the power is consumed, power must be sent over long distances. And because it is difficult to regulate plant output in response to power demand, electric power companies must build other generating facilities such as pumped-water hydroelectric plants. Furthermore, in the event of a major accident all reactors within the same plant will be shut down, and power supply interrupted (as with Chernobyl), thus requiring reserve generating facilities to cover for such contingencies.

In consideration of such factors, it is quite impossible to say that nuclear power is the cheapest.



FIRST YEAR COSTS

LIFE TIME
AVERAGED COSTS



NUCLEAR FUEL CYCLE

ELECTION

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had no chance of winning, and in the end Tsuchida, who proposed a temporary freeze, was elected.

The result of the election was immediately reported on TV and an interview with the new mayor was carried in major newspapers the next day. Hence the general public now knows of Tsuchida's freeze proposal, which will make it difficult for him

to retract his promise later.

This election was important since it showed clearly that the majority of the villagers were actually against the facility. It also gave the villagers a chance to find out how many people throughout Japan are strongly opposed to it too.

I hope that in the near future the plan will be abandoned for good.

Tooru Hoshi

Dairy Farmers Concerned about Contaminated Feed

Measurements taken by the citizens' radiation monitoring group have revealed imported dried milk used as feed for calves and piglets is contaminated by radiation from the Chernobyl accident. A public meeting on this issue was held on November 25 last year. The 200 participants from all over Japan included not only people involved in consumer and anti-nuclear movements but also dairy farmers and stockbreeders. It was perceived at the meeting that the real issue involves much more than this. The damage caused by the Chernobyl accident is still escalating. An increasing number of deformed baby cattle are being born and various illnesses are appearing in children in Ukraine and Byelorussia. It was pointed out at the meeting that the real problem will not go away until nuclear power is abolished. Dairy farmers and stockbreeders, worrying about the possible health effects of radiation on calves and piglets, are seriously concerned about their current dependency on cheap imported nonfat dried milk. They use imported feed to cut costs and raise productivity but are now looking for ways to lessen their dependence on it.

Press Alternative, one of the participants at the meeting, proposed the establishment of a global network of citizens' groups monitoring radioactive contamination. They believe it would help prevent contaminated nonfat dried milk being distributed in Asia and Africa. This proposal was reported in WISE NEWS COMMUNIQUE (323/324, 22 Dec. 1989).

A couple of weeks after the meeting, participating groups had a

meeting with officials from the Ministry of Agriculture and Fisheries and asked them to release data on contaminated feed. The Ministry later announced that they would release some data, which is shown below. The permissible radiation level for imported feed has been set at 370Bq/kg, the same level as for imported food, and the Ministry is monitoring seven different feeds, including nonfat dried milk, harvested or produced in 27 countries including the USSR and other European countries. □

Nonfat dried milk above 370Bq/kg sent back from Japan

Date	Country	Quantity ton	Radiation level Bq/kg
Mar. 88	England	88	600
Mar. 88	Poland	260	490
Apr. 88	Poland	3.6	1,060
Apr. 88	Poland	294	393
Jan. 89	West Germany	37.9	400

Composition of contaminated nonfat dried milk imported between April and September, 1989

Cs137+134 Bq/kg	number of cases
~ 10	44
~ 50	28
~ 100	16
~ 150	5
~ 200	2
~ 250	3
~ 300	1
> 371	0

(Source: MAF)

Anti-Nuke Who's Who



Sonoko Kitsugawa of Saitama

Sonoko Kitsugawa is a gentle woman, who seems to be full of love. She always wears bright colorful clothes and earrings to show her happiness and love for the world. A freelance illustrator and writer by profession, she became concerned about the dangers of nuclear power after the Chernobyl accident. At that time she was also frustrated with the work she was doing, mainly illustrations for clients. One day in July, 1988, she walked over to the streets of Harajuku, not far from her small apartment. Harajuku is a well-known area of Tokyo with hundreds of small shops oriented towards young people. It is famous for the dance, music, and other performances that take place in the streets on Sundays. So every Sunday Sonoko started to draw and write messages on the pavements to show people the dangers of nuclear power. At first she was a little wound up and felt so strongly about it that the drawings and messages tended to be negative, and so were those of the passers-by who joined her. But as the days went by, Sonoko started to realize that she could draw anything she wanted, and express her feelings freely. Then things really began to happen. More and more

children started to join her and did beautiful work, and people also started to draw more positive images, lovers, dancers, fairies, big birds, imaginary creatures and lovely flowers.

