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Waste Disposal Law Created to Assist Nuclear Development

Citizens protest against the disposal law in front of the Upper House building. (photo provided by Women's Democratic Club)

"Specified Radioactive Waste"

On 31 May 2000, a law concerning the disposal of the most dangerous type of waste produced by nuclear power, high-level radioactive waste, passed the Japanese Diet. The law has an extremely vague title, "the Law Concerning the Disposal of Specified Radioactive Waste," which is guaranteed to puzzle the majority of Japanese citizens.

The Japanese government had been promising the establishment of a legal entity for the disposal of radioactive waste by the year 2000, and this was the sole reason why the disposal law was passed during this session of the Diet. The new law is so lacking in substance that it does not deserve to be called a "law." How- ever, the government insisted on passing this act, arguing that Japan is far behind other countries using nuclear power in terms of setting up policies

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and dealing with its radioactive waste.

Contents of the law

To list some of the major points of the law: First of all, it states clearly that it is intended to deal with radioactive waste in order to further assist the growth of the nuclear industry. Second, the waste to be treated under this law is defined as vitrified high-level waste and requires the utilities to pursue reprocessing. Third, vitrified waste will be buried in deep geological strata 300 to 1000 meters under ground. Fourth, a public corporation will be set up to carry out the disposal business. Fifth, costs of disposal will be added to the price of electricity - meaning that costs will be covered by citizens.

The biggest problem among the many raised by this law is the fact that it treats geological disposal as the only option when in fact the safety of this type of disposal has not been technically or scientifically proven. In particular, there has not been sufficient scientific analysis of Japanese environmental conditions, such as the presence of tectonic plates, and the high incidence of seismic and volcanic activity. The law is thus bereft of appropriate safety standards for the selection of disposal sites. The government does not even attempt to hide its intention to leave the matter of safety standards until the last minute, i.e. when it enters the final stage of site selection.

At a time when the nuclear industry is in worldwide decline, this law is an anachronism. It is founded on the desire to promote nuclear energy, and attempts to secure the nuclear fuel cycle through waste disposal policies that will lead to further reprocessing and further production of unnecessary plutonium. There can be no prospect of public consensus on the operation of the geological disposal business when Japanese citizens have been given so little information about the problems of radioactive waste disposal. An open lecture held by CNIC on radioactive waste disposal on 22 June 2000 was attended extremely well and seemed to reflect the growing concern of the public over the final disposal of high-level radioactive waste. The lecture was given by Kevin Kamps (Nuclear Information Resource Service, America) on the situation at Yucca Mountain in Nevada State, which is targeted as a geological disposal site despite a number of scientific uncertainties about both the site and geological disposal technology itself. It was made clear to us afresh that the problem of radioactive waste has no boundaries and that international cooperation is vital for tackling this issue.

By Masako Sawai

SUBSCRIPTION

Nuke Info Tokyo is a bi-monthly newsletter that aims to provide foreign friends with up-to-date information on the Japanese nuclear industry as well as on the movements against it. Please write to us for a subscription (subscription rates: Regular subscriber - $30 or ¥3,000/year; supporting subscriber $50 or ¥5,000/year). The subscription fee should be remitted from a post office to our post office account No. 00160-0-185799, HANGENPATU-NEWS. We would also appreciate receiving information and newsletters from groups abroad in exchange for this newsletter. (When sending the subscription fee from overseas, please send it by international postal money order.)

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Inquiry into the Responsibility of the Former PNC and STA

JCO Accident Assessment Committee Releases Its Interim Report

The JCO Criticality Accident Assessment Committee, organized by CNIC together with the Japan Congress Against A- and H- Bombs and established in Dec. 1999, recently compiled and released an interim report which criticizes the government's safety review of the JCO facility and emphasizes the responsibility of those who commissioned that review. Following is a brief summary of the report.

The amount of uranium nitrate put into the precipitation tank was said to be 16.6 kg, but examination of the contract between JCO and Japan Nuclear Cycle Development Institute (JNC) for the order of the uranium solution, and other documents, indicates that only about 15 kg was supposed to have been manufactured. Clarifying this point is of the utmost importance in relation to the amount that led to criticality, but the most basic of facts such as this are not examined by the Nuclear Safety Commission (NSC)'s investigation at all. The commission finished its accident inquiry in December and has already disbanded, despite not having tracked down the accident's cause.

