



Aomori Allows Spent Fuel Shipment to Rokkasho

Fear of Rokkasho becoming the final nuclear waste dump remains.

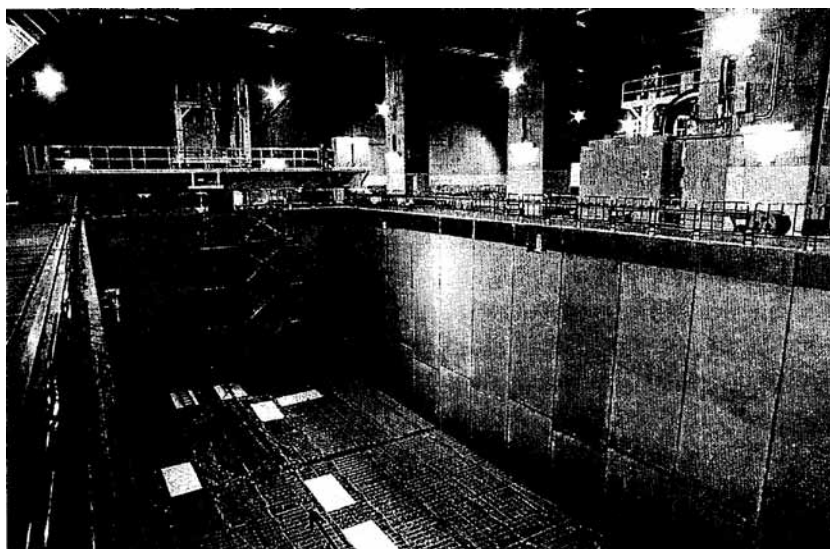
The Aomori prefectural government, the village of Rokkasho, and Japan Nuclear Fuel Ltd. (JNFL) signed a safety agreement on July 29 to allow shipment of spent fuel to the Rokkasho Reprocessing Plant operated by JNFL. Construction of the Reprocessing Plant started in 1993, and the official plan to begin operations is set for 2003.

Although half of the offi-

cially approved construction time-period has already elapsed, only 6% of construction of the main plant has been completed while that of the spent fuel storage pool has been completed 100%. This is because the power utility firms and JNFL had predicted a rapid increase of spent nuclear fuel stored at Japanese reactor sites and so hurried along completion of

the storage pool, regardless of overall progress made towards completing construction of the entire facility.

Since the sodium fire accident at Japan's fast breeder reactor (FBR) Monju in 1995, and the fire and explosion accident at the Tokai bitu-



Construction of spent fuel storage pool is completed compared to only 6% of the main plant.

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minization plant in 1997, the Japanese public has continued to hold doubts about the safety of nuclear power. Even in Aomori Prefecture where the Rokkasho Reprocessing Plant is being constructed, local people have expressed increasing concerns about various technical problems regarding the nuclear fuel cycle and the government's nuclear policy.

At the reprocessing plant, construction of the storage pool is being rushed while work on the rest of the plant is being stalled due to drastic changes in construction plans, including reduction of the decontamination process from two cycles to one.

It has been confirmed that the currently estimated construction cost of 1.88 trillion yen will have increased enormously by the time the plant has been completed. If the plant actually begins operation, it will produce the world's most expensive plutonium.

The plan for the reprocessing plant consists of too many unclear elements regarding its necessity and economic viability. This is precisely why the people of Aomori feared the possibility that Rokkasho would become the "final nuclear waste dump" if reprocessing never takes place, and so continue to ask the prefecture to remain "cautious" when signing the agreement.

The safety agreement, which opens the way for the shipment of spent fuel to Rokkasho, is of an unprecedented two-part arrangement: the first stage allows for the test shipment while the next stage will be for the actual shipment.

The agreement on July 29 allows for accepting spent fuel to be used as a test shipment for the calibration of combustion measurement equipment at the fuel storage facility. In order to begin the actual shipment, the second stage of the agreement must be signed, though the content of the agreement will be the same.

Both agreements have memorandums that stipulate, "in case operations of the reprocessing plant become extremely difficult, JNFL will promptly take necessary and adequate procedures including removal of spent fuel from the facility, based on discussion with Aomori Prefecture and Rokkasho." Because local residents who are against the plan have become increasingly distrustful towards the plan, the memorandum was included at the request of the Aomori Governor Morio Kimura who wanted it as a symbol that the plant will not become the "final nuclear waste dump."

The storage pool capacity is 3,000 tonU. The first series of shipments expected to begin October 2 will consist of 32 tons coming from Fukushima II, Ikata, and Sendai nuclear plants. A total of about 2,000 tons of spent fuel is expected to be shipped by 2003, the year the plant is expected to begin full operations. The newly constructed ship that will be used to carry the spent fuel to Rokkasho has been named Rokuei-Maru, which means "prosperous Rokkasho."

by Masako Sawai

CNIC Now Headed by Three Representatives

On August 31, CNIC Executive Director Jinzaburo Takagi officially resigned from the post for reasons of ill health. (See following page.) After a discussion by the CNIC board of directors, it has decided to appoint three persons to act as the Representative of CNIC.

The new Representatives are: Yukio Yamaguchi, Dr., graduate of the Faculty of Engineering at University of Tokyo. He currently teaches philosophy of science and environment at universities in Japan; Hideyuki Ban, Secretary-General of CNIC; Baku Nishio, research associate of CNIC and Editor of Hangenpatsu Shimbun (Anti-Nuclear Power Newsletter).