By doing this every Sunday and meeting lots of small kids and people, Sonoko realized that once people got in touch with their innermost feelings and listened to the real voice in their hearts, nobody could possibly agree to having nuclear power on the earth. She then came up with the idea of setting up a network of artists selling their arts and crafts at rallies, bazaars, and open markets. She called it "the seed of happiness shop" and sent off letters to groups and individuals to spread out the idea. The response was much bigger than she expected. Donations were sent as well as a large amount of beautiful art and craft work. Peace, anti-nuke, and ecology groups offered to sell her drawings and paintings. This way she got to know many people and had a chance to talk and share her experiences. She now feels that there is a friendlier and more free-spirited atmosphere throughout Japan and something is definitely happening.

Many people involved in the anti-nuclear power movement are beginning to realize that there is no way to solve the problem without changing society as well as their life-style. People need to learn how to slow down and have enough time to love each other and care for the environment. Sonoko describes it as getting off a runaway train and having lunch in the rice fields.

Recently Sonoko found she could not stand living in a big city any more, and moved to the suburbs of Tokyo. She enjoys being closer to nature, as she tries to find her and other people's inner "wilderness" hidden deep in their hearts. She believes it is this wilderness that makes people respect nature and creates a sane world. Sonoko will continue to sow seeds for happiness on many more street corners. □

Plutonium Issue Still Hot

The Japan Atomic Energy Commission decided on Dec. 12, to transport extracted plutonium back to Japan from Europe by ship. The STA (Science & Technology Agency) and the PNC (Power Reactor and Nuclear Fuel Development Corporation) had originally planned to send it by air. But this caused grave concern among citizens in countries under the proposed flight path. Mounting opposition forced the US government to tighten safety standards for the containers used for the air transport of plutonium (Murkowski Amendment) and the STA and PNC concluded they would not be able to develop such containers by 1992.

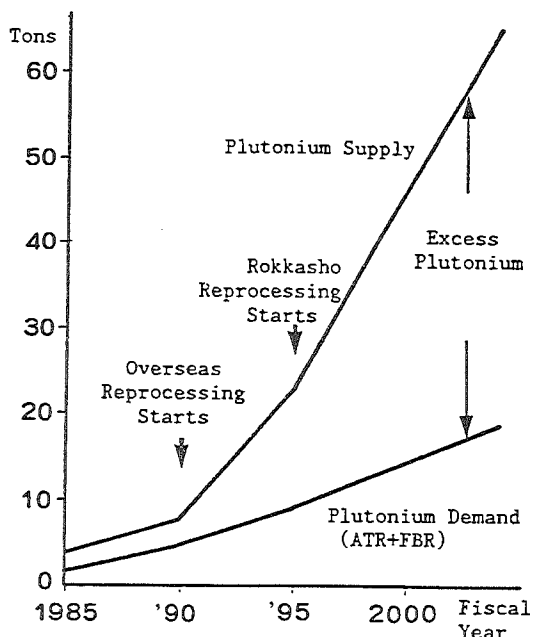
Following the decision, the Japanese government decided Dec. 19 to assign the MSA (Maritime Safety Agency) to escort plutonium shipments, and allocated an initial 8.3 billion yen from the 1989 supplementary budget. The 6,500 ton armed escort vessel, equipped with a surveillance system, is to be completed in April 1992, at a cost of 20 billion yen (\$140 M).

To avoid any controversy over the question of overseas military deployment, the Japanese government has decided not to assign the SDF (Self Defense Force) to guard plutonium shipments. However there are still some voices in the government and the Defense Agency claiming it is a waste of money to build a new vessel while the Maritime Self Defense Force has plenty of warships capable of doing the job. According to one government official who wishes to remain anonymous, a confidential agreement has been reached by the government that if the MSA vessel should ever be considered inadequate to guard plutonium shipments, the situation will be re-examined.

The amount of plutonium returned to Japan is projected to be around 4,000kg a year. The prototype 285 MWe FBR "MONJU", scheduled to start operation in 1992, requires 1,400kg for its initial core and will consume a further 500kg a year. Another 200kg will be consumed by JOYO, an experimental FBR reactor. In addition, a small amount of plutonium is expected to be used as MOX fuel for experimental burning in thermal reactors. Shipments of plutonium from Europe are therefore likely to create a large surplus. Increasing numbers of Japanese people are now going to become aware of the possibility of proliferation posed by this surplus, as well as the danger of the shipments themselves. Close international collaboration is urgently requested to stop all plutonium shipments!

