On Dec. 24th, 2003, Tohoku Electric Power Company officially announced that it was abandoning its plan to build the Maki Nuclear Power Plant in Maki Town, Niigata Prefecture. According to the company the proposal for the construction dates back 32 years, but if one counts from the time when, in order to disguise its plan to build a nuclear power plant, the company bought land under the pretense of building a health resort, the project is actually 40 years old. However, in the end the resolute resistance of the local people against the nuclear power plant prevailed.

This is the first time that a construction plan has been abandoned for a nuclear power station which was included in the government’s Basic

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Plan for Electric Power Development and which had already commenced the safety screening process. In the same month, on December 5th, the Suzu Nuclear Power Plant plan (Suzu City, Ishikawa Prefecture), which has been pursued jointly by Kansai, Chubu and Hokuriku Electric Power Companies, was declared “frozen” by the three companies involved. In reality this means that the project has been abandoned. This is the first time that any electric power company has abandoned plans on the basis of its own management decision.

That’s two “firsts” in a row. What these cases have in common is that the resistance of the local people for around thirty years prevented the companies from constructing the plants, until times and circumstances combined to encourage them to abandon their plans. In the end, their long struggles bore fruit. It is just as Yohsaku Fuji, President and Director of Kansai Electric Power Company (KEPCO), said regarding the Suzu Power Plant plan: “The resistance movement was very strong. Time was moving on, but we hadn’t even begun a location assessment. During that time energy demand has become sluggish. Price competition has become fiercer as a result of liberalization. The circumstances have changed completely.” The same fate befell the construction plan for the Maki Power Plant, which was abandoned with the safety screening process still on hold.

The same “first time” situation is about to visit the construction plans for other nuclear power plants that have been blocked in the same way. This is the beginning of the end for them too. The Mayor of Mihama Town (Fukui Prefecture) announced on December 9th the postponement of a decision regarding a petition presented to the Town Council in the Fall of 2001 requesting the extension of the Mihama Power Plant. As reasons, the Mayor cited the circumstances facing KEPCO, namely the downward correction for electricity demand estimates and cost competition following the liberalization of the electricity market.

Continuous opposition stopped construction of nuclear power stations

The revocation of the plans for the Maki Power Plant is a direct result of a decision on December 18 by the Supreme Court to reject a lawsuit by the proponents of nuclear power. As a result of this decision, Tohoku Electric was unable to procure the land adjacent to the land where the core of Reactor Unit 1 was to be built. Tohoku Electric claims to be utterly dissatisfied with this “disturbing decision”. However the Denki Shimbun newspaper, which reported about the court decision in its December 22nd issue, anticipating the official decision of Tohoku Electric wrote, “Unlike the era of constant progress, during this era of liberalization withdrawal is one possible strategy”. The decision of the Supreme Court was a good excuse for withdrawal.

The land which Tohoku Electric tried unsuccessfully to buy originally belonged to the town, but the Mayor sold it to members of an anti-nuclear group. His action was prompted by Japan’s first ever local referendum regarding the location of a nuclear power plant, conducted on August 4th, 1996. The turnout reached 88% and 61% of the valid vote cast (54% of all eligible voters) opposed the nuclear power plant.

In spite of the criticism from the proponents of nuclear power that the Mayor sold it to members of an anti-nuclear group. His action was prompted by Japan’s first ever local referendum regarding the location of a nuclear power plant, conducted on August 4th, 1996. The turnout reached 88% and 61% of the valid vote cast (54% of all eligible voters) opposed the nuclear power plant.

The thing which made the referendum possible in the first place was another piece of land - not in this case land owned by the local government, but land collectively owned by opponents to the nuclear plant. This piece of land was located on the coast on the proposed site of Reactor no.3. This became a lever for the opposition movement, because it halted the safety screening process.

When the former Mayor, a proponent of nuclear power, was about to sell the land in question to Tohoku Electric, the women of the town organized a hunger strike in the entrance hall of the Town Hall and workers organized a sit-in in front of the Assembly Hall, so that the council meeting had to be cancelled. If just one element in this
30-year plus struggle had been missing, instead of the plan being abandoned, the nuclear power station might be operating today.

**Take the next step confidently**

The collapse of the plans for the Suzu and Maki power plants teaches us again the importance of keeping the campaign going and never giving up. Of course, the nuclear power problem is far from over. Nationwide there are more than 50 reactors in operation and the government is determined to implement its nuclear fuel cycle policy no matter what. Nevertheless, this experience clearly shows that phasing out nuclear power is not “an unrealistic dream”. The detection of the ‘trouble concealment’ at Tokyo Electric Power Company (TEPCO) led to the suspension of the operation of one nuclear reactor after the other. In the wake of this scandal the problem of the insecurity of nuclear power as a source of energy supply was raised again last summer. Moreover the blackout in North America showed that a high dependency on nuclear power prolongs blackouts.

