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“Rethinking Nuclear Energy and Democracy after 9/11” An International Conference Held in Basel, Switzerland



From the left: Olivier Deleuze (Minister of Energy and Sustainable Development, Belgium), Jean-Francois Collin (former Director of the Environment Ministry, France), Kazuyuki Takemoto (farmer, Japan), Mycle Schneider (WISE-Paris Director, France), and Rebecca Harms (Chairperson of the Green Group, Germany).

Introduction: Nuclear Energy History in Switzerland

On April 26 and 27, commemorating the 16 years that have passed since the Chernobyl accident, an international conference called “Rethinking Nuclear Energy and Democracy after 9/11” was held in Basel, Switzerland. Basel is a city close to the borders of Germany and France, and is known as an actively anti-nuke city, along with Geneva. Twenty-five years ago, there was a plan to build a nuclear power plant in the neighborhood of Basel, but it was cancelled through coordinated efforts by citizens.

Switzerland as a whole still depends on nuclear energy for 40% of its electricity, approximately 5% more than Japan. At the same time, it is known for popular vote initia-

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tives on nuclear energy. In 1990, a national referendum approved an initiative to stop nuclear power plant construction for the next ten years. The success came after failed proposals in 1979 and 1984. In 2003, there will be another public vote on the issue of full nuclear power phase-out. According to Mr. Conrad Brunner, a Swiss energy consultant, 75% of the people are against nuclear power. Yet, majority votes both at canton and state levels are needed to pass these initiatives and Swiss citizens cannot afford to be off their guard until the final result comes out. Hopefully, this symposium will give a further momentum to the people's desire for nuclear phase-out.

The conference was hosted by Physicians for Social Responsibility and International Physicians for the Prevention of Nuclear War (IPPNW), Switzerland. In his welcoming speech, prof. Andreas Nidecker mentioned that since 1999, the IPPNWs have addressed the issue of civil use of nuclear power as a technology linked to the weapons issue through the common use of plutonium. He also stressed the importance of communication and encouraged animated discussion at the conference attended by speakers from varied backgrounds; medical doctors, politicians, the Deputy Secretary General of the IAEA, ministerial officials, government bodies, and NGOs, in short, both critics and promoters.

Nuclear Power Plants Are Not Terrorist-proof

As the title of the symposium indicates, the issue of possible terrorist attacks was one of the main focuses. Mr. David Waller, the Deputy Secretary-General of IAEA, discussed the Agency's efforts to safeguard radioactive material to prevent any use by terrorists. On the other hand, Mr. Edwin Lyman from the Nuclear Control Institute in Washington pointed out the lack of sufficient measures to prevent attacks on nuclear facilities. "In the United States, the NRC has been requesting countermeasures against terrorist attacks on nuclear facilities since the 1970s. However, these measures

were not quite effective. It was also revealed that the Operational Safeguards Response Evaluation (OSRE), a spot test to prevent intrusion by terrorists, is not adequate. After 9/11, the NRC called for security reinforcement of the nuclear facilities. Military forces were mobilized in some states, but 75% of the operators of nuclear facilities have not come up with effective measures yet." He also attributed this insufficiency of measures to fierce utility fee competition. He concluded that in practice, there are no effective measures even though the NRC is currently under pressure to do a review in light of possible terrorist attack. A similar critical picture was drawn by Mr. John Large who owns the consulting company that salvaged the Russian Submarine Kursk. He discussed the vulnerability of Sellafield, a reprocessing plant which has numerous flight paths close to the plants. He also mentioned that it would only take 4 or 5 minutes to hijack a passenger plane and crash it into the site, saying that the existing nuclear facilities would not withstand the impact of a commercial aircraft. Furthermore, fire after an air crash might destroy electric circuit, which would make the plant uncontrollable.

