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Citizens' Nuclear Information Center

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Children's Lives after the Fukushima Nuclear Accident



The persimmon trees, now leafless but heavy with the orange colored fruit, seemed to glow here and there in the evening sun in Fukushima. (Photo by Ms. Hirashima)

What kind of lives are the children who were forced to flee from radiation into evacuation in different parts of Japan now experiencing? What has become of the schools that were affected by the disaster? Are the children who remained in the affected areas now able to enjoy a good quality school life? These questions have remained in my heart since that day, three years and eight months ago.

At the end of October 2014, I visited the Futaba area in Fukushima Prefecture, observed classes, met with the children and learned of the distress in the schools from teaching staff, including principals and assistant principals, and also from related officials such as the local superintendant of schools.

As Fukushima City is the capital of Fukushima Prefecture, the Fukushima high-speed Shinkansen train station is quite impressive, but the monitoring post in a small park around the side of the station showed the air dose rate to be 0.206 microsieverts/hour

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(μ Sv/h). My own radiation counter indicated 0.24 to 0.28 μ Sv/h. Converting to annual dose rates gives 1.8 mSv or 2.10 to 2.45 mSv. Perhaps it would be fair to say that the annual dose rate was about 2 mSv. However, international recommendations call for an annual dose rate of less than 1 mSv. That value would correspond to 0.11 μ Sv/h.

Basing myself in Fukushima City, I travelled back and forth from central Fukushima Prefecture to the Fukushima coastline in the east. Passing through Iwaki City, Miharu Town, and Nihonmatsu City, I measured the air dose rate in the car, as I also did in the entrance halls, school yards and inside the buildings of the schools I visited. Inside the school buildings where the children are studying, including the corridors and classrooms, the air dose rate was 0.1 to 0.2 μ Sv/h. In particular, there were places where the dose rate in the school yard exceeded 0.2 μ Sv/h. Thus the dose rates were just within, or in many cases exceeded, the internationally-recognized limits.

Passing through the rural areas in the car, the persimmon trees, now leafless but heavy with the orange colored fruit, seemed to glow here and there in the evening sun. This peaceful-looking scenery continued for many miles. In the background to the narrow roads, just wide enough for a car to pass, the footpaths between fields, or the long but slightly sloped river banks, there were woodlands, and in many places thick forests could be seen. It is impossible to consider that these places will ever be decontaminated. Since the half life of Cesium-137 is 30 years, nothing can be done but to wait. Perhaps it will be several hundred years before people can live here with peace of mind. I found this to be an extremely gloomy and worrying prospect.

In April 2011 (April is the beginning of the academic year in Japan), a total of 70 schools in Fukushima Prefecture were temporarily closed because they were unable to restart, or had been temporarily relocated. Of these, 38 were elementary schools, 20 were middle schools, 11 were high schools and one was a special-needs school. With the exception of one elementary school, all of these temporary closures or relocations were due to the nuclear power station explosions. A total of 8,013 students and 1,582 school teachers and staff were affected.

Three years later, in April 2014, schools which are still not able to restart and remain temporarily closed are four elementary schools and two middle schools run by Namie Town. The teachers and staff have been reassigned to "additional posts" in different schools all across the prefecture. The number of Fukushima schools that have returned to the original location and have reopened is 15 elementary schools and eight middle schools. Besides these, 19 elementary schools and ten middle schools have borrowed classrooms in other schools, have been closed through amalgamation with other schools, or have reopened by relocating temporarily to private facilities.

Many of the schoolchildren who remained in Fukushima Prefecture are living in temporary housing and are spending an hour to 90 minutes each way in school buses getting to and from school. They leave their homes before 7 a.m. and return in the early evening or sometimes after nightfall. Fatigue is accumulating among the younger elementary school children. Sports activities are limited due to lack of or insufficient school yards. Moreover, the long commuting times mean that all kinds of activities cannot be carried out satisfactorily. Some of the teachers and school staff commute more than 70 km each way to their schools. This was supposed to happen for only one year, but already more than three years have passed. The teachers lamented the fact that there does not seem to be any end to this situation in sight.

In the case of two of the municipal elementary schools in Namie Town, Namie Elementary School and Tsushima Elementary School, a school building belonging to a former school was discovered in Nihonmatsu City, and both schools have relocated and reopened in the one building. In April 2011, all 558 students and 58 teachers, respectively, from the two schools began to attend this relocated school, but by April 2014 the numbers of students from the two schools had fallen drastically to a mere 19 students and 3 teachers. Some grades have zero students. Where there are students in a classroom, there may be two or three students studying together with several teachers. This is very far from the image we have of a school where children are cheerfully playing and studying while surrounded by a large number of friends and teachers. With sad expressions, the teachers said they felt uncertain whether the students now in the school would be able to graduate from that school, or whether new students would enter in April 2015.