In an article in the December 8th issue of Denki Shimbun, which refers to the “freezing” of the construction plan for the Suzu Power Plant, a staff member of the Agency of Natural Resources and Energy is quoted as saying, “The notion that the construction of power plants is connected to stable energy supply has changed”. And the Secretary to the Minister of Economy, Trade and Industry made the following comment: “There is a shift from increasing the supply and supplementing the quantity to lifting the quality of demand and supply.”

Evidently the times and circumstances have changed. Let’s take the next step confidently.

(By Baku Nishio)

**Suzu and Maki Nuclear Power Plant Datelines**

<table>
<thead>
<tr>
<th>Year</th>
<th>Maki</th>
<th>Suzu</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>Purchase of land for health resort begins</td>
<td></td>
<td>Japan’s first commercial reactor (TEPCO GCR) goes critical</td>
</tr>
<tr>
<td>1969</td>
<td>Newspaper article reveals nuclear power plant plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>Tohoku Electric officially applies to Maki Town</td>
<td>Power companies start maneuvering</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Local government requests central government for site consideration</td>
<td>First national anti-nuclear energy gathering held in Kyoto</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td>Kansui, Chubu and Tohoku Electric Power Co. announce joint site proposal</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>Included in the government’s Basic Plan for Electric Power Development</td>
<td></td>
<td>Three Mile Island accident</td>
</tr>
<tr>
<td>1981</td>
<td>Tohoku Electric applies to government for permission to construct reactor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>Opponents unable to acquire land. Tohoku Electric applies for suspension of safety screening, advising government of changed siting plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td>Chernobyl accident</td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td>Citizens stage 3 week action to block City Hall in response to site inspection by KEPCO. Inspection stopped.</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td></td>
<td></td>
<td>Growth in electricity demand begins to slow down</td>
</tr>
<tr>
<td>1999</td>
<td>Mayor sells town land to members of Citizens’ Referendum Action Committee</td>
<td></td>
<td>JCO criticality accident</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td>Governor of Mie Prefecture cancels Ashihama Nuclear Power Plant plan. Liberalization of electricity sales to large scale consumers.</td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
<td>Overwhelming rejection of nuclear power plant in citizens’ referendum in Miyama Town, Mie Prefecture</td>
</tr>
<tr>
<td>2003</td>
<td>Nuclear power plant plan abandoned</td>
<td>Nuclear power plant plan abandoned</td>
<td></td>
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Recent Developments in Nuclear Fusion Research

1. Introduction

Even now, the level of public awareness in Japan of ‘nuclear fusion energy’ is very low. However the government and people in the field are continuing their steady behind-the-scenes moves to make sure that their efforts to promote nuclear fusion succeed. This they do instead of providing accurate information to the public. This article reports on some important details that have come to light recently.

2. Their strategy: priority is ‘S’

On 17 October the Council for Science and Technology Policy, Cabinet Office announced the 2004 Budget priorities for science and technology. These relate to the major policies included in the draft estimates and are ranked in four levels based on the level of priority. The Council for Science and Technology Policy was established in 2001 to complement the Prime Minister and Cabinet. Its role is to take a broad view of Japan’s overall science and technology and to undertake comprehensive planning and coordination from a position one level above the ministries. Consequently, rankings assigned here hold a great deal of significance for researchers in related fields.

This time it says of the Ministry of Education, Culture, Sports, Science and Technology’s ITER (International Thermonuclear Experimental Reactor) that “nuclear fusion is of great significance as a means of securing future energy sources and that it is a long-term research issue”. It assigns it the highest ranking, ‘S’. The amount demanded is 858.8 billion yen, a huge increase compared to the previous year’s budget of 55 billion yen. ‘S’ is defined as ‘specially important policies which should be vigorously implemented’. This time they represent 16% of all items.

- Developments regarding the siting of ITER

However, it was no easy task for proponents of nuclear fusion to obtain an ‘S’ ranking. The fact is that in January the Nuclear Fusion Working Group, located in the Ministry of Education, Culture, Sports, Science and Technology (MEXT), intending to site ITER in Japan, put together a report stating that national research into nuclear fusion should be prioritized. This was reflected in the 2004 draft budget estimates. The Report says that ITER, JT-60 (Japan Atomic Energy Research Institute), LHD (National Institute for Fusion Science) and Gekkou-XII (Osaka University) should all be prioritized and that all other university research facilities should be eliminated. It’s fair to say that they have begun to genuinely think about ITER, but with big science, research loses its flexibility and original purity of spirit.

Regarding the ITER project, at the end of January this year the US returned once again to the project and in June South Korea announced that it would participate. (Current participants are the US, South Korea, China, the EU, Canada and Japan.) This was good news for the participants, because the burden of the construction costs decreased as a result.

Those who put their names forward to host the facility were Japan, Canada and the EU, but MEXT’s Nuclear Fusion Development Office made a prediction (Tokyo Shimbun 4 November). Judging from the amount of funds contributed, MEXT concluded that Canada wasn’t a serious contender, so it was down to a one-on-one battle with the EU. At the time, the EU had not yet decided between a proposed site in France and another in Spain. MEXT predicted that if the EU chose France the US would support Japan, due to the fact that France opposed
the war on Iraq, but if it chose Spain, which consistently supported the war, the US could go either way. As it turns out, the EU chose the Cadarache site in France.