Suggestions on Liability for Nuclear Damage -A System that Can Never Be Perfect

Mr. Tom Vanden Borre, a legal counselor of the Belgian Prime Minister's Office, stated that under the existing nuclear liability conventions (Paris and Vienna Conventions), terrorism is not a ground for exoneration, and thus, the operator of a nuclear installation would be liable for damage due to acts of terrorism. The legal situation is not much different in countries that are not members of one of the Conventions (Japan is not a signatory state to the Paris or Vienna Conventions). He mentioned some examples of nuclear insurance policies, such as Captive (property insurance scheme created by nuclear operators in the US and Europe), and some special reinsurance policies in which members of the nuclear industry re-insure each other instead of reinsuring on the

common market. As alternative insurance measures after 9/11, he further suggested the creation of other schemes such as a nuclear Captive covering only terrorism risk, damage funds covering environmental liabilities, and the ART-Mechanism (Alternative Risk Transfer), which use insurance derivatives like swaps and options. In his concluding remarks, he stressed that there will never be a miracle solution on nuclear insurance policy and measures preventing terrorist attacks are at least equally important.

Presentations from Japanese Delegates: Toward Nuclear Phase-Out

Mr. Hideyuki Ban, the Co-director of CNIC, made a presentation on the 1999 JCO criticality accident at a uranium conversion plant in Tokaimura, with detailed explanation on the causes of the accident and its consequences. Two workers lost their lives due to severe radiation exposure, and more than 664 people were exposed to radiation. Mr. Ban said, "After the accident, there has been a drastic shift in people's perception of nuclear energy. The word, 'Nuclear' was even omitted from Tokaimura's entrance sign board."

Mr. Kazuyuki Takemoto, a Kariwa village farmer, talked about the local referendum regarding the Pluthermal plan (use of MOX in LWR) at Kashiwazaki-Kariwa station, the world biggest nuclear power station site. The referendum was carried out in May 2001, and successfully rejected the Pluthermal plan despite the fact that one-fourth of the Kariwa households are dependent on the nuclear industry. He said that the main reasons for this result were that: 1) Residents have a feeling that they have been very obedient to the state policy, accepting nuclear power plants one after another, and now they are asking, "Why do we have to contribute more?" 2) After the JCO accident and the disclosure of falsified inspection data for MOX fuel, resident have doubts about the Japanese nuclear safety myth.

Japan has seen three consecutive victories of anti-nuke referenda in recent years. Mr. Take-

moto believes that there will be a day in the future when Japan will successfully achieve a shift from the nuclear energy policy by referenda. His detailed presentation on local initiatives and future perspectives on Japanese nuclear policy produced a good reaction from the audience, and right after the conference IPPNW Switzerland proposed a joint event to be held in Japan, aiming at local-level communication between people living near nuclear facilities in Japan and Switzerland.

Dr. Testunari Iida, the principal of the Institute for Sustainable Energy Policy (ISEP), severely criticized the typical Japanese situation of bureaucratic domination accompanied by politicians' complicity and experts' irrational theories, explaining why the nuclear risk has been disregarded. At the same time, he touched upon the emerging trend of local initiatives including Kariwa's referendum and the Fukushima governor's initiative to do an independent energy review.

The former Japanese ambassador to Switzerland, Mr. Mitsuhei Murata, the chairperson of the Nuclear Policy Decision-Making session, stated his anti-nuclear energy position thus: "Japan, the victim of the military use of nuclear energy, is treading the path toward becoming the victim of the civil use of nuclear energy." He is particularly concerned at present about the Hamaoka nuclear power plants, which are located in the region where a magnitude 8 earthquake could occur at any time soon. He further mentioned that a civil society should take a key role in changing the course of nuclear policy, and talked about his plan to issue a joint statement with the support of citizens' groups so that local municipalities should be persuaded, which would eventually shift the central government's policy (see page 4).