(Yukio Yamaguchi, CNIC Co-director)

Samcheok, South Korea, holds “genuine” local referendum on new NPP

By TAKANO Satoshi, Asia Citizen Network for Peace, S Korea

A local referendum on a new nuclear power plant (NPP) construction project was conducted in Samcheok City, Gangwon Province, South Korea on October 9, 2014. Here I will discuss the significance of this referendum.

Let me briefly look back on the developments up to this local referendum. In December 2010, Mr. Kim Dae-su, former Samcheok city mayor, applied for selection as a new NPP site, and in September, 2012, the national government officially designated Samcheok as the site for the next plant. Mr. Kim Yang-ho, present mayor of Samcheok, won the mayor's post in the nationwide local elections on June 4, 2014 on an electoral platform of opposition to the new NPP construction plan and his intention to hold a local referendum on whether or not to allow the plan to go ahead. On August 26, the city assembly unanimously voted for implementation of the referendum.

However, the Ministry of Trade, Industry and Energy announced its position that the referendum should be exempt from those defined under the referendum law because selection of a new NPP site is a “national duty”. This announcement thus deprived the Samcheok citizens of the legal ground for a binding referendum.

The Samcheok citizens felt angry at this decision, but they did not give up. On September 12, the residents set up a referendum administration committee, officially announcing its establishment on September 15. This administration committee consisted of 15 members, which also included nuclear power supporters in order to secure fairness. It was financially managed with donations alone and its staff members were all volunteers. The management costs were therefore cut to about one fourth of that of an official referendum. All residents over 18 years of age were eligible to vote in the referendum.

When I visited the referendum administration committee with seven other Japanese, the chairman said, “The Donghae city assembly issued a statement supporting this referendum on September 29, as did 18 municipal and county assemblies in Gangwon



Counting the votes in the local referendum on the proposed NPP in Somcheok

Province on September 30. Many civic groups across the nation have also declared their support.” He went on to say, “This visit by our Japanese friends in support of the referendum can be said to add legitimacy to the referendum.”

On polling day, I was allowed to enter the polling station, which was set up in a gym. The ballot count was carried out amid a tense atmosphere, the committee chairman announcing the result at around 11 p.m. Of the 28,867 voters, 4,146 voted for construction of the NPP, and 24,531 against it. The committee chairman then declared that the local community had decided to oppose the construction of the new NPP in their city.

The voter turnout rate was about 68%, and the opposition votes accounted for roughly 85% of the votes cast. This meant that the opposition group had won overwhelmingly, and cheers and applause erupted in the venue. A new page had been added to the history of South Korea's departure from nuclear power generation.

Despite this result, the government has yet to retract its plan to build the plant in Samcheok. A Samcheok resident said, “A nuclear phaseout is our identity.” By holding the referendum, they turned their belief into concrete action. Thus the referendum can be described as the practice of democracy and real autonomy by the citizens. Their action is exerting a great influence on the global nuclear phaseout movement.

Residents of Fukushima's Iitate Village file petition for nuclear damage compensation to restore home village

Nearly half of the entire population of Iitate Village, Fukushima Prefecture, filed a petition with the Nuclear Damage Compensation Dispute Resolution Center (NDCDRC) on November 14, 2014, demanding measures to restore the lives of the nuclear disaster victims. The petitioners are 2,837 villagers from 737 households and the petition is addressed to Tokyo Electric Power Company (TEPCO) President and CEO, Naomi Hirose.

The petitioners' group and their lawyers have recently compiled a booklet that contains the text of their petition and part of the accompanying materials. We introduce some of the contents of the booklet in this article.

Main points of the petition seeking NDCDRC arbitration for an out-of-court settlement

The petitioners call on TEPCO to

1. admit legal responsibility for causing serious radioactive contamination in the village and inflicting massive damage on the villagers, and to sincerely apologize to the villagers for this,
2. pay 3 million yen to each villager to compensate for mental anguish regarding their health and other psychological stress caused by radiation exposure that could have been prevented,
3. raise the amount of compensation for the period of evacuation from 100,000 yen per person per month to 350,000 yen,
4. pay 20 million yen to each of the petitioners as compensation for destroying their livelihoods and causing psychological distress,
5. pay the maximum amount of compensation (that for the "difficult-to-return zone") to the residents who need to secure their houses, but without categorizing the locations into "difficult-to-return zone," "restricted habitation zone," and "evacuation directive lift preparation zone," and without forcing them to take complicated procedures for filing applications, and
6. pay lawyers' fees for this class action suit.