The main cause of worker's exposure was neutron emissions. On two occasions the government investigation reviewed the workers' exposure assessments, both times lowering their exposure dose. The government's assessment of exposure dose from the accident is grossly under-estimated and will have to be reviewed because the recommendations of the International Commission on Radiological Protection Publication 60, which will be legally adopted in Japan from 2001, assess the impact of neutrons on the human body (quality factor) at double than the quality factor that was used for the current government estimation.

In addition, it has become clear from our survey of local residents that there were many who experienced during the accident, or who are still experiencing, various physical symptoms and illnesses. There needs to be a thorough investigation into the relationship between the accident and these symptoms. An important part of such research would be an investigation into the effects of internal and external exposure from radioactive iodine and rare gases, which have short half-lives.

It was pointed out during the government's safety review of the JCO plant's license application that the precipitation tank was not designed with geometrical control. However, the Science and Technology Agency (STA) avoided dealing with this problem by double-checking the mass control of the tank. Their conclusion was that since the workers would never violate the mass control, criticality was an "impossibility." This clear fault in the reviewing process was never brought up in the NSC's Investigation Committee, but it is obvious that the STA and the NSC, which are in charge of safety reviews, carry grave responsibility for letting the matter slide.

In addition, the NSC's Investigation Committee deliberately avoided pursuing the responsibility of JNC, which placed the order for the particular uranium solution. JNC (formerly PNC) made an order for uranium solution which had a very high concentration of 370 g per liter and demanded procedural specifications for the homogenization process which were difficult for JCO to carry out at its plant. It is written in the contract between JNC and JCO that JCO must provide JNC with the conversion process manual and the conversion process summary (outline) before preparation of the particular uranium solution. Obviously JNC was aware of the illegal procedures that were adopted at the JCO plant. And of course the company was aware from the very beginning that the conversion building of the JCO plant was not installed with sufficient equipment to prepare uranium nitrate solution and was thus unsuitable for preparing high-enriched, high-concentrated uranium solution. The responsibility of JNC is actually the heart of the cause of this accident. Our investigation has gone into depth in this matter. We plan to release the final report of our

Discoveries of Radioactive Scrap Metal Highlight Dangers of "Clearance Level" Plans

investigation this fall. By Hideyuki Ban

Radioactive scrap metal was found in Japan on a number of occasions recently. On 28 April 2000, a radiation detector at the gate of Sumitomo Metal Industries in Wakayama City alerted workers to the presence of radioactive material in a container holding scrap metal imported from the Philippines. The container was opened on 24 May, and a pipe containing the source of radiation was removed. The pipe seemed to be part of a moisture density gauge. Two hundred and thirty MBq of cesium 137 and 1,800 MBq of americium 241-beryllium were detected.

Shortly after that, on 9 May, radiation was detected from scrap metal passing through the gate of the Kobe Steel plant in Kakogawa city, Hyogo Prefecture. The scrap was returned to the scrap-iron dealer. Staff of the Japan Radioisotope Association opened a lead container recovered from the returned scrap metal, and found four cylindrical containers with radium 226 for medical use. It is highly probable that the scrap was disposed of in this way with full knowledge that it is illegal, since the warning label on the lead container had been concealed with adhesive tape.

Incidents in which radioactivity has been traced to scrap metal or discarded medical materials have become common. In recent years there have been a number of incidents in Egypt, Thailand, Taiwan, Spain, and in many more countries. Following such incidents overseas, the Japanese steel industry began setting up radiation detectors at the gates of factories. In contrast, the Science and Technology Agency only began to prepare a manual for treating scrap metal after the two recent incidents in Japan.

Possible improvements in inspection standards at steelworks following the two incidents may well have enabled two recent discoveries. A fragment of depleted uranium was found in a pile of scrap metal at a steelworks in Tamano-city, Okayama Prefecture on 19 June 2000, and two days later, radiation was detected from scrap metal at the gate of a steelworks in Kurashiki city, Okayama Prefecture. The transport routes and the origins of the contaminated materials in Kobe, Wakayama, and Okayama must be carefully investigated in order to prevent any further intrusion of radioactive materials into the public domain.