Considering how CNIC has been greatly dependent on Jinzaburo Takagi both professionally and financially, CNIC is expected to enter one of its most difficult periods since its establishment in 1975. We are, however, determined to overcome the difficulties and work hard to maintain the role of CNIC as one of the most reliable anti-nuke organizations in the world. We hope that all our friends and supporters in the international community will continue to give us their kind encouragement and support.

Hideyuki Ban, CNIC Representative & Secretary-General

On My Resignation as the Executive Director of CNIC

by Jinzaburo Takagi

Ever since I was hospitalized in July, we have received many inquiries about my health and messages wishing for a quick recovery from friends throughout the world. I would like to take this opportunity to give a report on my present health condition as precisely as possible and explain about my decision to resign from the post of Executive Director.

At the beginning of July, after coming back from a trip to Canada and South Korea, I had serious constipation. I was already aware of this during April and May when my health condition had already become unstable. On July 16 I was hospitalized, and after a series of detailed examinations, I was informed that I had cancer of the colon and, what is worse, it had already metastasized to the liver (several lesions in the liver). On July 30, I underwent an operation which ended successfully so far as the colon (rectocolon) cancer was concerned. I was lucky in that there was no need to insert an artificial anus. On August 22 after a stable recovery, I finally left the hospital.

I am now recovering rapidly from the post-operational condition. And if it was just a matter of colon cancer, I would only have had to cancel several lectures and the problem would not have become so grave. But reality was not that simple. There are still many cancer lesions in the liver, and some have already grown to a size which makes surgical treatment extremely difficult.

With all this, I now need to concentrate on fighting the disease. Although I am still undecided as to what kind of treatment I should receive (by the time you read this, the decision should have been reached), my life will have to be centered around my home. Because of this, it has become impossible to continue working as the Executive Director of CNIC - work which requires a tremendous amount of energy both physically and mentally.

It has been very difficult for me to reach this decision, but as of August 31, I have officially resigned from the post. Although I will remain a member of the board of directors and should also be able to work as a scientific advisor, I am very much concerned with the future of CNIC after I leave. It may well enter one of the most difficult periods since its initiation in 1975. I cannot but hope that through their devoted efforts, the CNIC staff will not only manage to overcome this crisis but succeed in forming an organization with entirely new features. In order to make this come true, I ask all our international friends and supporters for their continued and increased cooperation and support.

Besides concentrating on my battle against cancer, I have decided to devote my remaining energy to the Takagi School for Alternative Scientists (TSAS) and to compile a record of my achievements during my 60 years of life so that future generations will be able to learn something from it.

I have not given up the hope that eventually, I will conquer the cancer, return to CNIC and work with everyone again. In the beginning, I was uncertain as to whether this kind of message would be appropriate for publication, but I felt that by making this personal information open, I would be able to show my will and determination to continue living in the movement.

Jabiluka Mining

The controversial project backed by Japanese power utilities.

by Komei Hosokawa, Stop Jabiluka Campaign Japan

With investment from Japanese electric utilities and also from French and German nuclear industries, a large-scale uranium mining project in northern Australia is under way for possible start-up in 2001. Jabiluka, the project site in question, is situated within the World-Heritage-listed Kakadu National Park, 200km east of Darwin. It is also one of the areas officially recognized and demarcated by Australian Federal legislation as Aboriginal Lands. Land title holders in the Jabiluka area, the Mirrar Gundjehmi people, are unanimously and strongly opposed to the uranium mining. To protect their lands, they have refused all monetary and other kinds of inducements offered by Energy Resources of Australia (ERA), the mining company.

From its beginning in late 1970s, the project has been controversial. In addition to issues of aboriginal land rights and fear of radiation hazards faced by workers engaged in the mining and on-site milling of uranium ore (i.e. yellowcake processing) unavoidably produce a huge volume (an estimate of over 20 million tonnes) of tailings, or mud-like leaching waste. Tailings are a deadly blend of radioactive nuclides (such as t

radium-224, uranium-234, uranium-238, etc) and other toxic substances such as cadmium, arsenic, and sulfuric acids among others. Jabiluka is the world's third-biggest undeveloped uranium deposit; accordingly, the quantity of toxic waste to be produced at the site will be extraordinary.

The project was approved recently by the Resource and Energy Minister of Australia's current conservative coalition government. The validity of this approval is now being questioned, since an environmental impact assessment (EIA) is not yet complete, and ERA has so far failed to fulfill conditions set out by the Environment Minister. The Minister had stipulated in writing, among other things, that the project would be approved if and only if ERA scientifically demonstrated that the radioactive waste could be safely contained with no significant release (by



Protestors at the August Jabiluka protest camp in Australia.

environment for at least 10,000 years. The suggested figure is not surprising, given that uranium tailings remain significantly radioactive for over 240,000 years. It would be interesting to ask whether or not ERA or any other mining enterprise in the world would actually be able to meet this condition.

As a matter of fact, ERA has a horrible track record of discharging radioactive and heavy-metal contaminated water from the milling operations of the Ranger uranium mine, located 20km south of Jabiluka. The waste materials from the mine flow into the water system that runs through Mirrar communities and then into the Magela Plains. The seasonal wetland in Magela Plains, which is adjacent to the Jabiluka mining lease and downstream of Ranger, is an important conservation area registered under the Ramsar Convention. The area and other flood plains in Kakadu are home to such water bird species as snipes, sandpipers and plovers, all of which migrate to wetlands in Japan.

A technical meeting of the Ramsar Convention was held in Kushiro located in a northern part of Japan in March this year where it was reiterated that the active participation of indigenous peoples with their traditional wisdom is essential to wise and sustainable wetland management. In Jabiluka, indigenous landowners have always been neglected participation in the EIA studies carried out by the mining company.