A ministerial level conference was held on December 20 and 21 (Japan Standard Time) to decide the construction cost of ITER. According to media reports, a decision was deferred because Russia and China supported the EU, whereas the United States and South Korea backed Japan. MEXT’s prediction wasn’t far from the mark it would seem. Those supporting the EU pointed out that Japan has high labor costs and electricity prices, and that earthquakes are also a cause for concern.

The next conference is planned for February. Japan has suggested that it might be willing to consider a compromise in which the project would be shared between the two countries. The actual reactor could be located in one country, while an information center could be located in the other. Whichever way the decision goes, however, it is clear that the ITER project is not only an energy problem. It is a political problem.

- Implementation of nuclear fusion and adapting it for a hydrogen energy society

The government is also making preparations for a time after ITER. This can be seen in the Proposal to Accelerate the Implementation of Nuclear Fusion (figure 1). Their idea is that, in order to prevent global warming and at the same time contribute to economic development, genuine market investment by, at the latest, 2050 is desirable.

In other words, even before they have conducted any real ITER experiments, they are already beginning to plan for the next phase reactor. Moreover they are trying to conflate that reactor into the prototype and the demon-

![Figure 1. Proposal to Accelerate the Implementation of Nuclear Fusion](image-url)
stration reactors. The physical behavior of the burning plasma that is created by ITER is completely unclear, so any plan to begin design at this stage is very rash. What they are trying to do is to generate electricity as early as possible and get some public recognition for it. However, based on the size of ITER, a demonstration reactor would need to have a power output of 2-3GW, 4-6 times that of ITER.

These aren’t the only plans to bring nuclear fusion into society. Studies about adapting nuclear fusion for a hydrogen-based society are also beginning. There has been research into making hydrogen from nuclear fusion since the 1970s. However now, as moves towards a hydrogen energy society centered on fuel cells gather strength, these investigations are being recommenced. If it really proceeds in this direction it will become a formidable plan indeed.

The reason for this is that a true hydrogen market will be larger than the electricity market (because it can be applied to transport as well as electricity); it will be a global market (light water reactor policies are different in each country); and there is the possibility that it will require a centralized heat source (in that case electrolysis using renewable energy would be insufficient). Of course, this is assuming that a hydrogen-based society really begins and that nuclear fusion is implemented.

3. The hard reality: not everything is plain sailing for promoters.

In March, Masatoshi Koshiba, a Nobel Physics Prize laureate, and Akira Hasegawa, former Chairperson of the Division of Plasma Physics in the American Physical Society, submitted a joint petition to the Prime Minister and related Ministers calling for reconsideration of the proposal to site the ITER in Japan. According to them, as much as 2kg of the hazardous substance tritium will be stored as fuel and 40,000 tons of radioactive waste will be generated, so even if experiments are successful, it won’t be accepted by the public.

Indeed, even the manufacturers don’t seem to be very enthusiastic about nuclear fusion. One person from Hitachi’s nuclear energy project section expressed an honest view at the Cabinet Committee to Investigate Basic Issues Associated with Nuclear Fusion Research and Development. He/She would cooperate as much as possible with development being promoted as part of a national project, but isn’t considering it as a future business area. The reasons given for this were that, compared with light water reactors, reactor structure and control of the power output of the fusion reactor being envisaged would be more complex, the materials to be used and the surrounding equipment would be more expensive and more various, and power would be necessary for the facility and for start-up power. As if there weren’t enough problems controlling light water reactors, there will be even more problems with fusion reactors.

Another big problem is that even though the level of radiation in the reactor core will be very high, machinery inside the reactor core will have to be changed regularly. Exchange of machinery by remote control is envisaged. However hardly any technological development for this has been undertaken. If a problem arises, there will be no alternative but for somebody to enter that dangerous place. There is no way that nuclear fusion can be called the crystallization of leading-edge technology.

4. Final remarks

In contrast with the past, the proponents of nuclear fusion are to some extent attempting to come to grips with the social circumstances. Until now they have taken the optimistic view that if they simply built a nuclear fusion reactor, society would accept it. Now they are sensing the need to make an effort to gain the acceptance of society. Even greater vigilance will be necessary in future.

(Tadahiro Katsuta, CNIC)
Open Debate Held re Fuel Reprocessing

The chemical tests at Rokkasho have been completed and the uranium testing phase is scheduled to begin in April. However, even among the proponents of nuclear energy, calls for a moratorium have emerged. For example, the Young Nuclear Engineers Study Group is one such group. They propose a two year moratorium, during which time an overall assessment of the policy should be conducted. Their opinion was scheduled to appear in the trade journal Genshiryoku Eye (Nuclear Viewpoints), but the paper rejected the article.

Against this background, having organized a ‘One Million Signature Campaign’, the Japan Congress Against A- and H-Bombs (Gensuikin) and the Citizens’ Nuclear Information Center (CNIC), both of which assert the need to rethink the nuclear fuel cycle policy, succeeded in pressuring the Atomic Energy Commission (AEC) into organizing a symposium in Aomori City on October 11th under the title Open Debate: Rethinking Reprocessing and the Nuclear Fuel Cycle. The debate was co-hosted by these three organizations.

