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c/o Citizens' Nuclear Information Center

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Rad-Waste Dumped in Sea of Japan

At the end of March 1993 the Russian government published a shocking report in which it disclosed data on how much radioactive waste Russia has dumped into the ocean since 1959, in disregard of the London Dumping Convention.

The report is titled, "Facts and Problems Related to the Dumping of R-Waste in Russian Territorial Waters." It was commissioned by the President of the Russian Federation on 24 Oct. 1992, and compiled by a team of 46 experts headed by Alexei V. Yablokov, the top environmental adviser to President Yeltsin.

According to the report, the Soviet Union dumped 2.5 million curies of radioactive waste, including both liquid and solid waste, and 18 nuclear reactors from submarines and an ice-breaker. The waste

even included spent nuclear fuel. The total 2.5 million curies of radioactive waste is twice the combined total of waste dumped by 12 other nuclear nations. It was dumped mainly in the Kara Sea in the Arctic Ocean but two reactors and a total of nearly 20,000 curies of liquid and solid waste were dumped off the far east of Russia, causing alarm throughout Japan which relies on the area for marine products.

Not only has Russia dumped radioactive waste, but the report reveals that there was a major runaway accident to a nuclear reactor on board a submarine in Chazhma Bay (Promorskii Region) in 1985. The explosion, and a fire which raged for 4 hours, contaminated the vicinity with burning materials, fission products and unburned fuel in the form of small particles and dust. The area of intense radioactive contamination is concentrated at the site of the accident and the radiation level is 20-40 milli R/h. A maximum 117 milli R/h was still being registered in 1992.

It was also revealed on 14 May that a helicopter carrying 350,000 curies of Strontium 90 crashed in the Sea of Okhotsk east of Sakhalin in 1987. The accident released 19 times as much as had already been dumped in the Far East Region. However, according to the Russian government, there

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is no sign of radioactive contamination in the area.

The Japanese government immediately issued a statement that there was no danger to the Japanese public, but it was clearly alarmed by the report and strongly criticized the Russian government for illegally dumping radioactive waste. The Radioactivity Countermeasures Committee assembled for the first time in 4 years to study the case. The committee, made up of representatives from 11 governmental ministries and agencies, decided to conduct a full survey of the ocean environment from April 18, and to demand that the Russian government supply more detailed information on the dumping. Japan also plans to take up the issue with other world leaders at the G-7 summit in July.

The Japan Sea Coastal Region Promotion Association and the National Federation of Fishery Cooperatives submitted statements to the Science & Technology Agency, Ministry of Agriculture and Fisheries, and other relevant ministries, demanding the complete termination of all dumping. Greenpeace Japan demanded a full survey of the dumping grounds and monitoring of marine products caught in those areas.

Meanwhile, the Japan Federation of Cooperative Associations did its own survey of marine products caught in the Sea of Japan and Bering Sea, but no radioactivity was detected.

The Radioactive Countermeasures Committee organized a team to survey 25 sites, analyzing samples of deep sea water, sea sediments, and marine products including seaweed. The team is made up of experts from the Maritime Safety Agency, the Meteorological Agency, the Fisheries Agency, and the Science & Technology Agency. They began the survey on 18 April, and will release a report on their findings in June. However, the 26 sites surveyed are within Japanese territorial waters, and far from the dumping grounds. The Japanese government has offered to cooperate with Russia in a joint survey of ocean contamination and the effects on marine life at the dumping sites, all of which are within the boundaries of Russian territory. However, the survey is still at the negotiating stage, and there is a long way to go before the full extent of ocean dumping is revealed.

Although it is said that no increase in sea water radioactivity attributable to dumping has yet been recorded, there is no guarantee that this will remain so over the next 10 or 100 years. It is essential that coastal nations organize an international surveillance team to monitor radioactivity levels. And it is equally vital to provide international aid and exert pressure to make the Russian government halt the ocean dumping of radioactive waste. The ocean is already contaminated irrevocably.