Kakadu is one of the most popular tourist destinations in Australia. Numerous Japanese visitors to Kakadu National Park would be appalled to learn that a huge radioactive enterprise is going on behind the pristine landscape despite persistent Aboriginal opposition, repeated alerts from scientists, and more than 2,000 opposing submissions in response to ERA's public environmental report.

The assessment process is extremely opaque, mainly because ERA has changed its technical details regarding the mining proposal several times. First, the company reported that

they would mill the ore on site (i.e. in Jabiluka) and construct a dam to retain the milling waste (tailings). Then they asserted that their "preferred option" was to use the existing milling plant in Ranger and put the waste into the existing tailings dam in Ranger. Now their latest proposal again calls for a new milling facility at Jabiluka, but this time the company claims that tailings can be solidified by mixing them with cement. When the "new method" for waste disposal was rejected by the Environment Minister, ERA seemed prepared to claim that some new technology was available. It should be pointed out that the only valid EIA is the evaluation used to judge the original proposal.

Since all Australian uranium is exported overseas, the Jabiluka problem has invited international concern. In January 1998, the European Parliament passed a resolution asking the Australian government to halt the Jabiluka project, respect the human rights of indigenous people, and to conserve the World Heritage values of Kakadu. In May, coordinated protest actions took place in countries that are likely to import the Jabiluka product, namely, Korea, Japan (Tokyo and Osaka), UK, USA, Germany and Belgium among others.

Three Japanese utilities - Kansai, Shikoku and Kyushu Electric Power Companies - are investing in ERA. They seem to be trying to keep their profile as low as possible on this issue. Spokespersons from Kansai Electric Power Co. (KEPCO) have repeatedly claimed that the Jabiluka controversy is an Australian domestic issue and that they are nothing more than a partial shareholder. Presumably, however, KEPCO will be the world's top customer of Jabiluka uranium if it is dug out and processed. In other words, the Jabiluka mining operation cannot proceed without the commitment of the Japanese utilities.

In Australia, over 10,000 people have participated in Stop Jabiluka rallies in major cities and hundreds of protesters have joined the blockade camp in Jabiluka since March

1998. There have been more than 400 arrests as a result of nonviolent actions around the construction site. For both proponents and opponents, Jabiluka is an important test case, as over 20 uranium projects are awaiting government approval in the country. The list includes another ore body in Kakadu, namely the Koongarra mineral lease held by the French nuclear developer COGEMA.

Since an early federal election has just been called, the matter is becoming a complex political issue. The Australian Labor Party (ALP), the country's opposition party, asserts that if the Party wins the October general election, and if Jabiluka's approval process is not finalized by that time, they will veto the export licenses required for exporting Jabiluka uranium. ERA, on the other hand, claims that they have already signed sales contracts with overseas utilities, and warn that if an ALP government dares to veto the project, they will sue the government demanding huge compensation.

Earlier this year, after ERA had started construction at Jabiluka while leaving the EIA procedure unfinished, the Mirrar people and Australian conservation groups successfully lobbied with the UNESCO's World Heritage Convention secretariat in Paris. It

was decided in June that an unusually high-ranking inspection team, including the chairman of the World Heritage Commission (WIC) and a representative of the Geneva-based World Conservation Union (IUCN), would visit Kakadu in October. It was also decided that an evaluation report should be tabled at the WIC annual conference to be held in Kyoto in December this year.

A "Stop Jabiluka Campaign Japan" was launched in November 1997. Since then a number of anti-nuclear groups and concerned citizens have taken part in a variety of protest activities: a letter/fax writing campaign, various awareness raising activities, rallies in front of the Australian embassy, and protest actions targetting KEPCO. The campaigners have also prepared a Japanese version of David Bradbury's electrifying documentary film "Jabiluka". The coming WIC Kyoto conference is expected to be a favourable opportunity for further awareness raising activities especially when linked with the visit of a Mirrar delegation to Kyoto for further lobbying.

The Mirrar people's view on the matter is concisely presented in their website: <http://www.green.net.au/gundjehmi/jab12.htm>.



Protestors gathered in front of the Australian Embassy in Japan in May.

Go to the following websites for updates and backgrounders:

<http://www.jabiluka.net/>

<http://home.vicnet.net.au/~seaus>

<http://www.peg.apc.org/~uran4.htm>

For news on Japanese campaign, contact Dr. K. Hosokawa at Fax +81-952-8709 or Email <hosokawk@cc.saga-u.jp>.

Keiichi Hosokawa currently teaches social anthropology and environmental sociology at the University of Saga, Japan. He is a graduate of Kyoto University and has gained Ph.D. from the Australian National University.

This is the complete version of the appeal which appeared in the last edition of NIT.

Appeal from Scientists in Japan to the Scientists and Citizens of the World

Charging Scientists with Moral Responsibility for the New Crisis in Nuclear Proliferation.

We, the undersigned, are eighteen natural scientists working in various fields from Japan, a nation which itself has experienced nuclear attack. Upon learning of the nuclear tests conducted by India and Pakistan in May 1998, our reaction was one of tremendous sorrow, anger, and frustration. These tests have increased the risk of nuclear war to a new and ominous level. They have drastically lowered the barriers to the possession and testing of nuclear weapons, creating a dangerous environment in which nuclear weapons may be put to use anywhere in the world at any time. It is with an acute and unprecedented sense of crisis that we, as scientists, issue this appeal to scientists and citizens throughout the world on this, the fifty-third anniversary of the first atomic bombings.