Purpose of the class action suit

This class action suit was launched by the Iitate residents for the purpose of extracting an apology from TEPCO for forcing all the villagers to evacuate after the utility's accident at the Fukushima Daiichi Nuclear Power Station in 2011, to seek just compensation for the damage they have suffered in order to regain their pride as Iitate villagers and to restore their home village.

As of November 2014, three years and eight months had passed since the outbreak of the nuclear crisis at the Fukushima nuclear power

station (NPS). Yet all the residents of Iitate Village are still being forced to take shelter elsewhere, deprived of their livelihoods, and with many families dispersed in different locations. The utility that operated the crippled NPS has yet to apologize to the victims even now, and compensation for the damage is not moving forward. Although only extremely superficial decontamination is being carried out, the central and prefectural governments, as well as the village office, are scaling back the off-limit areas and urging the residents to return home.

To date, the Japanese government has repeatedly turned their back on the public when pollution-induced environmental destruction has occurred, for example, in the Ashio Copper Mine Pollution Case that broke out in Gunma Prefecture in the 1880s and in the case of the Minamata disease caused by organic mercury poisoning, which was brought to light in Kumamoto Prefecture in the 1950s. It is absolutely unacceptable that the Iitate villagers should be dispersed into evacuation and then compelled to swallow their poor fortune without due compensation.

Iitate Village before the nuclear disaster

Iitate Village has an area of 230 km², of which forest accounts for nearly 75 percent. Located on a plateau, the village enjoys a cool climate. In summer, the seasonal cold Yamase wind blows, causing crop damage. The villagers, however, worked hard to stimulate the local economy by drawing up their own economic development plans. They reformed their agriculture by developing new varieties of cold-resistant crops, promoting dairy farming, and taking other measures.

Most of the villagers grew vegetables for home consumption in their gardens. They picked herbs and mushrooms in the mountains, and

caught fish such as iwana and yamame (kinds of river trout) in the nearby rivers. They frequently hunted for wild boar and pheasant. For these reasons, they spent hardly any money on food. Their high environmental awareness enabled them to negotiate the freezing of a golf construction project in the village.

As can be seen from this, the villagers did not rely on large-scale economic development projects, and collaborated to build economic independence and local development.

Villagers who were unable to flee and their exposure to radiation

On March 15, 2011, the peaceful life of the Iitate villagers, based on co-existence with the natural environment, abruptly changed with the radioactive contamination caused by the Fukushima nuclear accident. The village is situated 30 to 50 kilometers to the northwest of the plant. On that day, the containment vessel of Unit 2 was severely damaged and a huge amount of radioactive substances released into the atmosphere, the plume drifting in the direction of the towns of Ohkuma, Futaba and Namie, Iitate Village and Fukushima City. After nightfall, rain and snow fell in those areas, washing the radioactive substances to the ground. The toxic substances soaked into the ground, causing extremely high radioactive contamination exceeding 1,000 to 3,000 kBq/m² (kilobequerels per square meter), which is similar to high-level contaminated zones during the Chernobyl NPS accident.

In the evening of March 15, an extraordinarily high air dose rate of 44.7μSv/h (microsieverts per hour) was registered in front of the Iitate village office. However, many of the villagers had no knowledge of this and children played outside in snow that contained enormous amounts of radioactive substances. Many of the adults also stayed outside most of the day, cooking meals for the people who had taken refuge in the village. Others were busy directing and controlling traffic in an attempt to cope with traffic jams on the village roads because of the evacuees escaping from the nuclear accident.

An expert calling himself an adviser on radiation-related health management, dispatched from the Fukushima prefectural government, came to Iitate and repeatedly told the residents that the situation in the village was safe and posed no threat to their health. Hearing this comment, some residents recalled family members from evacuation locations in other prefectures and other villagers decided not to evacuate.

The village mayor also stressed that just staying indoors was enough to avoid radiation risk, and the central and prefectural governments failed to issue any evacuation orders for as long as one month.

Villager radiation exposure survey

The Fukushima Prefecture survey of residents' health later announced the estimated early-stage exposure rates for the four-month period from March 11 to July 11, 2011. Based on the materials released on June 5, 2013, a summary of the residents who were living in municipalities where residents received 5 mSv or greater exposure shows that 80% of those were residents of Iitate Village. At the same time, the survey team also conducted a survey on 3,102 villagers, revealing that the average exposure dose was 3.6 mSv.