It was the first time that such an event had been organized in this manner. Drawing about 460 participants the event received widespread attention. The participants from the government side were: Mr. Tetsuya Endo (AEC Chairperson’s Representative), Ms. Noriko Kimoto, Mr. Tetsuo Takeuchi, Mr. Akio Morishima (all Commission members) and Mr. Shunsuke Kondo - five participants in all.

From CNIC and Gensuikin were Mr. Koji Asaishi (lawyer), Ms Miwako Ogiso (Fukui Citizens’ Congress Against Nuclear Power), Mr. Koji Hasegawa (Professor at Tohoku University) and Mr. Baku Nishio (CNIC) - altogether four participants. The discussion was chaired by Mr. Hiroyuki Torii from the Tokyo Institute of Technology.

A brief impression of the debate would be that, although it was an open debate, AEC didn’t give much away. They were unable to give up front responses to questions that arose during the debate, such as the problem of the cost and the issue of plutonium supply and demand. Getting through the debate with bland statements, presenting only the semblance of ‘direct discussion with the citizens’, is a pretty meaningless exercise. No doubt the audience picked this up too.

The arguments presented by each side regarding some of the main points of discussion are summarized below.

The same tired old arguments in favor

AEC’s explanation was presented by Commissioner Morishima. The basic gist was that by 2030 energy demand will rise to 160% of what it is today. This is because of increased demand from China and India.

According to this argument, it follows that, from the perspective of energy security, nuclear
energy must be pursued. Nuclear energy represents 13% of Japan’s energy supply. Moreover, under the Kyoto Protocol Japan has undertaken to reduce its CO2 emissions by 6% compared to the 1990 level. Expansion of nuclear energy is factored into this figure. New sources of energy are important, but they aren’t a replacement for nuclear energy.

By reprocessing spent fuel, the plutonium extracted can be used and energy consumption reduced. The cycle is incomplete for the time being, but the intention is to use the plutonium in light water reactors. Even so, uranium consumption can be reduced to some extent. Also, by reprocessing, the quantity of high level waste can be reduced. It’s a little expensive, but if in the long term uranium prices rise, this situation will change.

Critique of rigid reprocessing policy

Baku Nishio of CNIC and Aomori lawyer Koji Asaishi gave presentations in response.

The gist of Mr Nishio’s presentation was that AEC’s reprocessing policy is rigid in regard to its direct connection to the objective of developing a Fast Breeder Reactor Cycle. There is absolutely no rush to make Rokkasho operational. There is no prospect of turning the Fast Breeder Reactor Cycle into a reality, so a far more sound energy policy would be, instead of pouring money down that drain, to develop existing energy saving and distributed energy technologies.

The more the nuclear fuel cycle is promoted, the more complicated it becomes. For every bit of radioactive waste extracted, more complicated, larger volumes of waste emerge. The danger of accidents and nuclear proliferation are increased. By abandoning the nuclear fuel cycle, it will become possible to develop a flexible policy.

Mr Asaishi’s argument was that there is already too much plutonium. The notion that by going steadily forward this problem will go away is nothing but wishful thinking. Even if Rokkasho becomes operational, it won’t be profitable, so it would be better to withdraw now.

Spent fuel should be disposed of as is. Once uranium tests begin, the plant will be irreversibly contaminated with radiation. In that case, the 2.6 trillion yen cost of decommissioning the reprocessing plant will be passed onto future generations.

Which is preferable, to begin full-scale operation, or to conduct a truly open public debate, based on the principle of freedom of information?

(Hideyuki Ban, CNIC)
A leak from the Spent Fuel Storage Pool which occurred in Spring 2001 was discussed in NIT No.95 (May/June 2003). Since then Japan Nuclear Fuel Ltd (JNFL) has continued its attempts to identify the cause and the places from whence the leaks came and a report was produced in August last year. According to JNFL, holes which went right through the Spent Fuel Storage Pool liner were found in six places and faulty welding was identified in 291 places.

Faulty work was found not only in the Spent Fuel Storage Pool. It was also present in liquid holding vessels for all sorts of solutions within the factory itself. Of these, one hole penetrated right through and there were 57 examples of faulty work. Again associated with faulty welding, there were around 100 instances of metal fittings that had been severed. The fittings in question are metal plates embedded in the concrete that supports the fuel racks.

JNFL has announced that it will redo all the faulty welds where leaking has actually occurred, as well as all the welds where leaking could possibly occur in the liners of both the Spent Fuel Storage Pool and of the vessels. However there is no guarantee that this repair work will actually ensure the safety of the facility.