With the end of the Cold War, a period during which the United States and the former Soviet Union threatened each other with massive stockpiles of nuclear weapons, global concern about the nuclear threat quickly diminished. People understandably assumed that nuclear disarmament would soon follow. We believe that this very slackening of the tension and vigilance forced upon the world's citizens by the Cold War has led to the present crisis. We are appalled by the dearth of protests raised against the recent nuclear tests by India and Pakistan, for it is our conviction that nuclear proliferation cannot be prevented through governance by the world's superpowers, but only by the efforts of citizens and scientists around the globe.

Despite the presence of conditions conducive to a drastic reduction of nuclear arms, the globalization of capitalism has been accompanied by intensified ethnic strife and a heightened risk of nuclear proliferation, with a growing likelihood that nuclear weapons will someday be employed in regional disputes.

Now, more than ever, it is crucial that we reexamine the true implications of nuclear armament. Developed for the purpose of indiscriminately slaughtering many people at once, these weapons are unequalled in their brutality. The atomic bombs that were dropped on two Japanese cities did not distinguish among their victims: they killed, for example, infants and the elderly, workers and schoolchildren, armed soldiers and unarmed students, Japanese and non-Japanese alike. Human beings vanished without a trace, turned in an instant to steam, charcoal, or ash. Radioactivity doomed most of the initial survivors to a lingering, painful death. Fifty years later, many of the surviving victims of those first atomic blasts still suffer. Nuclear bombs are not merely weapons of mass destruction, a logical extension of conventional arms: they are hideous, barbaric devices that must never be used again.

Modern science, ostensibly the fruit of human wisdom, is deeply implicated in the production of nuclear weaponry. We believe that scientists who have participated in nuclear arms development bear a heavy moral responsibility for their work, and are in fact nothing less than accessories to a crime against humanity. Loyalty to one's nation, race, or religion is no excuse for denying this responsibility, which all scientists everywhere must recognize and accept anew.

The people of Hiroshima and Nagasaki learned, at tremendous cost, that humanity cannot coexist with nuclear weapons, and they have conveyed this lesson to the rest of the world for the past fifty years. Sadly, the world at large has yet to accept the truth of their message. Today we appeal with

renewed urgency to the scientists and citizens of the world to join us in resuming the battle against the culture of nuclear weaponry.

1 To the Governments of India and Pakistan:

We view the nuclear tests conducted by India as a gross betrayal of the position that India itself has taken in denouncing the hypocritical and discriminatory policies of the Nuclear Non-Proliferation Treaty (NPT) regime established by the declared nuclear states.

In criticizing the special privileges enjoyed by the nuclear states while developing nuclear weapons itself and thus seeking to acquire those same privileges, India not only fails to solve the problem, but actively reinforces the same discriminatory regime. The development of nuclear weapons inevitably encourages other nations with this capability to follow suit, as India's neighbor Pakistan has now done.

The recent nuclear tests by India and Pakistan have raised the threat of nuclear war to an unprecedented level. Both governments must cease this foolish arms race and renounce the path to nuclear statehood immediately. This is the only moral choice, one that will increase the prestige of both nations, not reduce it. We are greatly encouraged by the presence in both countries of significant numbers of scientists and other citizens who oppose these nuclear tests. To them we extend a hand of friendship across national borders and affirm our solidarity with their acts of conscience.

2 To the Five Nuclear States:

We believe that the recent nuclear tests have conclusively demonstrated the hypocrisy of the five declared nuclear states and the failure of the NPT status quo. The NPT is an inherently discriminatory treaty that does not have the abolition of nuclear arms as its objective. Nor have the declared nuclear states kept their pledge to reduce nuclear arms as stipulated by the treaty. On the contrary, some of these nations are pursuing the development of such new nuclear technologies as subcritical testing, betraying not merely their lack of enthusiasm for halting nuclear weapons development, but their intention to develop even more sophisticated nuclear weapons through deceptive methods. The actions of the nuclear club thus pose a challenge to humanity at large.

With the bankruptcy of the NPT regime now more apparent than ever, it is imperative that the five nuclear states acknowledge their own hypocrisy. Our goal can no longer be the reinforcement of the nuclear status quo as maintained by the declared nuclear powers. Instead, these nations must abandon the privileged status they have enjoyed until now and embark on a systematic and comprehensive arms reduction program that aims for the complete abolition of nuclear weapons.

3 The Failure of Nuclear Deterrence

We unequivocally reject the "nuclear deterrence" rationale for the possession of nuclear arms by India and Pakistan.

The logic of nuclear deterrence has been used by both India and Pakistan to justify their acquisition of nuclear arms. It is based on this logic that the leadership of Pakistan has said "We don't want to be another Hiroshima or Nagasaki." Such a defense is abhorrent and utterly false in its assumptions. It perversely exploits the suffering of the people of Hiroshima and Nagasaki as an argument for nuclear development and ultimately for the extinction of the human race. We regard this comment as an unparalleled insult to the victims of nuclear war and to their unrelenting pleas for nuclear disarmament over the past half century. As a rationale for nuclear testing it is utterly unacceptable.

The invalidity of the "nuclear deterrence" approach as a means of preventing nuclear arms development is now obvious. We must not forget that nuclear deterrence is predicated on the cruel logic of holding hostage the entire populations of hypothetical enemy states. Today, any college student with a basic knowledge of modern physics can manufacture an atomic bomb. In these circumstances, the development or acquisition of nuclear weapons is not a deterrent to anything, but simply an act of aggression. Now is the time for all nations to renounce any attempt to acquire nuclear weapons under the pretext of nuclear deterrence.

4 Toward a Nuclear-Free Civilization

Our nuclear civilization, built on the dream of liberating and harnessing the tremendous energy of the atomic nucleus, now seems more likely to visit a terrible calamity upon the human race and the natural environment, even if nuclear war per se is averted.