In early June, envelopes containing monazite (thorium ore) were sent to ten governmental agencies. The letters included in the envelopes gave information on a certain foundation, and from further investigation it was found that the director of this foundation had secretly stored 40 tons of monazite in Saitama, Nagano, and other prefectures across Japan. Only 17 tons of the stored monazite have so far been discovered. The Science and Technology Agency has known of the secret cache of monazite since last November, but did not respond to the matter in any way. This raises the possibility that there are many other places in which radioactive materials are being stored without public knowledge.

Nor can we afford to ignore the debate within the Nuclear Safety Commission's Radioactive Waste Safety Standards Special Committee about the concept of "clearance level." (See NIT 69, "News Watch" and NIT 76, "Decommissioning".) The assumption underlying the idea of "clearance level" is that radioactivity from the huge quantities of scrap metal produced by decommissioning nuclear power plants is of a sufficiently low level to allow such scrap to enter the public domain. However, the recent discoveries of radioactive materials in public spaces show that the concept of "clearance level," if legalized, would only increase citizens' vulnerability to unknown sources of radioactivity. Radioactive materials are already creeping into the public domain far too often; introduction of the "clearance level" would ensure that there were many more such incidents.

By Satoshi Fujino

Renewable Energy in Japan: No.1 Solar Energy

Why renewable energy?

Japan is a highly industrialized country. It is an island nation blessed by nature, its national life clearly demarcated by the four seasons of the year. Conservation of energy is the most important consideration when planning how best to achieve a sustainable future for the country. Surely, we need to take maximum advantage of our natural endowments as we contemplate the use of renewable sources of energy.

In light of the Monju accident in 1995 and the JCO accident at Tokaimura in 1999, not only citizens but the Government as well have started to recognize that further dependence on nuclear power will be difficult. At the end of 1999, the Comprehensive New-Energy Subcommittee was established within the Advisory Committee for Energy of the Ministry of International Trade and Industry (MITI). Members discussed the impact of solar power and wind power when introduced into power generation facilities. In addition, the Comprehensive Energy Review Synthesis Subcommittee was appointed in April by MITI after an interval of ten years to draw up Japan's future energy plan. Some members of the committee are opposed to nuclear power.

Actions of this sort are signs of a change in the country's energy policy. This series will provide the reader with latest information available on renewable energy sources in Japan. Solar energy will be taken up in this issue. Subsequent reports will deal with wind, hydro, and other energy sources such as biomass.