One direct cause that can be identified for the faulty work is that the construction time was extremely short. Despite the fact that the total length of welds in the Rokkasho Spent Fuel Storage Pool are 6 times that of a nuclear reactor, the time allotted for the work was about the same as that for a reactor. It represents a complete failure of control of the construction process. The reason for this is that, due to the fact that Japan’s nuclear power plants have only small storage pools for their spent fuel, in several plants there was a possibility that they would run into trouble when exchanging fuel, so the work at Rokkasho was rushed. On top of this, when JNFL took over the facility from the construction companies, it only carried out checks selectively.

It speaks volumes for the flaws in JNFL’s quality assurance system that it could fail to notice such huge construction faults.

### Chemical tests detect 300 defects

Chemical tests of the factory itself were completed at the end of December 2003. These tests were carried out at nine of the ten buildings and 307 defects were identified. No tests were conducted at the Vitrification Building. (In an earlier test using water and steam 1000 defects were found.) In the Dissolver several thermometers, very significant instruments from the point of view of safety, were incorrectly positioned. The Dissolver was installed in 2001 and a test was carried out by flushing water through, but this problem wasn’t discovered until the chemical tests in 2003. These defects were fixed and tests were carried out again.

The correction of defects has not been completed in the following two areas: (1) modification of the pipes used in the extraction of concentrated solutions from the Solvent Distillation Column in the 2nd Acid Recovery System (this is scheduled to be retested before the uranium tests begin); and (2) a problem with the software which controls a locking valve related to protection against criticality accidents. This is a big problem. They say it will be fixed and retested before ‘active testing’ begins. Tests using spent fuel are planned, but it appears that there are lots of problems with the safety of the whole facility and with the quality assurance process. No doubt the defects of the inspection arrangements of the Agency for Nuclear and
Industrial Safety, the organization with responsibility for giving the final approval for the storage pool, will also be called into question.

**Operational date deferred until July 2006**

JNFL has lost the public’s trust as result of the leak from the spent fuel storage pool. The response of both Aomori Prefecture and the central government to JNFL’s quality assurance failures has been to set up investigation committees focusing on this problem. It is necessary, especially for the regional government of Aomori Prefecture, to sign a new safety agreement before the uranium tests begin. Until the results of the debates of the investigation committees emerge, JNFL can’t begin the uranium tests at the reprocessing plant. Furthermore, because it has become clear that the work to fix the leakage problem will take several months, in September JNFL announced that it would defer the commencement of operations at the Rokkasho Reprocessing Plant by one year to July 2006. This is the seventh postponement and the original plan to commence operations in 1995 has been delayed by 11 years. However the chances of JNFL running to time, even under this new schedule, are remote.

The Governor of Aomori Prefecture changed in February 2003. The Executive and new Governor Mimura have been supportive of the reprocessing plant, but they have also made critical remarks concerning JNFL, saying that, “Above all the soundness of the factory must be assured.” In order for uranium tests to begin, a new safety agreement with Aomori Prefecture is necessary. This is likely to generate fierce debate in the Prefectural Assembly and there is no guarantee that this hurdle can be cleared in less than a year. As for the only envisaged end use of the plutonium, in MOX fuel, there are no signs that either the Fukushima, Kashiwazaki-Kariwa or Takahama Nuclear Power Plants will be able to use it. That the overall nuclear cycle policy has stalled is now glaringly obvious and the argument that Rokkasho Reprocessing Plant is necessary has become thinner than ever.

**Total cost of reprocessing 11 trillion yen**

There is yet another reason to abandon reprocessing. In November the Federation of Electric Power Companies of Japan stated that total back-end costs amount to about 19 trillion yen (18.8 tril.). This includes the construction, operation, repair, dismantling and waste management of Rokkasho Reprocessing Plant,

*Continued on page 16.*

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**Back End Costs**

(Figures inside brackets are in billion yen)

![Diagram of Back End Costs](image-url)

- **LLW**: Low Level Waste
- **SF**: Spent Fuel
- **TRU**: Transuranic Elements
- **UEF**: Uranium Enrichment Facility
- **MOX**: Mixed Oxide

**19,000 billion yen**
Developments Since ‘Monju’ Court Decision

by Miwako Ogiso (Head of the Office for the Accusers Group in the Monju Court Case)

METI’s appeal to the Supreme Court

Concerning the Monju Fast Breeder Reactor, built by the Japan Nuclear Cycle Development Institute (JNC) in Tsuruga City, Fukui Prefecture, on 27 January the Kanazawa Branch of the Nagoya High Court ruled that the approval to build the reactor was invalid (NIT No.93). In response to this decision, on the 30th of that month the Minister for Economy, Trade and Industry (METI) appealed to the Supreme Court on the grounds that the decision went against a precedent set by the Supreme Court.

On 23 October, we the accusers submitted a defense to the Supreme Court refuting the government’s claim and saying that “the decision is in accord with precedent, so there are no grounds for this appeal, which is based on a distorted legal interpretation”. We proudly appeal to the general public to understand that this decision is not in the least bit strange; rather, that it is totally in accord with Supreme Court precedents.