Scientific research has already established that technology capable of stopping the radioactivity produced by nuclear energy is beyond our grasp. The tragedy at Chernobyl is only one of many nuclear disasters that have created radioactivity victims all over the world. Meanwhile, nations continue to stockpile the deadly toxin plutonium, ostensibly to serve as the energy source of the future. But because plutonium can be easily converted to nuclear weapons use, such efforts have merely increased political tensions and the penchant for governmental secrecy while creating yet another threat to human survival. Nuclear technology is fundamentally violent and destructive in nature, a fact to which the cities of Hiroshima and Nagasaki bear tragic witness. Human efforts to control this technology have met only with failure, spawning nuclear victims and environmental contamination on a massive scale throughout the earth.

Civilian and military use of nuclear energy are merely two sides of a coin: the technology is the same. Humanity can ill afford any further delay in converting our nuclear civilization to a nuclear-free one. Not only must the world's scientists immediately cease their involvement with nuclear weapons development, they must mobilize their knowledge and their consciences for the battle to free humanity from the clutches of this nuclear culture.

5 Toward the Demilitarization of Science and Technology and a Global Revival of the Anti-Nuclear Movement

Until now, the proliferation of nuclear weapons has been obstructed primarily by the voluntary efforts of scientists and the vigilance of everyday citizens.

The willingness of scientists to prostitute themselves to the transient and selfish interests of their own particular nation or ethnic group cannot be tolerated. In their research and all other activities, scientists must adopt a rational and unwavering stance on behalf of the interests of the entire human race. They must cultivate within themselves a conscience that reflects the moral concerns of humanity. Furthermore, scientists must accept responsibility, as citizens of their community and of the world at large, for the consequences of their research and development. No other course is acceptable for those who purport to be the bearers of the wisdom of human civilization.

In retrospect it is clear that many developments in science and technology have been employed not to benefit human beings, but to kill them. Ever since Japan embarked on its systematic adoption of modern science, the scientists of our nation, too, have been culpable of active involvement in military science and technology. In issuing this statement we have no intention of ignoring our own nation's bitter legacy. Science and technology must be servants for the good of the entire human community, without regard for national boundaries. For this very reason, we must strive for the demilitarization of all science and technology.

Today we stand on the brink of a new abyss, a new crisis in nuclear proliferation. We call on the citizens of every nation to join hands with the scientific community — and at the same time, to monitor the scientific community - so that together we may exercise vigilance both within our respective countries and without. We must keep a watchful eye not only on our own governments, but those of the nuclear states; and we must join together in global solidarity to demilitarize science and technology and liberate ourselves from our nuclear culture.

August 6, 1998

Signed:

Ikuro Anzai (professor of Ritsumeikan University, Radiation Protection), Satoru Ikeuchi (professor of Nagoya University, Cosmophysics), Katsuhiko Ishibashi (professor of Kobe University, Seismology), Hiromichi Umabayashi (executive director of Peace Resources Cooperative, Material Science), Hiroshi Ezawa (professor of Gakushuin University, Physics), Kazuo Oike (professor of Kyoto University, Earth Science), Naoki Kachi (associate professor of Tokyo Metropolitan Univer-

sity, Plant Ecology), Rihito Kimura (professor of Waseda University, Bioethics), Yoichiro Kuroda (director of Tokyo Metropolitan Institute for Neuroscience, Neurobiology), Shoichiro Koide (emeritus professor of Tokyo University, Theoretical Physics), Michiji Konuma (professor of Musashi Institute of Technology, Physics), Chikara Sasaki (professor of Tokyo University, History of Science), Humitaka Sato (professor of Kyoto University, Physics), Jinzaburo Takagi (executive director of Citizens' Nuclear Information Center, Nuclear Chemistry), Toshiyuki Toyoda (emeritus professor of Nagoya University, Physics), Hiroyoshi Higuchi (professor of Tokyo University, Wildlife Biology), Tetsukazu Yahara (professor of Kyusyu University, Ecology), Fumiko Yonezawa (professor of Keio University, Theoretical Physics)

A Declaration to the Government of Japan

We, the undersigned, are deeply ashamed of our own government. On the one hand, the Japanese government issues appeals for nuclear arms reduction to other nations, citing Japan's experience with nuclear attack at Hiroshima and Nagasaki. Yet this same government shamelessly hides under the nuclear umbrella provided by the United States. For the past thirty years Japan has consistently abstained whenever the General Assembly of the United Nations voted on the abolition of nuclear arms. Now our government is stockpiling massive quantities of plutonium, an ingredient in nuclear weaponry that it claims will be used for peaceful purposes. Nor has it made any effort to respond in good faith to the concerns voiced by other nations over this program.

If those of us who seek the abolition of nuclear weapons are to convince people around the world of the sincerity of our intentions, the Japanese government must demonstrate its commitment to a non-nuclear course by adopting policies toward this end and acting on them. Japan must emerge from under the American nuclear umbrella; the government is deluding itself if it believes that this umbrella offers our nation any real protection. It must acknowledge that far from protecting us, the nuclear umbrella places us in grave danger. Japan must refuse to cooperate in any way with the nuclear strategies of other nations. Instead, it must redirect its efforts to the expansion of a nuclear-free zone around Japan and, ultimately, the achievement of a nuclear-free world. We demand this of the government of Japan.