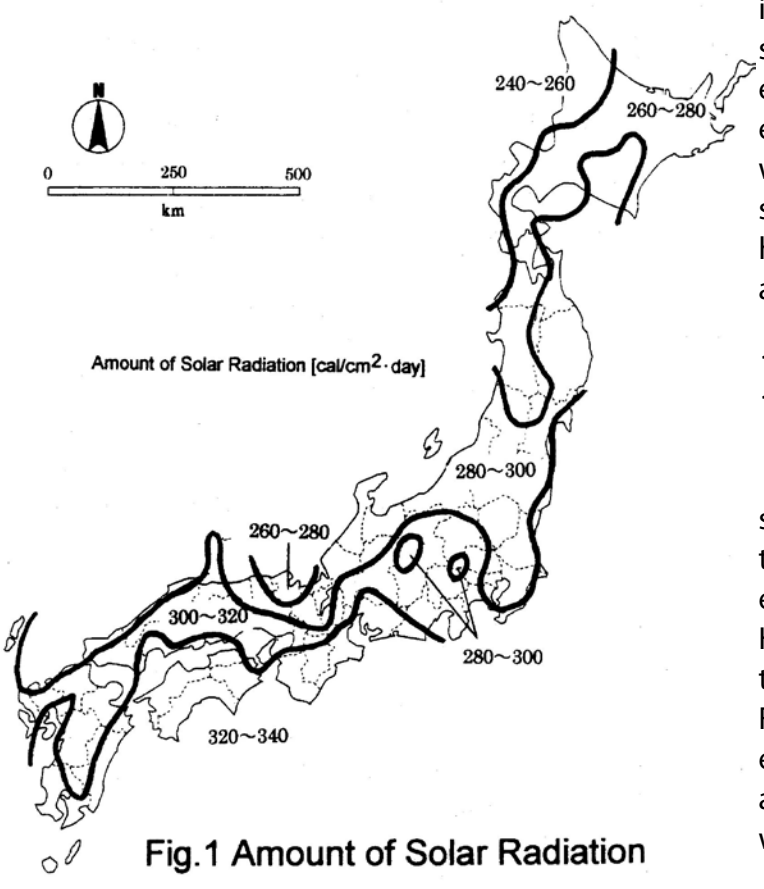

Fig.1 Amount of Solar Radiation

(Data source: The New Energy Foundation)

1. Photovoltaic power

1.1 Efforts by the Government.

Figure 1 illustrates the amount of solar radiation in Japan. You can see that the country is rich in solar energy, especially on the Pacific Ocean side. However, the Government's effort to tap solar energy started rather late. Following the world oil crisis in the early 1970s, The MITI initiated research and development efforts by creating what was called the Sunshine Project in 1974. In this Project, technical ques-

tions such as how to improve efficiency and so on were examined. Although considerable money and time were spent on the Project, problems, such as what the impact might be when electricity generated by renewable energy is transmitted into an existing power grid, were given little consideration. Delays also occurred because of the Government's reluctance to adjust laws related to renewable energy. For example, until 1990, the Electricity Utility Industry Law stipulated that a household photovoltaic power system could only be installed by senior electrical engineers and after a complicated legal procedure. In other words, the same regulations that applied to thermal power generation also applied to photovoltaic power systems placed on house roofs!

In 1995 the Law was at last revised as complicated regulations were relaxed or eliminated. Accordingly, the number of photovoltaic power generation systems increased. For example, electrical energy output of 39 MW (MW = 10^6W) in 1995 increased to 130 MW in 1998 (Fig.2). This output exceeded the American figure of 100 MW for 1998. In the Long-Term Energy Supply and Demand Outlook announced in 1998, the Government estimated a total electrical energy output of 5000 MW to be achieved from solar power by the year 2010. Though the validity of official Supply and Demand Outlook is questionable, according to an estimate done by the Comprehensive New-Energy Subcommittee, the potential of photovoltaic power capacity is over 0.17 TW (TW = 10^{12}W) when systems are set up on roofs of all households and public facilities in Japan. Even if only half of all potential rooftops are equipped in such a way, the output will be over 0.08 TW. As so far presented, though Japan is richly endowed with solar energy, the use of this energy source has been delayed owing to the negative attitude of the Government and the delay in adapting the laws.

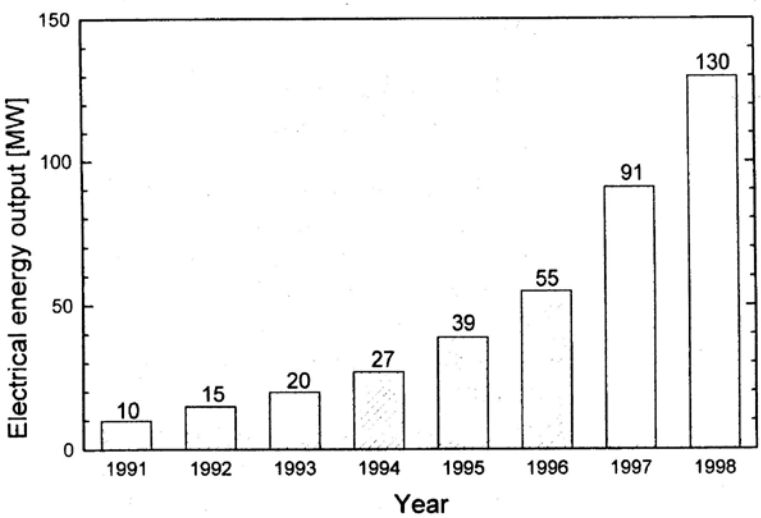

Fig.2 Introduction of photovoltaic power system
(Data source : The New Energy Foundation)

1.2 Efforts by citizens

At present, the capacity for general photovoltaic power generation systems for households is about 4 kW. The systems can meet annual electrical needs for households (average annual electricity consumption for household is about 4 MWh), but the price for such systems is about 4 million yen ($0.4 mil.) including construction expenses (based on 1998 figures). The price of a 3 kW system has been lowered to about 3 million yen; a cost that is still quite high and a heavy burden for most households. For example, a price in that range is equal to the cost of an luxury automobile.