The government is preparing for the start up of Monju before the Supreme Court makes a decision and is applying pressure to the Supreme Court to overturn the High Court’s decision. On 27 December 2002 METI gave permission to JNC to make alterations to Monju. These alterations are a precondition for Monju to be restarted. Since then the High Court has handed down its decision, but this has no force because it is subject to an appeal. JNC’s position is that it wants to get on with the alterations regardless of the court’s decision. In order to commence work, agreement from the regional governments is necessary, so the government and JNC have joined forces to apply pressure to Fukui Prefecture and Tsuruga City. Every month since June, the Atomic Energy Commission (AEC), the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and METI have been snowing Fukui and Tsuruga Cities with symposiums and explanatory meetings. And each time, they take out a one or two page advertisement in the newspaper.

Also, Fukui Prefecture is carrying out its own safety investigation, independent of the central government’s investigation, and two years ago, in order to carry out a detailed investigation of Monju’s safety, it established the Monju Safety Investigation Expert Commission. There are five experts, all of whom have towed the government’s line until now, so the result was obvious from the time the commission was established. On 16 September they announced their conclusion that Monju is safe and called for public submissions. The final report was handed to the Prefectural Government on 14 November. The report was presented to Tsuruga City Council and the Prefectural Assembly. The plot is being laid so that, if a mood for starting work can be created in the Assembly, the Tsuruga Mayor and the Fukui Governor will be able to say that this is the will of the local people and that they have to go along with it. This is the way things might proceed, even if they have to call an emergency session of the Prefectural Assembly.

Discontented citizens

MEXT is the department promoting Monju. METI’s Agency for Nuclear and Industrial Safety (ANIS) has responsibility for regulations, so ANIS and the Nuclear Safety Commission of Japan, in order to press the appropriateness of the regulatory administration that they themselves manage, will give their full cooperation to MEXT. Of course the AEC will
give its support too, so all these organizations will be encouraging MEXT. The full weight of the government will be promoting the need for and safety of Monju.

However, this type of a one-sided ‘explanation’, has been confronted with a severely critical populace at every meeting. So on 13 September in Fukui City MEXT, for the first time, held a meeting including their opponents. They hoped that that would bring to an end their maneuvers to persuade the public, but they met with fierce opposition at the symposium. Faced with pointed questions and comments from ordinary citizens, the government was left holding its hands helplessly in the air. Unable to let things end in that fashion, they held a follow-up meeting in Tsuruga City on 25 October. They drafted some supporters to speak in favor of reopening Monju, but more people were opposed and they failed once again in their attempts to create an atmosphere of public support for reopening.

At the local meetings in Fukui and Tsuruga cities on December 13, 2003, organized by the prefectural government in order to explain the report of the Monju Safety Investigation Expert Commission, they were again unsuccessful in persuading the citizens. The majority of participants expressed their dissatisfaction with the report.

Now the overwhelming attitude of the local citizenry towards Monju is, “The High Court has made a weighty decision, so obviously the decision should be respected.” However the Governor of Fukui Prefecture and the Mayor of Tsuruga have taken the view that reopening Monju and commencing alterations are different issues. When the central government has been pleading with them so much, one can understand how they have become set in the feeling that they have no choice but to agree to the work. Nonetheless, there seems to be a significant difference between the stance of the Governor and that of the Mayor. The Governor will not readily agree to an early restart of Monju if the central government will not provide a positive answer regarding the development of the regional economy. On the other hand the Mayor, influenced by local business leaders, places more emphasis on the local economic benefits from Monju modification work than on any economic stimulation at the prefectural level.

**Monju should be decommissioned**

The government’s Monju-centered nuclear fuel cycle policy was drawn up in 1967. Since then it hasn’t changed one iota. Despite the fact that times have changed so much, we are still faced with their stubborn fixation with this 35-year-old policy. It is precisely this state of affairs which we must change. If we can’t do this, there is no future. 800 billion wasted yen has already been poured into Monju. That is all a burden that the public has to carry.

Drawing attention to these issues, we appeal for Monju to be closed down. We must build up public opinion to place pressure on the Supreme Court to confirm that the permission granted to build Monju was invalid.

To this end, on December 6, on the Shiraki beach of Tsuruga City, with Monju facing them across the water, a Decommission Monju! National Gathering was held. There 730 participants expressed their opposition to the government’s stance and appealed to the local municipality not to go ahead with modification of the Monju FBR plant (Picture).
Misako Ogawa
A Municipal Assembly Member Campaigning Against Nuclear Power
by Yoko Torihara*

M isako Ogawa has been working for eight years as a member of the municipal assembly in the city of Kagoshima, 44 km from the Sendai Nuclear Power Station. She asks questions about the power station at every assembly meeting. Her campaign to phase out nuclear energy is a political appeal through action from within the Assembly. Feeling the need to carry the voice of the countryside to the nation, she ran for a seat in the Municipal Assembly eight years ago. She has confronted the Mayor with inconvenient issues, such as truthful investigations of problems at power stations, the question of disaster prevention, the problem of school trips to the Nuclear Power PR Center and the demand for a change to renewable sources of energy. She has emphasized again and again that, though in the case of natural disasters such as earthquakes and floods reconstruction is possible, once nuclear power plants suffer an accident that is the end. Recently her influence has spread across party lines to other council members, and more and more questions regarding nuclear power have started to emerge.