Table 1. Radioactive Waste Dumped

		North Sea	Far East	Total
Liquid	(m ³)	190434+?	123497+?	313931+?
	(Ci)	23753	12337	36090
Solid	(m ³)	31534	21876	53410
	(Ci)	15502	6812	22314

Radwaste Dumping Area

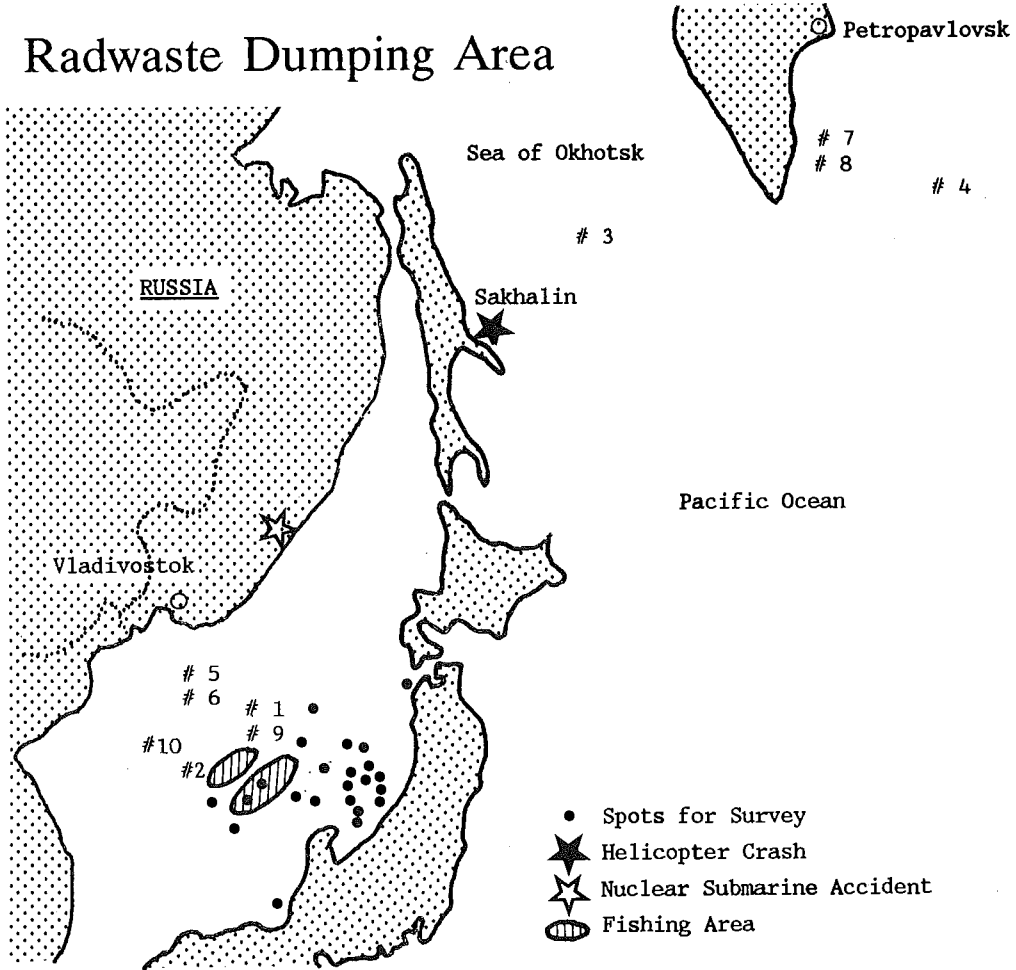


Table 2. Radioactive Waste Dumped in the Far East

Site	Depth (m)	Solid (m ³)	Solid (Ci)	Liquid (m ³)	Liquid (Ci)	Year
# 1	3250-3700	-	0	16250	1.5	?
# 2	2900-3300	-	0	3156	0.9	?
# 3	?	-	0	1513	0.1	?
# 4	?	-	0	4803	0.2	?
# 5	1100-1500	-	0	7836+?	117	67-92
# 6	1900-3300	4409	869	5072	489	68-88
# 7	1400-1500	-	0	34289+?	352	66-92
# 8	2000-2570	2553	2992	-	0	69-92
# 9	3250-3700	9842	2230	32970	10840	74-92
# 10	2900-3300	5072	721	17608	536	78-84
Total		21876	6812	123497+?	12336.7	

MITI's Pro-Plutonium Ad

Due to mounting protests and criticism of Japanese plutonium policy both within Japan and abroad, the government has become increasingly desperate to get general public support for the policy.