For that reason, the national Government and some foundations established a subsidy system in 1994 to cover a maximum of about half of total installation costs. Many people applied for the subsidy, of course. Contrary to the Government's negative attitude towards solar energy, many house-owners wanted to use solar energy. Because of the still heavy financial burden, people have found creative ways to install photovoltaic power generation. For instance, a citizens' group was able to set up a system on the roof of a temple after raising the needed funds from donations by many ordinary citi-

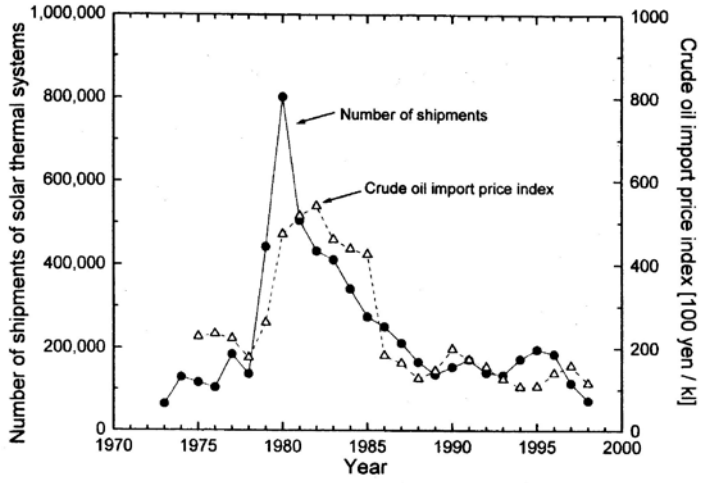

Fig.3 Solar thermal system shipments and crude oil prices
(Data source : New-Energy Subcommittee of the Comprehensive Energy Review Committee)

zens. The solar system was named "The Citizens' Solar Power Plant". Local governments are very active and some have even added 0.3 million yen ($ 3,000) to the subsidy already provided by the national Government. Some local governments are planning to set up solar power systems in all public facilities such as schools. One way to reduce the cost of installing a solar system is to use solar panels as roof tiles. New houses with photovoltaic power generation systems are now selling well.

However, the Government has decided to abolish the subsidy system in 2002. Many people are worried that the expansion of solar systems will decline as a result. The reason why many households prefer to introduce a solar system in spite of high costs is that they have recognized that they can generate their own electricity without huge power generation systems operated by electric power companies. Moreover, as Japanese have traditionally used sunlight for heating and other purposes in their homes they are comfortable in using the nation's abundant sunlight as a rich source of energy.

2. Solar thermal utilization

Let's briefly examine the use of solar thermal power. In contrast to photovoltaic power generation, the use of solar thermal power started with the first oil crisis in 1973. Its use increased rapidly after the second oil crisis in 1979. One reason for the popularity of solar systems was the low price of solar thermal water heaters, which at current rates is about 0.3 million yen ($ 3,000). As solar thermal power is used for hot-water-supply and heating, the market for solar energy is affected by oil prices. Therefore, when oil prices are low and stable, the demand for thermal power levels off. Although real supply of solar thermal energy was 913 Ml (oil equivalent) in 1998, the Outlook statement by the Government predicts 4500 Ml in the year 2010. Yet, the potential for solar thermal energy is estimated by the Government to be 32 Gl (Gl = 10^9l) when used in all public facilities and in the areas of agriculture, stockbreeding, and fishery. In the future, it will be important to develop new industrial systems and new ways of applying solar thermal energy such as a passive solar house system.