Meanwhile, a similar study conducted by Assistant Professor Tetsuji Imanaka of Kyoto University during the same period revealed that the average exposure dose to 1,812 villagers stood as high as 7.0 mSv. Moreover, this figure did not include internal exposure.

This massive exposure to radiation could have been prevented if TEPCO, the central and prefectural governments and the Iitate village office had provided correct information to the villagers.

Villagers' prolonged life in evacuation

Nearly four years have passed since the Iitate villagers took shelter in areas outside the village. In the meantime, about 100 relatives of the petitioners have died due to both physical and mental distress resulting from the hard life as evacuees. Elderly people, in particular, have suffered aggravation of chronic ailments, or dementia, affected by the sudden change in their lives, and some of them have committed suicide or died suddenly. The bereaved families are feeling impotent rage over these tragic occurrences.

The petitioners have stood up to demand that TEPCO apologize to them, provide them with sufficient compensation, and return to them the clean and safe environment of their home village.

We hope that their plea will be heard by as many people as possible, that they will gain more support for their fight, and that they will obtain an apology and just compensation from the utility as soon as possible.

(Kaori Yoshioka, CNIC)

CNIC Public Comment on the Draft Report for the New Regulatory Requirements Screening for the Kansai Electric Power Company's Takahama Nuclear Power Plant

Background

As a result of reflection on the Tokyo Electric Power Company Fukushima Daiichi Nuclear Power Station (FDNPS) accident, the regulation of the use of nuclear power has been placed under the jurisdiction of the Nuclear Regulation Authority (NRA), inaugurated in September 2012. The amended Nuclear Regulation Law, mandating countermeasures against severe accidents (incidents far exceeding presumed possible accidents, in which serious damage occurs to a reactor core, etc.), and the regulatory requirements that give concrete expression to the law, entered into force in July 2013. Since compliance with the new regulatory requirements is required for nuclear power plants already in operation, each of the power companies is applying to the NRA to screen for compliance with the new regulatory requirements as soon as preparations for the application are complete. (As of January 2015, 19 nuclear reactors operated by 11 power companies are undergoing screening.)

The draft report for the new regulatory requirements compliance screening for the Kansai Electric Power Company's (KEPCO) Takahama Nuclear Power Plant Units 3 and 4 was released in December 2014. This is the second draft report to be released, following the draft report for new regulatory requirements compliance screening for the Kyushu Electric Power Company's Sendai Nuclear Power Plant Units 1 and 2, which was published in July 2014 and approved by the NRA in September (NIT 162).

A call for public comments regarding KEPCO's draft report was issued for the period December 18, 2014 to January 16, 2015, to which CNIC responded by submitting an opinion.

Issue 1: Problems of the new regulatory requirements themselves



Location of the Takahama Nuclear Power Plant

The new regulatory requirements have been formulated based on the lessons learned from the FDNPS accident, and it is a fact that some improvements compared with the former requirements have been seen in the items incorporated as countermeasures against severe accidents, etc. However, these requirements have been formulated before the causes of the FDNPS accident have been thoroughly clarified, and from that point of view the requirements entail immense problems.

For instance, the NRA still maintains that the cause of the FDNPS accident was the tsunami and not the earthquake, but as pointed out by Mitsuhiro Tanaka, member of the now-disbanded National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission (NAIIC), a large number of phenomena that cannot be explained by the tsunami alone occurred during the FDNPS accident. If, in fact, a part of the important functions of the NPS were damaged by the earthquake, then it would be necessary to carry out a fundamental review of the seismic screening guidelines currently in force.

However, there is no evidence to show that any such review was part of the formulation process of the new regulatory requirements.

Further, a part of the facilities for countermeasures against severe accidents, such as the intentional crash of a large aircraft into an NPP, have been given a five-year grace period, and we also believe this to be a grave problem.

Issue 2: The problem of MOX fuel

KEPCO has applied for the new regulatory requirements compliance screening on the premise that the Takahama NPP Units 3 and 4 will be loaded with MOX fuel. The draft report states that the critical boron concentration* will be set at 1,850 ppm, somewhat higher than the roughly 1,700 ppm for general uranium reactor cores. This is because MOX fuel is more reactive than uranium fuel.