The Austrian Constitution for a Nuclear-Free Society

Mr. Klaus Renoldner, the president of the Austrian affiliate of IPPNW and chairperson of the NGO Committee on Peace at the UN, presented his country's unique path toward a non-

nuclear society. In Austria, as early as 1978, the start-up of the Zwentendorf nuclear power plant was suspended by a national referendum. In 1989, when Austria's EU membership was approved by a national referendum, conservative parties started to insist that the country become a member of NATO, and people were concerned about the possibility of nuclear weapons deployment on Austrian territory. Therefore, IPPNW-Austria, along with citizens, collected many signatures on a petition for a new constitutional law against nuclear society. As a result, on July 13 1999, the Austrian Parliament agreed upon the "Constitutional Law in favor of a Nuclear-free Austria". The new law includes the following three pillars; 1) Nuclear weapons may not be produced, stored, transported or tested in Austria; 2) Nuclear power plants may not be constructed or used in Aus-

tria; 3) Transport of fissile material on Austrian territory is prohibited, except transport for exclusively peaceful uses, but not for the purpose of the production of energy by nuclear fission.

In the Austrian constitution, we see the ideal future for a nuclear-free society. Through the two-day symposium, we have shared the same recognition that local municipalities and citizens' participation are vital for achieving such a goal. After September 11, we cannot ignore the very real risk originating from both military and civil use of nuclear energy, and our perspective on the future has become a somewhat a grim one. However, we should maintain our ceaseless efforts to achieve a nuclear-free society through citizens' initiatives and solidarity, at local, national, and international levels.

By Mari Takenouchi

Former Japanese Ambassador to Switzerland Moves for Prevention of Nuke-Earthquake Disaster

On May 20, Mr. Mitsuhei Murata, the former Japanese ambassador to Switzerland, held a press conference in Tokyo for issuing a Statement calling for the shut-down of the Hamaoka nuclear power plants. He has gained support from the following people from various areas: Atsushi Shimokoube (Former Vice Minister of the National Land Agency), Yuki-ka Souma (Vice Chairperson of Yukio Ozaki Foundation), Toshiro Nishigori (Former Vice



Mr. Mitsuhei Murata (middle), the former Japanese ambassador to Switzerland, asking for opinion from Mr. David Waller (left), the Deputy Secretary General of IAEA on the issue of Hamaoka nuclear power plants and earthquake.

Chairman of the Japan Association of Solar Thermal Utilization), Akira Hasegawa (Former Chairman of the Plasma Department, American Physics Society), Seiichi Mizuno (Former Member of the House of Councilors). Mr. Murata called for the breaking of the media's taboo on presenting the true stories regarding Hamaoka. Mr. Mizuno insisted that this statement was not solely for the protection of citizens, but also for the survival of the nuclear industries. Now the lawsuit is underway seeking an injunction on Hamaoka, with more than 1000 plaintiffs. Ignoring the growing concern of these people, on May 25, Chubu Electric resumed the operation of Hamaoka 2, and another water-leak accident occurred only 13 hours after the resumption. Now there are seven local councils demanding the shutdown of the Hamaoka nuclear power plants.

By Mari Takenouchi

MOX Return Shipment: Casks Yet to be Approved

Two ships left the United Kingdom on the morning of April 26. The names of the two ships are Pacific Teal and Pacific Pintail. The ships are armed with British security guards. They arrived in Takahama port, Fukui prefecture, on June 14. It was in 1999 when the data falsification and fabrication scandal concerning MOX quality control was exposed. Consequently, following negotiation with the UK government and BNFL, the Japanese government and the Kansai Electric Power Company (KEPCO) reached an agreement to return the controversial MOX fuel to the UK. Thus, the shipment this time is solely for the retrieval of that fuel.

After the scandal was disclosed, KEPCO immediately entered into a contract with COGEMA, the owner of the French MELOX factory, to start additional MOX fabrication at the end of 1999. However, this fabricated MOX by MELOX was finally cancelled by a decision of the Ministry of Economy, Industry and Trade (METI). The METI claimed that the said MOX did not comply with the improved quality control standard established in July 2001. Currently, KEPCO has no contracts with any companies for MOX fabrication. KEPCO stated that they would enter into a contract with COGEMA or BNFL after ensuring the return shipment of the Takahama MOX fuel.

Recently, a claim has been made that this transportation is illegal. KEPCO returned the once-approved license application of the cask design to the Ministry of the Land, Infrastructure, and Transportation (MLIT), and on April 16, 2000, KEPCO submitted the modified license application for the design of the casks. This means that the two ships had left for Japan with casks that have not yet been approved. This is an extremely roughshod approach, which means that the legal side of this issue would remain unsolved unless the approval is issued before the two ships depart from Japan.