Conclusion

Data on solar energy is summarized in Table I. According to the Government, photovoltaic power generation is more expensive than nuclear power. But, utilizing solar energy means using sun-light which is converted normally to useless thermal energy. It cannot simply be compared with nuclear energy, which has received massive subsidies, carries risks of serious economical damage from accidents, and has severe problems with the costs for storage and disposal of radioactive waste.

By Tadahiro Katsuta

	Photovoltaic	Solar thermal
Total energy production	130 MW (1998) 5000 MW (2010)	913 Ml (1998) 4500 Ml (2010)
Potential	0.17 TW	32 Gl
Set up cost	4 million yen	0.3 million yen
Character	low efficiency in electricity generation (10~15%)	high thermal transform efficiency (about 50%)

Table 1 Data on Solar Power in Japan

(Data source: New-Energy Subcommittee of the Comprehensive Energy Review Committee)

DATA: Significant Incidents at Nuclear Facilities (1999)

Date	Facility	Short Description of Event
Jan. 19	Fukushima II	Fire at incinerator air drier-heater in the Wastes Incineration Facility.
Jan. 20	Genkai-3	Radiation leak from fuel rod found during periodic inspection.
Jan. 29	Genkai-1	Reactor manually shut down due to coolant leak from primary coolant pump.
Jan. 29	Ohi-2	Control rod cluster malfunction due to failure of control rod drive mechanisms during test operation.
Feb. 18	Ikata-2	72 steam generator tubes found damaged during periodic inspection.
Mar. 15	Ohi-1	Fuel assembly grid found deformed during periodic inspection.
Mar. 31	Kashiwazaki-Kariwa-7	Reactor manually shut down due to radioactive leakage from fuel rod. Crack found on fuel cladding surface during inspection.
Apr. 2	Fukushima II-1	Generator power fell due to condenser vacuum break during cleaning operation of periodic inspection.
Apr. 7	Fugen	Abnormal pressure at shielding coolant detected due to damage to recirculation pump of main shaft during periodic inspection.
Apr. 9	Monju	Worker's finger cut off near entrance of fuel storage facility coolant piping room.
Apr. 26	Tokai II	Cracks found in 13 control rods' guide-rollers during periodic inspection.
Apr. 30	Mihama-2	Reactor manually shut down due to primary coolant leakage from excess water drainpiping.
May 25	Kashiwazaki-Kariwa-6	Reactor automatically shut down due to generator trip caused by misoperation when switching electricity supply in preparation for inspection.
May 26	Mihama-3	Main steam piping vibration-proof system damaged due to water-hammer phenomenon in primary coolant draining operation during periodic inspection.
May 27	Takahama-4	Four steam generator tubes found damaged during periodic inspection.
Jun. 3	Onagawa-1	Reactor manually shut down due to drain increase from recirculation pump.

Date	Facility	Short Description of Event
Jun. 11	Tokai II	Crack found in neutron flux monitor housings during periodic inspection.
Jun. 14	Shika-1	Crack found in engine shaft of emergency diesel generator.
Jul. 5	Takahama-4	Reactor manually shut down due to primary coolant leak from neutron flux monitor housing.
Jul. 12	Tsuruga-2	Reactor manually shut down due to huge amount of primary coolant leak from regenerative heat exchanger connecting pipe; about 50 tons of primary coolant leak estimated.
Jul. 18	Genkai-1	Damage to condenser tube found during periodic inspection.
Jul. 28	Kashiwazaki-Kariwa-7	Reactor manually shutdown due to internal recirculation pump trip.
Aug. 4	Takahama-2	Reactor power reduced due to sea-water leak into condenser.
Aug. 25	Sendai-1	Reactor scram due to main steam valve shutdown caused by O ring damage.
Aug. 27	Fukushima I-1	Crack found in low pressure injection system sparger during periodic inspection.
Sep. 2	Kashiwazaki-Kariwa-1	Generator power reduced due to condenser vacuum fracture.
Sep. 18	Fugen	Reactor manually shut down due to moderator temperature rise caused by jellyfish stuck at sea water inlet.
Sep. 30	JCO Tokai	Criticality accident at conversion test building of uranium fuel processing plant. Three workers heavily exposed to radiation (mainly to neutrons). Two fatally injured.
Oct. 18	Fukushima II-2	Reactor manually shut down due to abnormal revolution of recirculation pump.
Oct. 27	Fugen	Reactor manually shut down due to coolant leak from pressure tube.
Nov. 18	Fugen	ECCS accumulator valve failure during periodic inspection.
Nov. 3	Ikata-3	Emergency diesel generator manually shut down due to damage to engine shaft.
Dec. 9	Tsuruga-1	Over 300 cracks found in core shroud support during periodic inspection.
Dec. 27	Tokai I	Equipment at tip of fuel assembly housing dropped during removal of fuel assemblies after dismantling.