August 6, 1998

Signed:

Ikuro Anzai (professor of Ritsumeikan University, Radiation Protection); Satoru Ikeuchi (professor of Nagoya University, Cosmophysics); Katsuhiko Ishibashi (professor of Kobe University, Seismology); Hiromichi Umabayashi (executive director of Peace Resources Cooperative, Material Science); Hiroshi Ezawa (professor of Gakushuin University, Physics); Kazuo Oike (professor of Kyoto University, Earth Science); Rihito Kimura (professor of Waseda University, Bioethics); Yoichiro Kuroda (director of Tokyo Metropolitan Institute for Neuroscience, Neurobiology); Shoichiro Koide (emeritus professor of Tokyo University, Theoretical Physics); Michiji Konuma (professor of Musashi Institute of Technology, Physics); Chikara Sasaki (professor of Tokyo University, History of Science); Humitaka Sato (professor of Kyoto University, Physics); Jinzaburo Takagi (executive director of Citizens' Nuclear Information Center, Nuclear Chemistry); Toshiyuki Toyoda (emeritus professor of Nagoya University, Physics); Hiroyoshi Higuchi (professor of Tokyo University, Wildlife Biology); Tetsukazu Yahara (professor of Kyusyu University, Ecology); Fumiko Yonezawa (professor of Keio University, Theoretical Physics)

* Anyone who agrees and wishes to join this appeal, please send your name to CNIC. Short messages are also welcome.

Anti-Nuke Who's Who

Takatoshi Yamazaki

Naturalist fighting for the livelihoods of the people.

by Makio Tashiro, Tsuruga-city, Fukui

Takatoshi Yamazaki is a seller of traditional Japanese paper in Imadate Town, a locale in Fukui Prefecture with the longest history of Japanese paper-making in the country. At the same time, he participates actively in movements for environmental conservation and opposition to nuclear power.

It was Yamazaki's encounter with Minamata disease while attending college that sparked his involvement in local campaigns against resort and coastal industry development, dam and airport construction issues, and nuclear power development. Half motivated by an intention of just having a good time, he set out to visit the village of Minamata with a college friend who had chosen Minamata as the subject of his graduation thesis. The extraordinary experience of visiting the homes of mercury poisoning victims one by one, and hearing their stories changed the subsequent direction of his life.

Yamazaki's two books, "Fukui's Japanese Black Bear and Nuclear Plants" and "Fukui's Japanese Golden Eagle and Nuclear Plants", are indictments of how such large-scale projects are proceeded under the name of "development" while destroying the livelihoods of the people who live in the effected areas. These books show trenchantly how people manage to live in the shadow of nuclear power plants.

In 1996, Yamazaki was elected to the Imadate town council, where he successfully persuaded the local government to store iodine tablets in the town hall building in preparation for a nuclear accident.



Takatoshi Yamazaki, determined to stop nuclear development in Fukui.

Fukui Prefecture has 15 nuclear plants, making the prefecture the place with the highest concentration of nuclear plants in the world.

Since the nuclear power plant Tsuruga 1 came on line in 1970, the prefecture has had a string of major accidents including radiation leaks, steam generator tube breaks, and the sodium leak and fire at the Monju fast-breeder reactor. Further, work is proceeding at a feverish pace to build additional reactors 3 and 4 at Tsuruga, implement the MOX utilization program, and restart Monju.

"I haven't found any effective means to combat this, but I can't just sit around twiddling my thumbs. We think a prefectural referendum should decide whether or not to restart Monju," says Yamazaki. To that end, he has started a campaign demanding the passage of an ordinance allowing for a referendum while also making preparations for such a popular vote.

Data: Significant Incidents at Nuclear Plants

(July - December, 1997)

Date	Plant	Short Description of Events
8 July	JRR-3 (JAERI)	Reactor manually shutdown due to leak of nitrogen gas for cooling sample materials.
11 July	Tokai II	Reactor manually shutdown due to oil leak from oil tank of emergency power supply equipment.
15 July	Kashiwazaki-Kariwa 7	Smoke rise at transformer of generator excitation control panel.
18 July	Kashiwazaki-Kariwa 7	Radioactive steam leak at pressure detector switch of steam heater pipe.
18 July	JMTR (JAERI)	Coolant leak from outlet pipe valve of main heat exchanger during inspection outage.
19 August	Kashiwazaki-Kariwa 1	Reactor power reduced due to primary coolant leak from reactor feed water pump outlet check valve.
26 August	Joyo (PNC)	Reactor automatically shutdown due to stoppage of power supply to plant caused by lighting at transmission line.
1 Sept.	Genkai 2	39 steam generator tubes found to be damaged during inspection outage.
2 Sept.	Fugen (PNC)	Tip part of incore power monitor found to be lost during inspection outage.
5 Sept.	Ikata 2	Fire at super dry air generator near main transformer outside.
24 Sept.	Ikata 1	Reactor power reduced due to leak of seawater into condenser caused by damage to condenser tubes.
25 Sept.	Ikata 2	Cracks found at control rod drive mechanisms housing welds during inspection outage.
3 Oct.	Ikata 2	64 steam generator tubes found to be damaged during inspection outage.
7 Oct.	Tsuruga 1	Reactor manually shutdown due to cracks found at control unit scram valve of control rod drive hydraulic system.
7 Oct.	Fugen (PNC)	2 workers exposed to high dose above regulation for one-day (1mSv) during fire extinguishers inspection in reactor auxiliary building.
9 Oct.	Tokai	Reactor power reduced due to leak of seawater into condenser caused by damage to condenser tubes.