It was revealed on April 6 that the Agency of Natural Resources and Energy at the Ministry of International Trade and Industry (MITI) had called on Japan's five major national newspapers to place advertisements on their behalf in the guise of 'editorials' not revealing that they were in fact advertisements paid for by the government. Yomiuri, Sankei, and Mainichi accepted the offer, whereas Asahi and Nikkei (The Economic Journal) refused.

The papers which accepted the offer featured full-page 'articles' between March 27 and 31. These 'articles' presented a completely one-sided view of how 'plutonium is safe and necessary.' They took the form of round-table discussions with a member of the editorial staff as chairperson, and a panel made up of academics and pro-nuclear researchers, with at least one representative of the Agency of Natural Resources and Energy.

These three newspapers and the government have not only violated newspaper advertising standards, which "prohibit carrying advertisements which are not clearly identified as such and which do not clearly identify the organization responsible for the ad," but have in effect contributed to government manipulation of public opinion. This poses a grave threat to the very basis of democracy.

Representatives from several citizens' groups visited MITI and the three newspaper companies on April 8 to submit a declaration of protest. MITI was very unfriendly, and talked to them for only 10 minutes, saying the newspaper companies were to blame for accepting their offers.

Yomiuri said they had written the article in exchange for the advertisement placed below it, and insisted that it was not an advertisement, but an article, and they would receive payment only for the ad below. Sankei said that what they had written was consistent with company policy, and they saw no problem with the article because they had indicated it was an ad with the words 'Feature Article' at the top of the page.

Mainichi had also headed the page 'Feature Story,' which is used internally as a term for advertisement. They said the term has various meanings and they are now discussing the exact definition. They are also discussing whether to publish an apology in the newspaper or not. But to date the 'apology' has not yet appeared in any of their papers. Meanwhile, the Yomiuri ran a small article on the protest visit to their advertisement director, indicating their recognition of such protests.

The Consumers Union of Japan, Greenpeace Japan and CNIC later on visited Japan Advertisement Review Organization, Inc. and filed a claim. The claim will be formally proposed at their business committee meeting.



Help Stop FNPP in Taiwan!

Construction of Taiwan's First Nuclear Power Plant was started in 1971 and it began to generate electricity in 1978. With the completion of the Third Nuclear Power Plant in 1985, Taiwan now has six nuclear reactors, generating about 40% of its total electricity. In 1984 the government-owned Taiwan Power Company proposed to build a Fourth Nuclear Power Plant (FNPP) at Kungliao. However, the budget for FNPP was frozen by the Legislative Yuan (the parliament) in 1985. Since then, the pro-nuclear lobby and the anti-nuclear movement have been in a continuous and heated debate.

These years saw a number of major anti-nuclear events: the founding of a national anti-nuclear organization, the Taiwan Environmental Protection Union (TEPU), in November 1986, the anti-nuclear demonstration by the Yami people, the aborigines of Orchid Island - now a nuclear waste site, in February 1988, a five thousand-strong anti-nuclear demonstration on April 23, 1989, a twenty thousand-strong demo on April 26, 1992, and a twenty three-day anti-nuclear sit-in protest in front of the parliament building by one hundred academics during the FNPP budget review in June, 1992. Unfortunately, in spite of the strong anti-nuclear movement, the FNPP budget was unfrozen by the Legislative Yuan. Bids for the construction of FNPP are now being accepted from international nuclear companies.