In addition, the MLIT said that the cask-approval is not needed if the transportation safety is certificated. This is an unusual procedure that has never been seen before. Moreover, there has never been any fair explanation so far as to why this transportation needs to be rushed.

Meanwhile, this scandal-plagued MOX fuel has been retained unused in the storage pool in the Takahama nuclear power station. During these three years, 15% of the plutonium-241 has decayed to americium-241. According to KEPCO's explanation, their rejection of the once-approved license was due to the unregistered information regarding the increased americium amount. At the same time, another issue was disclosed on a document attached to the design application form. In the attached document, which shows the radiation shield analysis of the cask in the light of the legal standard, KEPCO is using the reduced plutonium-241 figure estimated as at December 2004, while they are doing the same analysis with the increased figure for the americium.

This fact shows that transportation safety before December 2004 is not guaranteed, and we can say that the shipment to be conducted this time is violating the regulation.

In Fukushima prefecture, the governor is now promoting the energy policy, and on June 3, he stated that he would rethink the energy plan including the suspension of the Pluthermal plan. His statement shows the influence of strong opposition from citizens and also the rejection of the Pluthermal plan through the referendum in Kariwa village in May 2001. The Pluthermal plan supposed to have begun in 1999 is still being stalled due to the strong opposition of the citizens.

On July 5, the MOX fuel loaded ship was departed to Britain by way of the Cope of Good Hope.

By Hideyuki Ban

DATA: Significant Incidents at Nuclear Facilities 2001

Date	Facility	Brief Description of Event
Jan. 15	Fukushima II-1	Reactor manually shut down due to rupture of coolant flow measurement housing tube at jet pump.
Mar. 4	Takahama-2	Power reduction due to steam leak into high pressure feed water heater drain line.
Apr. 5	Kashiwazaki-Kariwa-5	Control rod manual operation system failed due to integrated circuit abnormality.
Apr. 19	Takahama-1	Reactor power manually lowered due to coolant leak caused by two heat exchange tube ruptures in high pressure feed water heater.
May 7	Fukushima II-2	Reactor manually shut down due to failure of shutting check valve during residual heat removal system inspection.
May 23	Fugen	Reactor manually shut down due to tritium leak at helium circular system piping.
May 24	Fukushima I-6	Radioactivity leak found in fuel assembly during intermediate periodic inspection.
Jun. 18	Kashiwazaki-Kariwa-6	Reactor manually shut down due to coolant leak at reactor auxiliary cooling system valve.
Jul. 6	Takahama-3	Damage on 17 steam generator tubes found during periodic inspection.
Jul. 6	Fukushima II-3	Cracks found on core shroud lower ring during periodic inspection.
Jul. 8	Kashiwazaki-Kariwa-5	Control rod manual operation system failed due to integrated circuit abnormality.
Jul. 13	Kashiwazaki-Kariwa-5	Control rod manual operation system failed due to integrated circuit abnormality.
Jul. 21	Kashiwazaki-Kariwa-7	Radioactivity leak found in fuel assembly.