Anti-Nuke Who's Who

Jinzo Isobe

"We are not fighting. We are seeking the truth."

Interviewed by Masakazu Saeki

"I never even dreamed of seeing such an unjust judgement. It is an unexpected and misdirected judgement. The Monju-type nuclear reactor is not developed elsewhere in the world, and Monju itself had an accident and has been left by the government without any plan to restore it. The judge must be ashamed of making such a judgement." The words of Mr. Jinzo Isobe, the leader of the Monju Case plaintiffs, on 22 March 2000. Mr. Isobe spoke calmly, controlling his profound distress over the Monju ruling. (See NIT pp. 1-2) He was born 90 years ago, in September 1909.

On 3 February last year, Mr. Isobe, in a wheel chair, entered the Fukui Local Court of Justice to make the final statement. "At the first hearing, I said that scientists should not be too proud of themselves. I regret that the defendants never gave any serious thought to that. The most important thing is that people apply themselves to their vocations, while keeping their belief in Buddhism; and that the government always bear in mind the mercy of Buddhism. To name the first breeding reactor 'Monju,' after one of the many Buddhist saints, was a sacrilegious act, and the reactor was punished by Buddha. I believe the best choice for us is not to re-operate it but to refrain from its further development. I beg the judge to consider this point and make a judgement which answers our thoughts."

Already 15 years have passed since Mr. Isobe brought the case to the court. That was on his 76th birthday. He lives in Nouma, Tsuruga-city, 7 km away both from the Monju reactor and the Tsuruga nuclear power plant. He used to run a liquor shop while farming and fishing as well, but his life has changed.

He is not able to go fishing now, and has handed over the rice field and the plum field to his daughter and her husband. The liquor shop has been scaled down to a couple of vending machines. These days his daily routine is to clasp hands to the household Buddhist altar in the morning and to look at the Tsuruga bay from the window of his room.

A nuclear disaster drill was held on the day after the judgement. Mr. Isobe's house is in the area of 'house stand-by'. Twenty years ago, the tradescantia in his garden told him of the danger of radiation by turning from indigo to pink.

As for the pending appeal, he vigorously declared that he would summon up all the strength in his old body to lead the Monju Case plaintiffs to the very end. He added: "We are not fighting anyone. Let's just concentrate on getting to the truth behind Monju and other nuclear power plants." These words are perfectly expressive of his character.

NEWS WATCH

Liberal Democratic Party Drafts Comprehensive Energy Policy

The Subcommittee on Comprehensive Energy Policy, set up by the LDP in March, published its first interim report on 24 May 2000. While calling for a steady promotion of nuclear power, the report clearly stated that it has "become less urgent" to commercialize the fast-breeder reactor. Referring to the nuclear fuel cycle, the Subcommittee said that they would discuss the possibility of taking a flexible attitude. The report pointed out that we are in an era in which we should be asking what we should do with the demand, rather than what the demand will be. In this respect it reflects the notion of "demand-side management."

Ministerial Reorganization to Affect Nuclear Industry

In its 30 May 2000 Cabinet meeting, the government drafted the ordinance for the ministerial reorganization which is scheduled to be carried out from January 2001. According to this ordinance, commercial reactors will be placed under the jurisdiction of the newly-created Ministry of Economy and Industry. The Agency of Natural Resources and Energy will be controlled by the Ministry as before. However, the department responsible for nuclear safety regulation, which is now under the Agency, will be transferred to the Nuclear Power Safety and Security Board, a newly-established organ of the Agency.