According to the severe accident scenarios in the application document to NRA from KEPCO, the boron concentration in the primary coolant is usually set at 2,800 ppm at Takahama NPP. If, due to some accident, an inflow of pure water causes a reduction in the boron concentration, a mere one minute is all the time that will be available to stop the concentration reduction before it reaches the critical boron concentration. When some kind of trouble arises, will it be possible to deal with the situation with only this thin margin of safety?

Furthermore, it has been claimed that all spent fuel will be reprocessed in Japan, but even the Rokkasho reprocessing plant, intended for the reprocessing of spent uranium fuel, has had to postpone the start of operations 22 times and is effectively inoperable. There is no likelihood of a MOX fuel reprocessing plant being constructed in this situation. Thus the MOX fuel used at Takahama NPP has nowhere to go and will simply continue to accumulate at the NPP site. Since spent MOX fuel has a higher heat release value than spent uranium fuel, it will be necessary to store it in a spent fuel pool for a longer period.

NRA maintains that the behavior and characteristics of MOX fuel differ very little from uranium fuel, and that therefore no special safety standards are necessary. However, the nuclear reactions are extremely fast, difficult to control, and can very rapidly get out of hand once the means of control have been

overwhelmed by the reactions. The reaction is accelerated and difficult to control in the case of MOX fuel. Moreover, the storage of MOX fuel at NPP sites is a huge cause for concern and anxiety among local residents. It is unacceptable that MOX fuel should be used without special safety standards.

Issue 3: The arbitrary use of analysis codes and the whittling away of accident likelihoods

KEPCO claims that the analysis codes it uses in countermeasure scenarios against severe accidents are appropriate, and the NRA has approved this procedure.

For instance, in the scenarios submitted by KEPCO, up until the time when the reactor vessel is damaged, 75% of all the zirconium in the reactor core reacts with water. The hydrogen then produced by the molten core concrete interaction (MCCI) is said, according to the analysis code MAAP (an analysis code which gives the extremely safe result that once the MCCI reaction begins all other reactions will cease), to be 6% of the amount of the zirconium, resulting in the hydrogen concentration being at or lower than 13% by volume. This 13% by volume is the judgement criterion for a detonation stipulated in the regulatory requirements. In other words, use of the result of the MAAP analysis will lead to highly dangerous design conditions.

However, despite the fact that the NRA acting chairman Fuketa has recognized that the analysis code for MCCI has not yet reached the level of practical application (September 24, 2014 regular press conference), the NRA has approved this analysis result and claims that assuming 75% of the zirconium reacts is, in itself, sufficiently conservative and that there is therefore no problem.

What this means is that KEPCO has carried out an arbitrary analysis in order to clear the numerical hurdles required by the regulatory requirements, and by saying that the regulatory requirements have been set conservatively, the NRA has then approved the analysis. There are far too many of these arbitrary usages of analysis codes to mention, and this procedure of using codes to whittle away the likelihood of the occurrence of accidents is an extremely serious problem.

(Hajime Matsukubo, CNIC)

*In pressurized water reactors, the output of the reactor is adjusted by the absorption of neutrons by boron dissolved in the primary coolant. The concentration of boron at criticality is known as the critical boron concentration.

Report: Gathering with Mr. Kumar Sundaram to learn about the status quo of the nuclear power industry in India

Inviting Mr. Kumar Sundaram from India, a gathering was held in Tokyo on December 11, 2014 to learn the latest news on the nuclear power industry in India. The meeting was jointly organized by the Support Action Center for Kotopanjang Dam Victims, No Nukes Asia Forum Japan, and Citizens' Nuclear Information Center. Mr. Sundaram was visiting Japan to appeal for support to nullify the Japan-India Nuclear Agreement.

Mr. Sundaram started his talk with a request to the participants: "India is the world's biggest nuclear power market. I would like to use this opportunity to discuss with participants what problems India has, in what ways the Indian and Japanese nuclear mafia are trying to promote nuclear power, and what kinds of resistance are available to citizens."

India's Civil Liability for Nuclear Damage Act

India's Civil Liability for Nuclear Damage Act, which was passed by the Indian parliament in 2010 and took effect in 2011, is a landmark piece of legislation in that it specifies the liability of reactor makers. Indian lawmakers established this Act, having been moved by citizens' worries about nuclear power, anger against multinational corporations, and strong demands for compensation for damage caused by industrial pollution. The international nuclear power industry is hatching schemes to water down the Act, which is a hindrance to the industry. The Indian government is also actively committed to a nullification of the Act.