(Continued to next page)

Data

Date	Plant	Short Description of Events
13 Oct.	Fukushima I-4	Cracks found at incore neutron flux monitor housing tube during inspection outage.
16 Oct.	Fugen (PNC)	About 2 tons of primary water leak at pressure tubes test during inspection outage.
24 Oct.	Tsuruga 1	Reactor manually shutdown due to control rod stuck at control rod drive system periodic test; swelling and cracks found at 2 control rods by 18 November.
28 Oct.	Kashiwazaki-Kariwa 4	Reactor manually shutdown due to detection of turbine steam adjustment valve switch malfunction during inspection outage.
29 Oct.	Tokai	Reactor power reduced due to steam leak at high pressure evaporator separation pipe of heat exchanger.
2 Nov.	Kashiwazaki-Kariwa 4	Reactor manually shutdown due to detection of turbine steam adjustment valve switch malfunction during inspection outage.
5 Nov.	Fugen (PNC)	Two workers exposed to radiation due to heavy water leak including tritium during transport of depleted heavy water to purification equipment.
18 Nov.	Tokai	Generator manually shutdown due to detection of electric discharge at turbine generator.
18 Nov.	Ohi 1	Cracks found at control rod drive mechanisms housing welds during inspection outage.
18 Nov.	Tanai 2	Leak of sea water into condenser found caused by damage to condenser tubes during inspection outage.
20 Nov.	Uranium enrichment research facility (JAERI)	Fire at uranium enrichment research laboratory; 20 low level radioactive waste paper buckets burned.
4 Dec.	Fukushima I-3	Cracks found at incore neutron flux monitor housing tube during inspection outage.
5 Dec.	Fukushima II-1	Reactor manually shutdown due to control rod stuck at control rod drive system periodic test; swelling and cracks found at 1 control rod by 15 December.
20 Dec.	Hamaoka 3	Reactor power reduced due to detection of malfunction at reactor feed water pump during inspection outage.
27 Dec.	Ohi 4	False alarm sound during incore neutron flux monitor adjustment.

Appeal for signature campaign

Plans are underway to start transporting by as early as next spring MOX fuel from England and France for use in light-water reactors located in Japan. We are initiating an international signature-gathering campaign that calls for cancellation of these plans. Write your name, organizational name (if any), city, state and country at the bottom of this page and send to CNIC.

Signatures gathered in the campaign will be presented to all Governments involved in planning such shipments.

Sponsors of the campaign: Japan Congress Against A- and H-Bombs (GENSUIKIN)
Citizens' Nuclear Information Center (CNIC)

Statement calling for the cancellation of the MOX fuel transport Plan

TO:

Prime Minister Keizo Obuchi, Japan
President Jacques Chirac, France
Prime Minister Tony Blair, UK
President William Clinton, USA

The Japanese plan to use plutonium, a nuclear-weapons usable material, as fuel in nuclear reactors is entering a new phase. The sodium-leak accident at the Monju fast breeder reactor in December 1995 has forced planners of the Japanese breeder reactor back to the drawing boards. The accident has also given greater impetus to efforts in developing ways to use plutonium in conventional light-water reactors (LWRs). The Japanese government is planning to use plutonium separated at reprocessing facilities abroad, even though the consequences are that LWRs will operate less efficiently and economically, and also more dangerously than what can be achieved by using low-enriched uranium fuel, a fuel unusable for weapons.

According to the transport plan, Kansai Electric Power Co. (KEPCO) and Tokyo Electric Power Co. (TEPCO) have contracted with BNFL in UK and COMOX in France for the manufacture of MOX fuel. This commercial arrangement was done without securing the consent of the prefectural governments where the power plants are located. The electric companies plan to have MOX fuel transported to Japan as early as next spring. MOX fuel will be loaded in Unit 4 of Takahama nuclear power plant in Fukui prefecture, and Unit 3 of Fukushima-I nuclear power plant. On February 23, KEPCO submitted a request for preliminary consent to both Fukui prefecture and Takahama town. On August 18, TEPCO also submitted a similar request to Fukushima prefecture, Ohkuma town, and Futaba town. Submission of such requests is required by safety agreements between the power companies and the local governments.

Criticism directed toward Japan's plan to use plutonium is growing day by day as the world retreats from the use of plutonium because of its potential for weapons use and in recognition that as a fuel it is a liability rather than an asset. Concerns exist not only about the safety of reactors but also with respect to the possibility that Japan will develop nuclear weapons. As the risk of nuclear proliferation grows due to nuclear tests conducted by India and Pakistan, criticism will grow regarding Japanese plans for reprocessing and use of MOX fuel.

The International MOX Assessment, a team of researchers convened by the Citizens' Nuclear Information Center, concludes that "there is no reasonable justification or identifiable social benefit in the continuation of plutonium separation and the launch of a MOX fuel program for light water reactors."

A national signature collection campaign against reprocessing and the use of plutonium in light water reactors has succeeded in gathering more than 1,070,000 signatures since the spring of 1997. The signed statement that calls for the cancellation of the plan to use plutonium in Japan was submitted to the Japanese government. A strong movement also exists against the use of plutonium in LWRs in local areas where the plan is set.

There are also deep concerns about the actual sea transport of MOX from UK and France, in addition to problems directly associated with the use of plutonium in LWRs. The safety standard established for type B casks used for transporting MOX fuel from the UK and France regarded not stringent enough for sea shipments traversing the seas of the world. The standard simply requires the casks to be able to endure immersion for 8 hours at the depth of 15 meters, and survive the impact of 9-meter drop onto an unyielding surface followed by a fire of 800 degrees Celsius for 30 minutes.

Dozens of nations along the transport routes have protested strongly the scheduled shipments, saying that sufficient assessment has not been made of the consequences of possible accidents and terrorist attacks.