The research and development of nuclear power will be placed under the jurisdiction of the newly-created Ministry of Education, Science and Technology. In this ministry there will be no independent safety regulation department.

Compensation for Damages Due to JCO Accident Totals 11.56 Billion Yen

On 10 May 2000, JCO released figures on the amount of compensation paid to local residents as of the end of April. According to JCO, there were about 6,540 cases in which compensation had been agreed between the company and local residents and local businesses. This compensation totaled 11.56 billion yen, the bulk of which had been paid through financial assistance from the parent company, Sumitomo Metal Mining, Co., Ltd. The cases which have yet to reach an agreement are about 380, and it seems difficult for them to reach an agreement, since among them there is one company that is claiming for several billion yen.

Policy Formulated for Decisions on Nuclear Damage Compensation

The Study Committee on Nuclear Power-Related Damages, set up by the Science and Technology Agency in October 1999, submitted a report on 26 May 2000, to the Atomic Energy Commission. It contains some basic ideas on various damages incurred as a result of the JCO accident. According to the report, a bodily injury will not be compensated unless the claimant proves that the injury was caused by radiation. This means that an injury cannot be compensated unless an acute disorder appears. Psychological suffering cannot be recognized as damage unless there

are special circumstances.

As for business damages, the Committee has limited these to the decreased income incurred during the period between the accident (30 September 1999) and the end of November 1999. This fails to acknowledge the reality of the damages which are still being felt by some local businesses. It seems that cases where compensation negotiations with JCO have not been settled (see the previous article) are claims of business damages.

Test Operation at Tokai Reprocessing Plant Begins

Tokai Reprocessing Plant, owned by Japan Nuclear Cycle Development Institute (JNC, formerly PNC), began a month-long test operation on 29 June 2000 while having no credible justification for pursuing reprocessing. The reprocessing plant had been shut down since the fire and explosion at the Bituminization Facility in 1997. The plan is to reprocess a portion of the spent fuel stored on site in a storage pool during the test period, and then to begin a full operation and reprocess about 40 tons of spent fuel by March 2001. The spent fuel to be reprocessed originated from Tokai II Reactor of the Japan Atomic Power Co. Ltd. and totals 5.7 tons. The Village Assembly of Tokai-mura expressed its approval for the re-operation of the plant in May, 2000. However, no official approval has been given from the village. Neither JNC or the government has specified the usage of the extracted plutonium.

Japan, U.S. Agree to Further Cooperation in Burning Russia s Dismantled Plutonium

On 3 May 2000, during his visit to the United States, Japan's Science and Technology Agency Minister Nakasone Hirofumi and the Secretary of the U.S. Department of Energy Bill Richardson signed an agreement on a new technological cooperation project for burning Russia's dismantled plutonium. The Japanese government is now considering a contribution of about 100 million yen to this project in the 2001 financial year.

The agreement is to develop and provide Russia with a new type of high-temperature gas reactor, in which dismantled plutonium can be more effectively burned. Japan and the U.S. have already cooperated in burning plutonium from Russia's dismantled nuclear arsenal, using the country's BN-600 Fast Breeder Reactor. The recent agreement is for further cooperation. Even though this project concerns the disposal of plutonium, Japan's direct involvement in nuclear arsenal-class plutonium must not be allowed.

ANNOUNCEMENT

CNIC's former Director Dr. Jinzaburo Takagi has received the 9th Tajiri Award which is given to prominent figures who have fought against wide-spread pollution, lack of compensation for work-related injuries, and large-scale development harmful to the environment.

PUBLICATION

CNIC's Japanese booklet, The Shock of Criticality Accident, was published by Iwanami in Dec. 1999. We have now published an English-language booklet based on this. The new booklet includes a complete analysis of the government investigation committee's final report on the Sep. 1999 accident. It also gives up-to-date information on nuclear-related administrative developments, compensation, and the views of local residents and the general public. The booklet is also filled with figures, tables, illustrations, and detailed maps which give the readers a comprehensive grasp of nuclear power in Japan.

For placing orders or for further information, please contact CNIC.

Criticality Accident at Tokai-mura

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