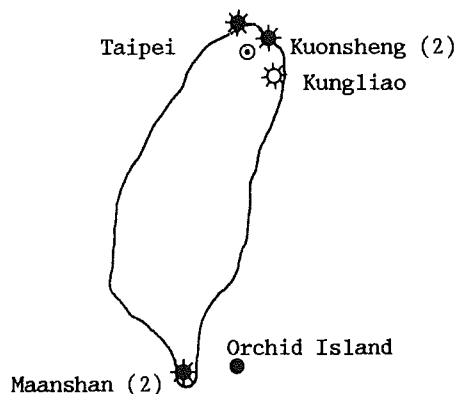
A hopeful sign for the revival of the anti-nuclear movement this year was the electoral success of the opposition Democratic Progressive Party (DPP) which won one-third of the seats in the national legislature last December. The DPP have pledged to freeze the FNPP budget and stop the construction bidding process. The one thousand signature petition delivered to the Yuan on March 26 resulted in a decision to re-examine the FNPP budget this June. The TEPU, with all the other

anti-nuclear organizations in Taiwan, have planned to hold a large-scale anti-nuclear demonstration on May 30 this year to put the necessary pressure on legislators during the budget review. Besides this large-scale demonstration, we have taken several other actions such as lobbying the congress to hold public hearings, and spreading the anti-nuclear word through an underground TV station so as to penetrate the government-controlled TV media.

On April 25, we organized a rally to protest against the Atomic Energy Council for neglecting the radioactive contamination in buildings caused by Cobalt 60 mixed into materials for reinforced concrete. On April 26, a group of fishermen from Kungliao and the representatives of seventy anti-nuclear organizations, brought some fresh seafood to the President's official residence in the hope that President Den-Hwei Lee would personally look into the devastation of natural resources and the beautiful sea shore of Kungliao by the construction of the FNPP. We are also pushing for a public debate on television and a referendum to decide the future of the FNPP. We need international support for our anti-nuclear movement. If you have not yet sent us a supporting letter, please Fax one to 886-2-362-3458 immediately.

Thank you!

Cheng-Yan Kao
Coordinator,
Anti-Nuclear Committee,
TEPU. Chinshan (2)



Nuclear Workers At Risk of Exposure

by Yuichi KAITO

There have been persistent rumors that numerous cancer and leukemia cases have been found among nuclear plant workers. However, they were just rumors with no definite supporting evidence, and the utility companies have always claimed no worker has ever died from exposure to radiation.

The death from leukemia of a nuclear plant maintenance worker is now beginning to reveal some long-hidden truths. Masahide and Michiko Shimahashi, the parents of Nobuyuki Shimahashi who died at the age of 29, have applied for compensation from the state for their son's death, submitting the request to the Iwate Labor Standards Inspection Office in Shizuoka Prefecture.

Nobuyuki worked at the Hamaoka Nuclear Power Plant, operated by Chubu Electric Power Co., for 8 years and 10 months from March, 1981 till December, 1989, conducting check ups of the measuring facilities during the annual inspections. He was actually hired by Kyoritsu Plant Construction Co., a sub-contractor for the Chubu Plant Services Co. which is in charge of the maintenance and inspection of the Hamaoka plant.

According to his radiation control pocketbook, he was exposed to 50.63 millisieverts of radiation.

In October 1989, Nobuyuki was diagnosed as suffering from chronic myelogenous leukemia at the Hamamatsu Medical University Hospital and received treatment as an outpatient. He was then hospitalized on Oct. 22 1990 and received various forms of chemotherapy. But his condition never improved and finally he died on Oct. 20, 1991, with chronic myelogenous leukemia given as the cause of death.

According to a notice issued by the Labor Ministry, the conditions for certifying leukemia as a result of exposure to radia-

tion on the job are; 1) exposure to rather high levels of ionizing radiation (the notice states this should be more than 0.5 Rem x the number of years engaged in work involving exposure to radiation) 2) the disease has to be contracted by the person at least one year after the first exposure to radiation, and 3) it has to be either myelogenous leukemia or lymphatic leukemia. In Nobuyuki Shimahashi's case, the conditions for exposure levels, contraction time, and type of leukemia were all fulfilled.