Date	Facility	Brief Description of Event
Jul. 27	Kashiwazaki-Kariwa-6	Control rod manual operation system failed due to integrated circuit abnormality.
Aug. 10	Rokkasho repro.	1.6 tons of coolant leaked from pool coolant system heat exchanger outlet valve at spent fuel storage pool.
Sep. 8	Ikata-2	145 cracks found on reactor core monitor housing tubes due to chloride induced stress corrosion cracking during periodic inspection.
Sep. 10	Kashiwazaki-Kariwa-4	Ruptures and cracks found on regenerated heat exchanger tubes during periodic inspection.
Sep. 19	Kashiwazaki-Kariwa-5	Control rod manual operation system failed due to integrated circuit abnormality.
Sep. 25	Onagawa-2	Reactor manually shut down due to coolant leak from degraded recirculation pump mechanical sealing.
Oct. 31	Joyo Experimental Fast Breeder Reactor	Fire at maintenance building during sodium cleaning operation.
Nov. 1	Fukushima II-2	Reactor automatically shutdown due to high signal of reactor neutron flux during reactor start-up operation.
Nov. 7	Hamaoka-1	Reactor manually shut down due to pipe rupture in residual heat removal system steam condense mode line caused by detonation of radiolysis gases during start-up test at high pressure core injection system pump.
Nov. 9	Hamaoka-1	Reactor coolant leak due to crack of stub tube welding attached to control rod drive mechanism housing.
Dec. 10	Tokai II	Reactor power reduced to 65 % of full capacity due to lowered reactor water level caused by abnormality of water flow control integrated circuit during maintenance in feed water pump system.
Dec. 28	Rokkasho repro.	Coolant leak from PWR spent fuel storage pool.

Insufficient Investigation: Hydrogen Explosion and Water Leak at Hamaoka 1

The Reports on 1 Submitted

On April 24, Chubu Electric Power Company submitted a final report to the Ministry of Economy, Trade, and Industry (METI) regarding the two accidents at the Hamaoka 1 in November 2001¹. The report summarizes the investigations of the cause and the reoccurrence prevention measures for both the Residual Heat Removal System (RHRS) pipe rupture and the water leak from the Control Rod Drive (CRD) housing of the reactor pressure vessel.

The final report concludes with the mechanism of the cause of the two accidents as follows.

In the pipe rupture accident, hydrogen and oxygen were generated in the RHRS pipe due to radiolysis of reactor coolant in the pressure vessel, and then accumulated in a high concentration in the pipe. When a pressure spike was made by the periodical manual startup test of the High Pressure Coolant Injection (HPCI) system, the pressure fluctuation in the pipe led to an ignition followed by the detonation. The report explains that noble metals (Pt and Rh), used to prevent stress corrosion of the lower part of the reactor containment vessel, might have been involved in the detonation.

As for the water leakage accident from the bottom of the pressure vessel, it was thought that the stress - which was supposedly made when the CRD Housing was welded to the pressure vessel - would have caused the corrosion crack.

Following the report by Chubu Electric Power Company, both the Nuclear and Industrial Safety Agency (NISA) in METI and the Nuclear Safety Commission (NSC) issued investigation reports on May 13 and May 23 respectively, which confirmed the content of the report and the analysis conducted by Chubu Electric Power Company.

Rushed Work and Ensuing Accident at Unit 2

None of the reports conducted a scientifically sound analysis or adequately clarified the cause

1. Related articles can be found in NIT 87 p. 11 and NIT 88 pp. 1-5.

of the accidents. This gives an impression that the report was hastily written to put an end to the matter of the accidents at Hamaoka 1 and to mitigate adverse reactions in regard to other nuclear plants. On May 24, the day after all the government reports were issued, Chubu Electric Power Company started the operation of Hamaoka 2. However, much bustling activity at the company resulted when the operation was shut down due to a water leak from a drainpipe of the Low Pressure Coolant Injection (LPCI) system. The accident at Hamaoka 2 reveals the superficial nature of the report and the inadequacy of Chubu Electric's investigation.

Causes of the Pipe Rupture Remain Unclear

In regard to the pipe rupture accident, Chubu Electric Power Company and Toshiba Corporation - the plant manufacturers - have conducted accident reproducibility experiments and analyzed the results, assuming the scenario of the accident.