Twenty-two years ago, shortly after her eldest son was born, she happened to watch a TV documentary which heightened her awareness of the problem of nuclear power. She learned about the contract workers who carry out regular inspections at nuclear power stations, but who are unaware of their exposure to radiation. The lives of these workers who have been exposed to radiation became her stepping-stone. She was shocked to realize that our own way of life depends on the consumption of large quantities of readily available electricity, so she started anxiously reading lots of books about nuclear power.

Meanwhile the construction of Sendai Power Station steadily continued and operation was started in 1984. Then in 1986 the shocking nuclear accident at Chernobyl happened. She began to understand that once an accident has happened, the radioactive contamination crosses national borders and spreads to the dining tables of ordinary families. The effect on infants and children is especially severe. Out of a feeling that something needed to be done, she launched an anti-nuclear power network of housewives across the country.

Since then she has undertaken a variety of actions aimed at the phasing out of nuclear energy, adopting as her motto the slogan, “I want to live without nuclear power”. Her efforts to expand the movement to phase out nuclear power cover a wide range of activities, including opposition to the construction of new nuclear power stations, to the nuclear fuel cycle and to the export of nuclear power plants. She has carried out research in countries that have experience with phasing out nuclear power, she has organized lectures and film events regarding nuclear power and she participates in such things as signature campaigns, protest advertising and protest sit-ins. Wherever alliances can be formed with people pursuing the same

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*Yoko Torihara is President of the Federation of the Opposition to the Building of Sendai Power Station.
Is Fukui Prefectural Assembly really prepared to oppose nuclear reactors?

On December 8 the Fukui Prefectural Assembly decided to press for the extension of the Hokuriku Shinkansen (bullet train) to Fukui Prefecture. The Fukui Prefectural Assembly demanded that the central government approve the extension of this Shinkansen, which is now under construction, to Nan’etsu and that it quickly commence work on the line within Fukui Prefecture. It demanded that work within Fukui be commenced at the same time as the Nagano-Toyama section. It stated that, “depending on the attitude of the central government on this matter, we are prepared to oppose the nuclear energy policy in future”. It is possible then that the prefectural government might oppose the commencement of work on the modification of Monju and the building of two additional reactors at Tsuruga (Nos.3&4, each APWR 1358MW).

The Mayor of Tsuruga and the Tsuruga Local Assembly are strongly opposed to this line of thinking. They take the view that this would amount to treating Tsuruga City with contempt, given that the city is host to both Monju and the Tsuruga Nuclear Power Plant. They believe that the modification of Monju and the expansion of the Tsuruga Power Plant would give a big economic boost to the Tsuruga construction companies and eating houses, which are currently languishing in depression.

On December 26 Tsuruga Mayor Kawase visited Fukui Governor Nishikawa to request that he promote the plan to build Tsuruga Reactors 3&4. By indicating support for commencement of the modification work, the Mayor also put pressure on the Prefecture for a response on Monju. For his part, Governor Nishikawa refused to budge from his position that he would make an “overall judgment” taking into account the Prefectural Assembly’s decision.

The expansion of Tsuruga Power Plant was included in the central government’s Basic Plan for Electric Power Development in August 2002 and in December the Fukui Governor and the Mayor of Tsuruga agreed to the Japan Atomic Power Company approaching the central government for approval. However in regard to the destination of the power, due to reduced demand, Kansai Electric Power Company is showing some reluctance and is yet to make a request.

The Fukui Prefectural Government and Tsuruga City Council are in conflict due to their differing economic interests, but they are on common ground in regard to their lack of interest in such questions as the need for and safety of nuclear energy.

FEPCO reconfirms target for pluthermal power generation project, but . . .

The Federation of Electric Power Companies (FEPCO) reconfirmed on December 19 that it would stick firmly to its target for the pluthermal project. FEPCO originally announced the target in February 1997. According to this target it would start in FY1999 to use plutonium in two thermal reactors and by FY2010 this number would increase to between 16 and 18 reactors. However the plan to start in FY1999 collapsed and, as of the end of 2003, the plan has not been implemented. What was reconfirmed this time was merely the final goal of 16-18 reactors by
FY2010.

Tokyo Electric Power Company (TEPCO), whose cover-up scandals at its nuclear facilities were exposed in August 2002, withdrew Fukushima 1 and Kashiwazaki-Kariwa from the list of reactors where pluthermal was to be implemented and also removed the word ‘implement’ from the plan. TEPCO has made “the recovery of the trust of the local people its top priority task.”

Other than Kansai Electric Power Company (KEPCO), which still maintains its plan to implement the pluthermal project in two reactors at Takahama and the Japan Atomic Power Company, which plans to implement it in one reactor at Tsuruga (both by 2008), the other utilities have no concrete plan, although they say they will implement the project by 2010. Electric Power Development Co. Ltd. (now trading under the name J-Power) has stated that it will start the project in 2011 at Oma nuclear plant, making it clear that it is unable to keep the 2010 deadline. There seems to be no chance of them achieving this goal.