The Labor Ministry has admitted that it has previously recognized compensation for the death of a former nuclear plant worker due to exposure to radiation. The worker worked for 11 months in 1979 at the No.1 Fukushima Nuclear Power Plant run by Tokyo Electric Power Co. and was exposed to 40 millisieverts. This case was recognized as a death caused by exposure to radiation in 1991, but has never been made public until now.

Besides these two cases, two more applications have already been submitted in Hyogo Prefecture and some more are being prepared for application. Now that the application for Nobuyuki's case has been submitted, the true facts regarding workers' exposure to radiation and health conditions at nuclear power plants are finally coming to light.



Significant Incidents at Nuclear Plants

(Aug. - Dec. 1992)

Date	Plant	Short Description of Event
Aug. 31	Onagawa 1	Reactor scram due to closure of main steam isolation valve (later found to be due to crack in main steam pipe pressure detector).
Sep. 21	Fukushima II-4	Wire found between fuel assembly and fuel support during periodic inspection.
Sep. 26	Tokai-I	Control rod malfunctioned; reactor manually stopped.
Sep. 29	Fukushima I-2	Reactor scram due to failure of all high pressure condensate pump, ECCS actuated by low reactor water level signal.
Oct. 18	Fugen	Reactor manually stopped due to leakage of steam from high pressure turbine pipe.
Oct. 25	Rokkasho Enrich. Plant	Centrifuge automatically stopped due to power voltage drop caused by lightning.
Oct. 30	Mihama 1	Damage to 243 steam generator tubes found during inspection.
Oct. 31	Fukushima II-3	Reactor scram due to drop in reactor water level caused by electric circuit failure.
Nov. 9	Fukushima I-2	Reactor manually stopped during ECCS start-up test due to malfunction of steam line inlet valve for high pressure injection pump.
Nov. 11	Tokai I	Reactor manually stopped due to lowered condenser vacuum.
Nov. 22	Hamaoka 2	Leakage of electricity from condensate pump drive motor; reactor manually stopped on Nov. 26.
Nov. 25	Takahama 2	Damage to 365 steam generator tubes found during inspection.
Dec. 5	Ohi 2	Damage to 286 steam generator tubes found during inspection.
Dec. 16	Tokai I	One of turbine lines manually stopped due to control rod drive mechanism failure.
Dec. 17	KUR	Reactor manually stopped due to control rod drive mechanism failure.
Dec. 18	Metropolitan Isotope Inst.	4 workers exposed to maximum 100 mSv due to erroneous operation of underground cobalt-60 storage cover.
Dec. 18	Kashiwazaki- Kariwa 1	Drop in recirculation pump pressure due to entry of foreign substance into pump mechanical seal.

Anti-Nuke Groups Active Around Japan

Group of Plaintiffs to Stop Takahama 2

Kansai Electric's Takahama 2 reactor is located in Fukui prefecture 100 km north of Osaka on the Japan Sea coast. A pressurized water reactor (PWR) with 3 loops and an output of 830 MW, it started operation in November, 1975.

111 plaintiffs including teenagers and people in their 70s brought a civil action against Kansai Electric in October, 1991 to stop the operation of Takahama 2, claiming the 3 steam generators had badly deteriorated and a tube rupture posed the danger of a core meltdown. If such an accident were to occur, not only the immediate surroundings but the whole of the Kansai area including Osaka and Kyoto would be seriously contaminated by radiation.

The group of plaintiffs is from the whole Kansai area, most of them from Osaka, and includes citizens, farmers, laborers, and students. This demonstrates people's recognition that a nuclear accident would affect everyone, not just local residents. The fears of people in the Kansai area have intensified since the tube rupture accident at the nearby Mihama 2 reactor earlier in 1991.

The steam generator of this reactor was designed by Westinghouse and manufactured by Mitsubishi Heavy Industries, and the tubes are made of Inconel 600. This alloy is known to be prone to cracks from corrosion, and this was the major reason for the shutdown of the Trojan reactor in America. 60% of the 10,000 tubes in Takahama 2 are now either plugged or sleeved, and hundreds of damaged tubes are found during each inspection. Yet Kansai Electric still operates the reactor at full

power.