The origin of the Indian Nuclear Liability Act is the 1984 toxic-gas leakage accident, in which a large amount of toxic gas leaked from a chemical plant located in Bhopal, in the mid-western region of India. The leakage allegedly started late at night, and before dawn thousands to tens of thousands of people had died, and hundreds of thousands of people affected. The accident was caused by an Indian subsidiary of Union Carbide, a U.S. company. The Indian Supreme Court summoned the top management of the company as criminals, but the U.S. government rejected this demand, and thus the top management was not questioned for responsibility as individuals. The company paid a great amount of compensation for the damage, but the money did not reach individual sufferers.

The Indian population shared a strong view that any accidents caused by multinational businesses should not be left uninvestigated, and consequently, in 2010, the Nuclear Liability Act was established with the inclusion of the clause specifying the liabilities of plant makers. As an additional note, however, this Act has problems such as the upper limit of compensation being extremely low, and that compensation can only be claimed within 20 years after an accident, failing to encompass late-onset health problems.

The Convention on Supplementary Compensation for Nuclear Damage may make the Indian Nuclear Liability Act toothless

The Convention on Supplementary Compensation for Nuclear Damage (CSC) states that when a nuclear accident has occurred, the country where the accident originated should pay compensation of up to three hundred million Special Drawing Rights (SDR) (USD422 million, as of Jan 27, 2015), and that any compensation above that limit is to be paid jointly by all member countries. The Indian government and nuclear lobby emphasize that CSC is beneficial because the member countries of the international network jointly shoulder the compensation. Nevertheless, CSC is problematic because it rules out the liability by nuclear plant makers and because there are restrictions on the damage categories that can be compensated.

In November 2014, the Japanese parliament passed the CSC bill and both houses approved of Japan's participation in the convention. For CSC to take effect, five member countries and a total thermal output from nuclear power stations of 400 gigawatts were required. As the Japanese government signed the convention on January 15 and became the fifth member, CSC is scheduled to take effect on April 15, 2015, 90 days later after the establishment requirements have been fulfilled. CSC concentrates nuclear accident liabilities on plant operators, and since the convention includes a clause that member countries should change their domestic laws, the Indian Nuclear Liability Act is likely to be watered down when India joins CSC.



Mr. Kumar Sundaram

government has also been trying to pull the teeth from the Indian Nuclear Liability Act, but as it was a minority ruling party, it was not able to amend the law at liberty due to objection from opposition parties. Nevertheless, the conventional ruling party lost the Indian lower house general election in May 2014, handing the right-wing Indian People's Party (BJP) a sole majority in parliament. The BJP intends to make India a strong, militaristic country. The BJP was also the ruling party when India conducted its nuclear test in 1974.

Significance of nuclear power promotion in India

The nuclear power operators and nuclear lobby in India have no intention of producing reactors by themselves. India has already signed a contract for the import of reactors into the country. Therefore, for India, nuclear power promotion means nuclear reactor imports.

After its first nuclear test in 1974, India was kicked out of the international nuclear lobby. Today, however, India is the most important nuclear power market in the world: India has been given an exceptional acceptance by the world to operate nuclear power despite not having signed the Non-proliferation Treaty (NPT). The Indian government welcomes this attitude of the international community and intends to continue its expansion of nuclear power generation. For India, promoting nuclear power generation also means developing nuclear weapons.

The Indian government, which wants to promote nuclear development, and the international nuclear lobby, which wants to sell reactors to India, are working together to nullify the Indian Nuclear Liability Act, and the issue has been consistently raised in nuclear negotiations with other countries. The Indian

If CSC takes effect internationally, the ruling BJP may voluntarily amend the Indian Nuclear Liability Act and proceed to participate in the international nuclear power lobby.

Taking a strong stand against the Japan–India Nuclear Agreement

The Japan–India Nuclear Agreement is under negotiation between the two countries and has not yet been signed. If the two countries sign this agreement, Japan, which is a victim of A-bomb attacks, will be obliged to recognize India, which has not signed the NPT, as the sixth nuclear weapons power. Signing the agreement will have an extremely strong impact on the international community.

The biggest problems concerning the possible Japan–India Nuclear Agreement are that it would destroy the world's NPT-based non-proliferation system, and that the international nuclear power industry, whose power waned after the Fukushima accident, might regain strength. I am certain that we must cooperate with each other to oppose this agreement.