FNCA ministerial-level meeting: “Nuclear power should be included in CDM”

A ministerial level meeting of the Forum for Nuclear Cooperation in Asia (FNCA) was held from December 2-4, 2003 in Nago City, Okinawa Prefecture. FNCA is hosted by the Atomic Energy Commission of Japan, and the venue of the annual ministerial meetings alternates between Japan and the other countries. It was held in Thailand in 2000, Japan in 2001, South Korea in 2002, and the next meeting is scheduled to be held in Vietnam.

The 4th meeting in 2003 was attended by ministers from Japan, South Korea, Malaysia, and the Philippines and vice-minister level officials from China, Vietnam, Indonesia, Thailand, and Australia. At the meeting ministerial round-table discussions were held on two topics: (1) “the increased social and economic effects of the use of radiation and radio-isotopes”; and (2) “sustainable development and nuclear energy”.

With regard to the first topic, the point was made that major users of radiation and RI are “outside” of the nuclear power industry, such as those in agriculture and medical care, and the importance of strengthening cooperation with research and development institutions “inside” the nuclear industry was emphasized.

As for the second topic, there was a consensus that nuclear power is an important energy supply option in the Asian region, where there is such strong economic growth. There was also agreement that nuclear power should not be excluded from the Clean Development Mechanism (CDM) in the second commitment period (2013-17) under the Kyoto Protocol.

At the meeting the participants agreed on a new project for a discussion panel to consider “the sustainable development of Asia and the role of nuclear power”. Preparations for this topic have been underway for the last two years. The first panel meeting is scheduled to be held in the early part of 2004. It is said that, as well as clarifying demand and supply of energy in Asia and greenhouse gas reductions resulting from nuclear power generation, the panel will assess the use of nuclear power for purposes other than power generation, such as for desalination of seawater and production of hydrogen.

Nuclear reactor terror response: new organization formed

ANIS (Agency for Nuclear and Industrial Safety) has made a decision to form a new organization in 2004 to respond to terrorism against nuclear facilities. Legislation will specify steps that should be taken by companies with nuclear facilities, such as electric power companies. The new organization will inspect the protective systems in place at such facilities. ANIS is also considering the possibility of recruiting people with expertise in anti-terrorist measures from outside of ANIS.
plus the MOX plant and the transport, storage and disposal of radioactive waste returned from overseas. Regarding the reprocessing plant, so far only the construction costs have been released. These construction costs alone keep going up and have now reached ¥ 2.14 trillion.

The total cost calculations for the plant are based on it operating for 40 years from 2006 then taking 32 years to dismantle. In total, the Rokkasho Reprocessing Plant alone consumes 11 trillion yen, or 60% of the total back-end costs. However this is only a very approximate minimal figure. Future increases are inevitable. In regard to this enormous figure, Japanese power companies say that they have already reached the limit of the money they are able to set aside from their own funds and that they will increase charges and also request supplements through the tax system.

Solving the problems of repair of the leaking pool and the huge waste of money is very easy in our opinion. Simply abandon the Rokkasho Reprocessing Plant.

(Masako Sawai, CNIC)

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goals, she will be there.

After the accident at JCO, working with an anti-nuclear power group she traveled to the city of Sendai every month for seven months to distribute pamphlets about the danger of nuclear power and she was successful in initiating citizens’ movements against the construction of Sendai Reactor No. 3.

She used the larger part of her bonus to print a picture book and a comic pamphlet, which illustrates how we can live without nuclear power. In all sorts of ways she continues to appeal to the public to oppose nuclear power. The comic pamphlet has been distributed to over 100,000 households.

Her enthusiasm to “pool all our wisdom to stop nuclear power plants” has certainly helped to enlarge her mainly women’s network and the vitality of her activities has become a great stimulus for the local anti-nuclear power movement.

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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 (Regular subscriber - $30 or ¥3,000/year; supporting subscriber $50 or ¥5,000/year). When paying in Japan, the subscription fee should be remitted from a post office to our post office account No. 00160-0-185799, HANGENPATU-NEWS. Due to costly processing fees on personal checks, when sending the subscription fee from overseas, please send it by international postal money order. We would also appreciate receiving information and newsletters from groups abroad in exchange for this newsletter.

Editors’ comments re this edition

1. Please note the new address of our English home page (refer top page).

2. We apologize for the delay in the distribution of this edition of NIT. We are in the midst of a change-over of editors. The new editor, Philip White, is an Australian citizen who has been resident in Japan for many years. He has been a volunteer translator for NIT in the past. This edition was a joint effort, with the previous editor, Kazuhisa Koakutsu, helping during the change-over period.

3. We welcome comments and suggestions about the style and content of NIT. Please feel free to contact us. If you send an email message, be sure to provide a clear subject heading so that we can distinguish it from all the spam we receive.

Translators: Philip White, Britta Hajek, Junko Yamaka, Kazuhisa Koakutsu
Proof-readers: Yukio Yamaguchi, Baku Nishio Editors: Kazuhisa Koakutsu & Philip White