Kansai Electric has decided to exchange these steam generators beginning January 1994. That means the lawsuit will only be valid until December 1993. Kansai Electric has elected to play for time, by appointing 4 witnesses to discuss general safety issues.

The two witnesses for the plaintiffs have testified on the dangers of a tube rupture and the probability of a core meltdown if a tube rupture should occur. Both witnesses strongly condemned MITI's attitude towards the Mihama 2 tube rupture accident. The lawsuit is seriously questioning the operation of all reactors with old steam generators, not just Takahama 2.

The examination of Kansai Electric's 2 witnesses on this major issue was completed on April 12. The cross examination will take place at the 11th court on May 17. This will represent the climax of the whole lawsuit. The plaintiffs hope to end their examination of the remaining two Kansai Electric witnesses by the end of August, and work towards victory in the final verdict, to be handed down before the end of the year.



NEWS WATCH

Spent Fuel Storage Pool to be Constructed

On April 13 Tokyo Electric Power Co. applied to the Ministry of International Trade and Industry (MITI) for permission to build a new spent fuel storage pool in the grounds of Fukushima I. The station comprises six reactors, the housings of which all contain their own pools, but Tokyo Electric says that owing to the delay in construction of the Rokkasho reprocessing plant the existing pools are at capacity, and it has planned a new shared pool for all six reactors. The plan to build such a shared pool is a first for Japan.

5 New Nuclear Plants Added

Generating plant construction plans released by the electric utilities each April this year contain plans to build five nuclear power plants. This is the first time in seven years that new nuclear power plants have been included in construction plans.

At the same time, however, all existing plans have been postponed for one to three years. These plans have been put off every year, thereby continually widening the gap between actual capacity and the government's long-term forecast of energy supply and demand. It appears that, in order to bring supply more in line with the govern-

ment's forecast, the utilities have rushed into new plans for generating stations that will commence operating before those in the existing plans. The newly planned nuclear power stations are all additions to existing facilities, which makes them easier to build than plants requiring new sites.

Overstaffed Nuclear Divisions

With no promises of orders for new nuclear plants, manufacturers are anguishing over their overstaffed nuclear power divisions. For this reason Hitachi, Ltd. recently decided to transfer about 300 employees, including those at subsidiaries, from its nuclear power division to its thermal power division. Hitachi explained the move as designed not merely to reduce its nuclear power division staff, but also to maintain the level of its employees' technical expertise by having them work on actual construction in the thermal power division.

Mayors in Chiba Alert on N-Fuel Transports

An association of mayors of 30 cities in Chiba Prefecture, decided on April 23 to request the government to inform each city beforehand of any plans to transport nuclear fuel and to assist cities to improve their fire-fighting equipment in preparation

for an accident involving nuclear transport.

Chiba Prefecture is situated between Ibaraki Prefecture and Metropolitan Tokyo. Vehicles transporting fuel on their way from nuclear fuel processing plants in Tokai-mura, Ibaraki Prefecture to nuclear reactors around the country often pass through Kashiwa City and Nagareyama City in Chiba Prefecture. Chiba also lies on the route by which uranium for nuclear fuel arriving at the Tokyo Port from overseas is transported to Tokai-mura.

Unjustifiable Election in Suzu

The city authorities and election administration committee for the recent mayoral election in Suzu City, Ishikawa

Prefecture, stand accused of having jointly rigged the election which hinged on the question of whether to build a nuclear plant. After votes were counted on the day of the election, April 18, it was announced that the incumbent mayor, a nuclear promoter, had been elected with 9,199 votes against the opposition candidate's 8,241. However, fraud was suspected when it was later found that the total number of votes for the two candidates plus invalid votes was 16 more than the total number of ballots cast.

A citizens' protest shelved the decision for two days but the election administration committee then confirmed, without any clarification, that the incumbent mayor had been elected. Some 1,100 citizens on April 30 filed a complaint that the election was invalid.

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