(Nobuko Tanimura, CNIC)

Who's who

Rika Mashiko, "Fukushima evacuees' rights at risk"
Representative Director, Happiness Project for the Nurture of the Heart and Body

Having been born and brought up in Tokyo, Rika Mashiko used to be a capable business woman. She eventually fell in love with a man from a family conducting farming as a side business in a picturesque rural area. She married him and moved to Fukushima Prefecture, where his family lives. When she visited the kindergarten her daughter, her only child, was to attend and saw the ideal environment that gave full play to the splendors of nature, she began to love Fukushima from the bottom of her heart. She had no farming experience but was given charge of 1600 m² of farming land. Her commitment to organic farming led her to go as far as to sell the vegetables she produced.



Ms. Mashiko and her daughter

When the disastrous earthquake occurred on March 11, 2011, Ms. Mashiko was in Miharu Town, Fukushima Prefecture, 50 kilometers west of the Fukushima Daiichi Nuclear Power Station. On March 15, the town government took the initiative in delivering stable iodine tablets, which are effective for reducing radiation exposure, to households. However, no instruction was provided about when to take them, and people had to make their own decision about whether or not to use them.

Ms. Mashiko started to feel uncertain about the government's handling of the nuclear crisis when her daughter's primary school entrance ceremony was conducted on April 6 as if there had been no reactor accident or radioactive contamination. Worried about radiation exposure, children and their guardians wore masks on the way to school. However, children were not allowed to wear them during the ceremony. One day Ms. Mashiko sent her daughter to school with a water bottle to enable her to drink safe water while at school, but the school would not allow children to drink bottled water. Teachers instructed the children to drink tap water instead. Her daughter spent the whole day without drinking bottled water or tap water. I imagined how thirsty she must have been.

Ms. Mashiko told her family that she had concerns about radiation exposure, but her husband and father-in-law were against voluntary evacuation, believing that the first son of a family should protect the household and take care of the family grave. On May 10, Ms.

Mashiko moved to Tokyo with her daughter. She later became acquainted with many people at such events as radiation prevention study meetings, and formed a network of evacuees. Today, 120 people are connected loosely through the network. "What I wanted was the feeling of having a bond," says Ms. Mashiko about the network, smilingly.

In January 2014, she established a group named ***Happiness Project for the Nurture of the Heart and Body***, to provide evacuees with the support that she had found necessary through her exchanges with them. The project organizes a monthly health consulting gathering, inviting a pediatrician to attend, and is energetically committed to mental care for evacuees. It is suspected that the longer life in evacuation lasts the more the mother's stress influences the growth of the child.

The biggest problem that evacuees face today is that the system that has allowed them to rent housings for free will be abolished from March 2016. "Losing the house is losing the environment you live in. All the grounds of your life, including schools and friends, may be lost. This is not a monetary issue, but an issue of human rights. The rights of children as specified in the Convention on the Rights of the Child may be impaired. We would like people around the world to support us." It was with these determined words that Ms. Mashiko concluded the interview.

(Interviewer: Nobuko Tanimura)

NEWS WATCH

Fukushima Daiichi Unit 4 Pool Fuel Removal Completed

Operations to remove both spent and fresh fuel rods from the spent fuel pool at the Fukushima Daiichi NPS Unit 4 (BWR, 784 MW) commenced on November 18, 2013, and were completed on December 22, 2014, with all 1,331 spent fuel assemblies and 202 fresh fuel assemblies removed. In addition, fresh fuel assemblies were removed experimentally and transferred to the common pool on December 7.

The initial plans called for transferring all of the assemblies to the common pool, but in order to ensure enough space in the common pool, it was decided to put half of the stored spent fuel assemblies in dry casks and keep them at a temporary storage site. It was discovered, however, that some of the casks failed to meet materials standards, so they were eliminated from use, resulting in a shortage of casks. In order to avoid creating a shortage of space in the common pool, 180 of the unspent fuel rod assemblies were transferred to the spent fuel pool of Unit 6 (BWR, 1,100 MW, to be decommissioned).

Approval under New Regulatory Requirements Sought for Ohma NPP

J-Power has petitioned the Nuclear Regulation Authority (NRA) for an inspection to approve the Ohma NPP (ABWR, 1,383 MW) under Japan's new regulatory requirements. This is the first time petitioning has been made for a nuclear reactor still under construction.

The Ohma NPP will be a full-MOX reactor capable of accepting MOX fuel in all reactor cores. Yet far from expressing any concerns about full-MOX reactors, NRA Chairman Shun'ichi Tanaka has adopted an unclear attitude, saying there is no particular need for worry (See p.7).