Demand & Supply of Plutonium in Japan

(Estimated by Japan Atomic Industrial Forum)





Hibakusha Support Bill Passed by Upper House

The Hibakusha Support Bill, submitted by the six opposition parties was passed on December 15 by the Upper House, where the opposition parties have been in a majority since elections last June. The bill was then sent to the Lower House where it foundered on Dec. 16 due to the close of the Diet session. It was the first time the bill had been passed by either house.

The bill seeks to clarify the Japanese government's responsibility for the war and to make it a national obligation to compensate atomic bomb victims from Hiroshima and Nagasaki.

Tokyo Univ. Rapped for Slack RI Management

A considerable storm has been raised by revelations that Tokyo University Hospital has been careless in its management of radio isotopes used for research and treatment. The Science & Technology Agency conducted an on-the-spot inspection on November 16, 1989, and issued a 30-item list of guidelines and orders on December 5. It was suspected that the Hospital had used much greater amounts of RIs than permitted, while in some cases there was no record of use, storage or disposal.

According to an investigation conducted by the Mainichi Shimbun in January 1990, radioactive waste may have been buried underground without notice. It was revealed that day laborers had been exploited to transport the waste without any

safety guidance. They worked without film badges or pocket chambers, and received no prior orientation or training, nor were they given a physical examination. Since these acts may have violated the Radiation Hazards Law, the STA summoned the director of the hospital on January 11, and issued him with guidelines for improved management.

Mitsubishi Tries to Sell Reactor to China

According to the January 11 issue of Japan Economy and Industry Newspaper, Mitsubishi Heavy Industries has started to promote its nuclear reactor parts in China and serious negotiations are expected to begin in the middle of this year. Mitsubishi sent several nuclear engineers to China late last year and presented technical details of current and simpler style PWRs.

China's first reactor, Quinshan 1, which it developed independently, and Guangdong 1 & 2, developed jointly by France and UK, are now under construction. Mitsubishi has already exported a pressure vessel for Quinshan 1. The United States is in the lead with sales for Quinshan 2 & 3 and the USSR is believed to have received an order for Liaoning 1 & 2.

Nuclear Industry on the Decline

The Japan Nuclear Industry Forum has released the results of a survey on the nuclear industry in fiscal 1988. Net sales, excluding mutual trade between manufacturers, amounted to 1,269.1 billion yen, 14%

up on 5 years ago. However, reactor parts, representing 58% of total sales, dropped by 9%. This trend is likely to continue as no new orders are expected in the near future. On the other hand service and nuclear fuel cycle sales were up 46% and will probably increase further. The industry is trying to cope with these trends by reducing personnel in the reactor parts sector and expanding the service sector, but this will not be enough to maintain its current level of activity. Thus it seems inevitable that the industry will go into decline.

¥420 Billion Nuclear Power Budget for FY1990

The government has announced its draft budget for fiscal 1990 (Apr.'90-Mar.'91) and an estimated ¥420 billion is allocated to nuclear power. The FY90 nuclear power budget features various new incentive measures to encourage regional authorities to accept nuclear plants and an increased public relations budget, to enable the continued construction of plants in the face of much stronger public opposition. Communities are to be offered subsidies to invite other industries to the area if they accept nuclear plants and to hold fairs for local products in major cities. Thus, the government is bribing local communities to accept nuclear plants by

promoting local development.

The subsidy for the area where the nuclear-fuel cycle facilities are to be sited in Aomori Prefecture is 20% higher. The FY90 budget also gives strong support to the construction of these facilities. A large budget is allocated to establish a Comprehensive Research Institute on Environmental Science which would investigate and study the impact of radioactivity on the environment, and a Reprocessing Technology Research Institute. In addition, the Japan Development Bank's ceiling for financing nuclear facilities has been raised to ¥200 billion, of which ¥45 billion is for the nuclear-fuel cycle facilities.

Funds for Nuclear Research Still Expanding

According to a survey by the Ministry of General Affairs, public and private sector funds for energy research in fiscal 1988 totalled 889.3 billion yen, 50% of which was for nuclear research. Funding for all energy research was up 39% on 1983, and funding for nuclear research up 43%. Funding for fossil fuel and natural energy research was down over the same period. Funding for nuclear fuel cycle research doubled, whereas that for nuclear fusion and nuclear powered ships decreased drastically. 79% of total nuclear research funds was used by the national research institutions.

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