For the above reasons, we oppose the transport of Japanese MOX fuel. We urge everyone to direct their respective governments to put an end to the dangerous plutonium-use programs that they jointly sponsor and promote.

Signed,

NEWS WATCH

Request for Approval to Build Unit 3 at Tomari Plant Submitted

Hokkaido Electric Power Co. officially requested Hokkaido Prefecture, Tomari-mura and three neighboring municipalities on July 29 to approve plans to build an additional reactor, unit 3 (PWR 912 MW), at Tomari nuclear power plant. In response to this, the Prefectural Government has shown an unusually cautious attitude, stating that there is little necessity for such a plan in light of the recent balances between the demand/supply of electric power.

Behind this official attitude exists a widely-held public view that the issue should be put to a referendum. The town assemblies of Tomari-mura and three neighboring towns that had once invited the utility to build nuclear plants, will not do so in the case of unit 3. This is because construction of the other two plants has not led to community development, and people in neighboring towns and villages are concerned about the ill-effect of nuclear power on tourism and prices of farm products.

Spent Fuel Shipped from Shika Nuclear Plant

On July 15 Hokuriku Electric Power Co. shipped 84 spent fuel assemblies or 12 tHM discharged from Shika 1 (BWR, 540 MW) to reprocessing plants at Sellafield in Britain. This was the last shipment of spent fuel from Japanese light water reactors to overseas reprocessing plants. The remaining spent fuel to be transported to overseas reprocessing plants will be from decommissioned gas-cooled reactor at Tokai nuclear plant.

About 400 labor union members and citizens from Ishikawa Prefecture held a protest rally against the shipment and demanded that the power company "not impose nuclear waste on foreign countries."

Plan to Construct Intermediate Storage Facility

Kansai Electric Power Co. and Japan Atomic Power Co. (JAPCO) on July 7 made the first announcement in Japan regarding their plan to jointly construct intermediate storage facility for spent nuclear fuel. According to the plan, they will decide on the facility site by the end of FY2000 and begin operations by FY2010. The plan was made in response to a strong request by the Fukui Prefectural Government. With this announcement, the power companies have been given permission by the Prefecture to store more used spent fuel at each of their plant sites until the time the intermediate storage facility has been completed.

JAPCO which also plans to construct Tsuruga 3 and 4 (APWR, 1300 MW-class each) announced the plan for the storage facilities so as to show respect to the Fukui Government. The Government has been cautious in agreeing to additional nuclear power plant construction after receiving petitions of 210,000 citizens in opposition.

Active Fault Found Near Shimane Nuclear Plant

Chugoku Electric Power Co. which is planning to construct Shimane 3 (ABWR, 1373 MW) announced on August 17 that it had confirmed the existence of an active fault in a locale only 2.5 km away from the nuclear plant. The fault was found during a seismic survey the utility reluctantly carried out in response to a demand made by a protest campaign against new reactor construction. The company, however, emphasized that the length of the fault is merely about 8 km; the entire length is believed to be 26 km. By making only a part of the fault subject to the survey, the

power company claims that there is no problem in the construction of the reactor.

Participants in the campaign against the plan are now demanding that the company make public the data and reasons for choosing to make only 8 km of the entire active fault subject to the survey and to conduct a detailed survey of the whole area around the fault. Despite the participants' strong concern over the additional reactor, they are now focused more on considering legal action that might be taken for suspension of Shimane 1 and 2 (BWR, 460 MW, 820 MW) before questioning the pros and cons of constructing the additional plant.

Toshiba, Hitachi, and GE Consider a Joint Enterprise

Toshiba, Hitachi, and America's General Electric are currently seeking to strengthen cooperation among their nuclear equipment divisions. It is possible that such efforts may lead to a plan that involves merging the three companies' divisions into a new company.

On August 18 Kyodo News in Japan ran such a story based on information gathered from Toshiba executives. In both Japan and the U.S. the three companies have no hope of getting more domestic orders and are thus being forced to take some tough restructuring measures that involve scaling down their nuclear power divisions and moving employees to other divisions. For these reasons, the three companies are seeking to streamline themselves and perhaps jointly develop new markets with sale sights focused mainly on the China market.

strengthen cooperation in sales and engineering through a joint enterprise, the executives suggest the possibility that cooperation may go beyond such partial initiatives. Toshiba and Hitachi set up an Asia ABWR promotion Organization on January 1, 1997, and are already jointly developing markets.

First Permit for a New Nuclear Plant in 10 Years

The Minister of International Trade and Industry granted on August 31 a permit to Tohoku Electric Power Co. to build the Higashidori 1 nuclear power plant (BWR 1100 MW) which is planned for Higashidori village in Aomori Prefecture. It had been a decade since the last such permit was granted. Tohoku Electric will begin construction this December and aims to bring the plant on line in July 2005.

Despite this being a "new siting," the plan has been around a long time: it was in 1965, before nuclear plants were really operating in Japan, that the village council was asked to approve construction. Almost all the land was also obtained early on by two electric power companies. At first the plan for Higashidori were extremely ambitious calling for joint development by Tohoku Electric and Tokyo Electric where each utility would construct 10 reactors. Now the plan is for only two reactors each, and Tokyo Electric is not very enthusiastic. The reason is apparently that it would cost a huge sum of 3 trillion yen to build transmission lines from Higashidori to Tokyo, which makes little economic sense.

Although they are exploring ways to

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Citizens' Nuclear Information Center
3F Kotobuki Bldg., 1-58-15 Higashi-nakano, Nakano-ku, Tokyo 164-0003 JAPAN
Tel: 81-3-5330-9520; Fax: 81-3-5330-9530