The experiments include: 1) a gas accumulation test to check whether a gaseous layer of hydrogen and oxygen and a steam layer are generated; 2) a pressure fluctuation test to check whether start-up of the HPCI pump and opening

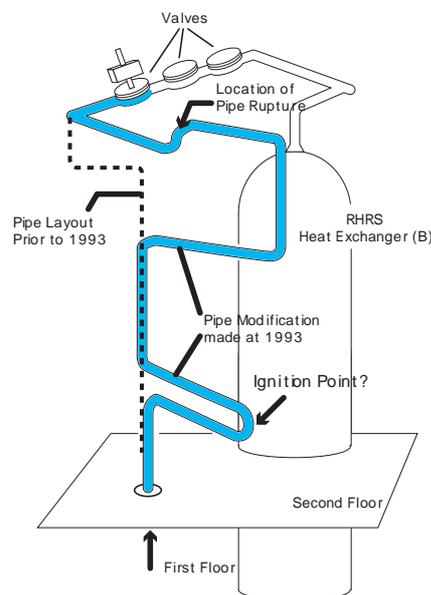


Figure 1. RHRS pipe modification made at 1993.

the valve will feed high-temperature steam into the gaseous layer; and 3) an ignition test to check whether the inflow of the steam would ignite to hydrogen and oxygen.

In the experimental test, the data suggests reproducibility of the event, with the gases becoming stratified and accumulated, and steam entering the gaseous layer upon the opening of the HPCI valve. However, the main steam temperature in a Boiling Water Reactor (BWR) only reaches 290 °C. It is considered that the steam temperature must be more than 350 °C for the ignition of hydrogen and oxygen under the pressure of the 6 to 7 MPa in the pipe. The scenario, assuming the ignition was caused by the heat supply from the steam inflow, is insufficient to explain this accident.

During the test, the ignition was confirmed in only four cases out of 104 trials. In each of the four cases, Pt and Rh were added at considerably higher concentrations (approximately ten to hundred times more) than the ones detected on the inside surface of the ruptured pipe at Hamaoka Unit 1. As a result of this experiment, the report concluded that noble metals are probably related to the ignition in the pipe.

At the start-up of the periodical investigation at Hamaoka Unit 1 two years ago, a noble metal chemical addition was implemented to prevent stress corrosion cracks in the reactor pressure vessel and structures inside the vessel (Figure 1). This measure was taken to complement the hydrogen water chemistry in the coolant, which had been conducted prior to the investigation. The noble metals detected in the ruptured pipe were the same as those leaked from the valve when the RHRS B pump was started up during the noble metal chemical addition.

It is not clear how the noble metals remained in the pipes. Were they adhering to the inside surface of the pipes, or were they in any gaseous forms? In any case, even though the noble metals could accelerate the reaction rate of hydrogen and oxygen, it is hard to believe that they acted to reduce the ignition temperature by tens of degrees. Are there any factors connected to the ignition that have not been covered in the scenario?

The direct cause of the ignition was not specified in the final report. The report points out that one of the possible causes was due to the alteration work on the pipe in 1993. As for the leakage prevention measure of the RHRS branch valve, the pipe was altered and made crooked so that the coolant was stored in the upper part of the valve. It is obvious that this alteration enabled hydrogen and oxygen to remain in the pipe. As a prevention measure for Hamaoka 1, Chubu Electric Power Company decided that they would remove the steam condensing pipes in the RHRS, and install valves where hydrogen will likely be accumulated.

On June 13, NISA announced a plan devised by all 20 electric companies to obviate the risk of a hydrogen explosion accident at 20 BWRs: Hamaoka 1 and 2; Onagawa 1, 2, and 3; Fukushima I-1, 4, and 6; Fukushima II-1, 2, 3, and 4; Kashiwazaki-Kariwa 1, 2, 3, 5, 6, and 7; Shimane 1; and Tsuruga 1. This measure was implemented in accordance with the NISA's call for additional investigation of the pipes other than steam condensing pipes. The plan includes the installation of bent pipes (exhaust pipes) and the modification of the pipe layout during the periodical investigation (some of these modifications are currently being introduced).

Water Leak Check to Be Continued

On June 19, NISA also demanded that there should be further inspection and investigation of the accident at Hamaoka in which a crack appeared and a leak was discovered in the stub-tube of the CRD housing. June 19 is the date marked for this work. This inspection will be made with a view to ensuring safety at power plants which employ the same materials and welding methods as the Hamaoka BWR unit. Those include five BWR type reactors: Onagawa 1, Fukushima I-6, Fukushima II-1 and 3, Kashiwazaki-Kariwa 1. The visual inspection of the penetration portion of the CRD Housing will be performed during periodical inspections using an underwater camera after nuclear fuel is removed from the reactor vessel by 2004.