Regarding spent MOX fuel, the petition says that, as a general rule, it will be reprocessed by reprocessing companies in Japan. Chairman Tanaka has indicated that current reprocessing facilities cannot handle MOX fuel, and therefore, new facilities will have to be created to reprocess this fuel, and plutonium from reprocessed MOX fuel cannot be used unless fast reactors are in operation. He also said he is not in a position to comment on how realistic this is.

Nuclear Regulation Authority has “No Specially Designated Secrets”

Japan's Act on the Protection of Specially Designated Secrets passed on December 6, 2013 went into effect on December 10, 2014. Its objective is to guard against the release of information involving Japan's state security that has a particular need to be kept secret.

On December 8, just prior to the Act's enforcement, the NRA held a closed meeting, in which they declared “At this point in time, since the NRA possesses no information that fills the requirements for Specially Designated Secrets, it has decided not to designate any” (from the

disclosed Proceedings Summary). Based on that, it partially revised its rules on guarding Specially Designated Secrets and essential points for managing administrative documents.

It may have no Specially Designated Secrets, but under the Basic Policies for Strengthening Counter-intelligence Functions (August 2007), even the NRA is said to have Special Management Secrets. In addition, there are regulations under Japan's Nuclear Reactor Regulation Law for guarding secrecy. In reality, information is probably being guarded arbitrarily to protect corporate profits.

Westinghouse Concludes Long-term Contract with EDF for Fuel Orders

On December 19, 2014, Toshiba's affiliate Westinghouse (WH, the company abbreviates its name as WEC, but WH is generally used) announced it had concluded a long-term contract with EDF (France's nationally run electric power company) to supply orders for nuclear power plant fuel reloading. A contract for supplying fuel had been concluded previously, about 6,000 assemblies having been received between 2013 and 2014. This is said to be the first long-term contract, spanning 15 or more years.

Originally, France's own Areva was the exclusive supplier of nuclear fuel for power

generation, but WH has encroached on this, claiming a twenty percent share. In the future, this is expected to grow to 40%. Compared to Areva's product, WH's is well regarded for fewer cases of damaged fuel.

The fuel will be produced at the Vasterås Plant in Sweden, the Springfields Plant in England, and the Juzbado Plant in Spain, which is owned by ENUSA, a partner of WH. WH is said to be capable of supplying fuel for PWR, BWR, AGR and VVER reactors, and received orders from Ukraine, Sweden, Finland, Germany and America during FY2014.

"New" Japan Atomic Energy Commission Inaugurated

Revisions to Japan's Act for the Establishment of the Atomic Energy Commission were made in June 2014 and went into effect on December 16. That day, the chairman remarked, "We are launching new Atomic Energy Commission activities." Never mind that it is called "new," the three committee members it comprises were appointed and began their activities in April, prior to the revisions. This is a strange way to arrange affairs, but Japan's government has become more disorderly since December 2012, when the Abe administration came into power, so this is par for the course.

The Atomic Energy Commission was shrunk from five members to three, and its operations were downsized on the basis of reconsiderations made by the previous administration, which we explained in NIT 152. Even though the administration changed hands, legal revisions were made in accordance with the previous administration's views.

Two of the three commission members are clearly supportive of nuclear energy, and they make no effort to hide it. The third specializes in uses of radiation. While she does not actively promote nuclear power, she expresses her ideas poorly. The chairman, Yoshiaki Oka, is a nuclear engineer and is on record in "Chairman's Remarks" at the beginning of his term as saying, "It is important

that the excellent nuclear technology our country has cultivated and the hard-earned experience gained from TEPCO's accidents in Fukushima be utilized not only in Japan, but worldwide. Japan should lead the world in the field of nuclear energy."

Instead of creating new general principles for nuclear policy as the previous commission did, the Atomic Energy Commission drafted "Basic Concepts." The "Observations Used in Drafting the Basic Concepts" presented by Chairman Oka at the December 24 meeting of the commission, contains the statement, "How about a motto of 'Leading the World' (in top-notch R&D and world-class projects)?"

Vice-Chairman Nobuyasu Abe hails from Japan's foreign Affairs Ministry, with expertise in disarmament and nuclear non-proliferation, but he exhibits a surprisingly low level of awareness. At the annual meeting of the Japanese branch of the Institute of Nuclear Materials Management on November 22, 2014, Vice-Chairman Abe blithely remarked, "It is said that the increasing amounts of plutonium are a problem, but even if money in a bank increases, the risk of theft stays the same. This is a makeshift solution, but the amount of plutonium in storage is tallied at the end of the year, so it would be okay to begin reprocessing in January and use the plutonium before the end of the year so that the amount is reduced by year end."

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