By Chihiro Kamisawa

Anti Nuke Who's Who

Sadao Yamato: A Man Who Never Gives Up

By Shoji Kihara, Group for No-Nukes Hiroshima



Iwai-shima (Iwai Island) is the base location for citizens' movement against Kaminoseki nuclear power plant, where the construction plan is underway at just 3 km from the Island. Sadao Yamato, the manager of Iwai-shima fishery co-operative and the representative of the "Iwai-shima Islanders' Group Against the Construction of Kaminoseki Nuclear Power Plant," was re-elected as an assembly of Kaminoseki town in February of this year for the third consecutive year. He has played a central role for the movement against Kaminoseki nuclear power plant.

Only his fishery co-operative, among eight other co-operatives affected by the construction of Kaminoseki nuclear plant, has refused to receive a compensation of their fishing activities from Chugoku Electric Company. Moreover, it filed a suit against the electric company for voiding a contract of the fishery compensation.

He was born in Iwai-shima in 1950 and raised on the island until he was a junior high school student. Upon graduating the school, he left the island to attend a high school and pursue a higher degree. After he graduated from Simane University, he got a job at Matsue-city in Simane Prefecture. There is one Simane nuclear power plant owned by Chugoku Electric Company just 10 km from the city. Since then, he started to recognize nuclear issues.

The construction plan of the nuclear power plant at Kaminoseki town emerged in the fall of

1981. His strong feeling against a nuclear power plant in his hometown made him return to Iwai-shima. He was welcomed and offered administrative work by Iwai-shima fishery co-operative.

His anti-nuke group, "Iwajima Islanders' Group Against NPPs" is not limited to the opposition of nuclear power, but to include practical plans to boost the island's economy without nuclear power by, for example, diffusing the island's special products all over Japan.

Today, the group is actively working on planning to construct a "gathering place" on the proposed nuclear power plant site as a "20th anniversary project for the anti-nuclear power plant movement in Kaminoseki." Even just three months after the announcement of the plan, 5 million yen (\$ 650 million) which can cover half of the construction cost, was contributed from all over Japan. Currently, the island's population is 700 and the ninety percent of them are against nuclear power.

In last April, when Agency for Natural Resources and Energy inquired of the governor of Yamaguchi prefecture about his opinion over the construction of Kaminoseki nuclear power plant, Mr. Yamato went on a seven days sit-in at the front of the prefecture's building. With this protest as a turning point, the movement against Kaminoseki nuclear plant expanded into a widespread citizens' movement.

Endless activities such as working for the fishery co-operative, pursuing political activities as an assemblyman, attending court trials, and hosting visitors to Iwai-shima from various countries, does not allow him to take a good rest in his everyday life. What he is looking forward to, however, is to take a time for reading a book or listening to music in his log-house erected on a loquat field, although his busy schedule keeps him away from such a pastime.

NEWS WATCH

The Basic Law on Energy Policy Passes the Diet

On June 7, the Basic Law on Energy Policy was approved at the House of Councilors. The law had been opposed, as it supports the development of nuclear power as the nation's primary source of energy. This bill gives its highest priority to "securing a stable supply of energy". The bill was introduced by the ruling party members, and it is obvious that nuclear energy is their main intention in enacting this law.

Reckless Remarks on Three Non-Nuclear Principles by Chief Cabinet Secretary

On May 31, the Chief Cabinet Secretary, Yasuo Fukuda, remarked to the Cabinet reporters' club during an informal talk that "in an era of calls to amend the Constitution if the tension is mounting in the international relationship, public opinion might favor a nuclear-armed Japan even though we have three non-nuclear principles." The remark was initially anonymous and reported as being made by a "senior government official" because it was over during an off-the-record conversation. However, increasing public uproar this reckless pro-nuclear comment forced the government to reveal that the Chief Cabinet Secretary was the "senior government official". Mr. Fukuda also said at an official press conference that in the light of the Constitution, Japan could possess nuclear weapon for self-defense purposes.

After being widely criticized, Mr. Fukuda made an excuse, saying, "there will be no review of the three non-nuclear principles by the Koizumi Cabinet"; "under the Atomic Energy Basic Law, "Japan can only utilize its research, and development for peaceful purpos-

es". Therefore, Japan cannot possess any nuclear weapons". Yet, Mr. Fukuda's proviso "by the Koizumi Cabinet," does not guarantee that the three non-nuclear principles will be maintained.

The three principles were first confirmed as government policy by then Prime Minister Eisaku Sato during a Committee on the Budget at the House of Representative in December 1967. The three principles commit the nation: 1) not to possess, 2) no to manufacture, and 3) not to allow nuclear weapons on its soil. Although, the decision was made to follow the three non-nuclear principles at the plenary session of the House of Representatives in November 1971, the call for the legislation of these principles has been neglected. As for the third principle, it has been suspected that U.S. Armed Forces stationed in Japan might possess nuclear weapons. Also, U.S. warships visiting Japanese ports might be carrying nuclear weapons. Therefore, some think that the legislation of the three principles is impossible since the principles have been violated since their establishment.

Tsuruga 1 to Be Decommissioned

On May 30, the Japan Atomic Power Co. (JAPCO) reported to Fukui prefecture and Tsuruga city on their plan to terminate the operation of Tsuruga 1 (BWR, 357MW) in 2010. Tsuruga 1 started commercial operations in March 1970, so it will be 40 years old in 2010. It was the first LWR in Japan, and will be the first LWR to be decommissioned. JAPCO estimates the decommissioning cost to be approximately 32 billion yen (\$250 million).

Prior to the decommissioning of Tsuruga 1, in March 2003, the Japan Nuclear Cycle Devel-

opment Institute (JNC) will stop the operation of their Advanced Thermal Reactor Fugen (165MW). Currently there are 15 nuclear power plants in Fukui prefecture and the governor has stated that he would not accept any increase in the number of reactors. Since the two reactors, Fugen and Tsuruga 1, are to be shut down, JAPCO sought the constructions of Tsuruga 3 and 4 (Advanced Pressurized Water Reactors, 1538MW each) in Fukui prefecture and Tsuruga city, making their application on the same day of the announcement of Tsuruga 1's decommissioning. This request was later accepted by the governor. Consequently, the total output will be sharply increased, though the number of the reactors will stay the same.

JFBA Requests the Cancellation of Kaminoseki NPP Plan

On May 15, the Japan Federation of Bar Associations (JFBA) submitted a letter of request to the electric company, the prefectural government, and Kaminoseki town, seeking the cancellation of construction plans for Kaminoseki nuclear power plants 1 and 2 (Advanced Boiling Water Reactors, 1373MW each).

The letter of request points out the risk of accidents in view of the strong seismic activities which have repeatedly taken place in the area surrounding the planned site. It also indicates that there is a possibility of the destruction of the precious ecosystem in the region (See NIT 84).

The JFBA reached the resolution seeking the suspension of further construction of nuclear power plants and the gradual phase-out of existing ones. It is the first time that the JFBA has demanded the cancellation of particular nuclear power plants. The construction plans for the Kaminoseki nuclear power plants were introduced in the Electric Power Development Fundamental Plan in June 2001. However, since a Shinto priest who owns part of the site has been refusing to sell it, the license applications for siting the nuclear power plants have remained unsubmitted for one year.

First Round of Safety Inspection for Remodeling Monju Completed

On May 7, the Nuclear and Industry Safety Agency (NISA) concluded that there is no problem regarding the safety assessment of the Monju (Fast Breeder Reactor, 280 MW) remodeling plan. On the following day, the Ministry of Economy, Trade and Industry (METI) consulted the Nuclear Safety Commission for reconfirmation of this assessment. In June 2001, the Japan Nuclear Cycle Development Institute (JNC) submitted the license application for remodeling Monju to METI. The operation of Monju has been suspended due to the December 1995 sodium leak and fire accident.

SUBSCRIPTION

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