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Review of the Japan Atomic Energy Commission

The Innovative Strategy for Energy and the Environment announced in September 2012 called for a fundamental review of the Japan Atomic Energy Commission (JAEC). It stipulates that the nuclear power policy would henceforth be decided primarily by the Energy and Environment Council, comprised of the Cabinet members concerned. It also said the government would carry out a fundamental review of the commission by setting up a panel to discuss the feasibilities of dissolving or streamlining JAEC, taking into consideration its functions, one of which is to verify the use of nuclear energy for peaceful purposes.

Even after the law on the Nuclear Regulation Authority was enacted on June 20, 2012, no changes were made to the laws and regulations related to JAEC, and its tasks were also basically left unchanged. Now the government is set to change this situation and discuss the feasibility of dissolving or streamlining the commission. The reason why it has decided to do so is because it has gained a perception that some of the tasks stipulated by the law have lost substance and become dead letters.

The feasibility of dissolving JAEC was included in the Innovative Strategy amid the situation where the revision of the New Framework for Nuclear Energy Policy was being deliberated by JAEC's Council for a New Framework for Nuclear Energy Policy. The primary factor behind this move seems to have been the media's revelation of secret meetings held for nuclear power suppliers by JAEC. The Mainichi Shimbun disclosed the existence of the secret meetings in its May 24, 2012 issue and has since repeatedly reported on them.

According to the reports, JAEC discussed the direction of the deliberations by its Council for a New Framework for Nuclear Energy Policy and its technical subcommittee on nuclear power and nuclear fuel cycle with the electric power utilities at the secret meetings, and consulted with them on how to respond to the opinions presented by members of the Council and subcommittee. The disclosure severely damaged public confidence in JAEC.

As a result, the deliberations by the Council for a New Framework for Nuclear Energy Policy, suspended with the outbreak of the nuclear disaster at the Fukushima Daiichi Nuclear Power Station, were halted once again. The council itself was eventually abolished in accordance with the Innovative Strategy.

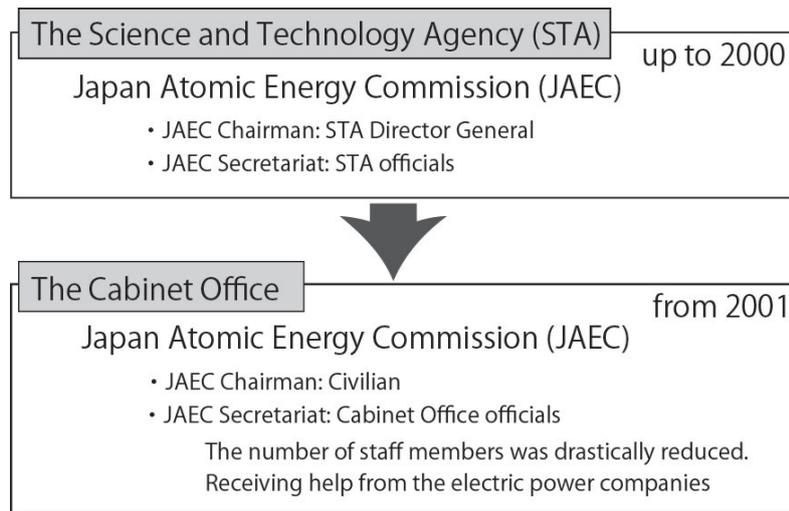
Why were the electric power suppliers participating in the meetings of JAEC's clerical staff? This practice means that JAEC had cozy ties with the electric power utilities. But JAEC gave the excuse that the government's reorganization of its commission carried out in 2001 forced them to work together with the officials of private-sector companies.

JAEC was established as internal subdivisions under the Science and Technology Agency (STA), and the agency officials were in charge of JAEC's clerical work. At that time, The STA Director General also filled the post of the commission's chairman.

However, STA was disbanded in the organizational realignment and JAEC was placed under the Cabinet Office. A new system of appointing a civilian as chairman of the commission was introduced, and the officials of the Cabinet Office were charged with carrying out JAEC's clerical work, but the number of staff members was drastically reduced.

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Government's reorganization of JAEC carried out in 2001 forced them to work together with the officials of private-sector companies.

Since then, JAEC routinely accepted help from private-sector enterprises. JAEC Chairman Shunsuke Kondo said the commission began receiving help from the electric power companies when its office was moved to the Cabinet Office (However, Kondo was not the JAEC Chairman at that time.) Kondo appeared to have been fully aware that the acceptance of such help from power suppliers would undermine the neutrality of the commission. Kondo thus created an excuse that the utility officials came to the JAEC office to attend meetings of his private consulting group.

The National Policy Unit has investigated the secret meetings and has concluded that the deliberations by the Council and the subcommittee were affected and swayed by the secret meetings. Taking this conclusion into consideration, the government included the above-mentioned measures against JAEC in the Innovative Strategy.

In response to this, a panel comprised of intellectuals for reviewing JAEC was set up within the National Policy Unit, which was headed by then National Policy Minister Seiji Maehara. The ten intellectuals on the panel began deliberations on this issue on October 19, and this writer participated in the deliberations as one of the members.

This was at a time when the general election was likely to be held soon (it was actually held on Dec. 16), and a change of government was anticipated. The members therefore compiled a report entitled "Basic Policy for Reviewing JAEC" based on the results of a total of six meetings, and submitted it to Mr. Maehara on December 18. This was a kind of interim report, rather than being a final report.

The law for establishment of the Japan Atomic Energy Commission stipulates that the commission is tasked with:

- 1) work concerning the policies on the use of nuclear energy,
- 2) coordination and adjustment of clerical work among the related administrative offices,
- 3) work to estimate and allocate costs,
- 4) work to check the financial basis of applicants for licenses and authorization, and work to ensure licensees' peaceful use of nuclear energy,
- 5) work concerning financial assistance for research and experiments,
- 6) work concerning the education and training of researchers and engineers (except for those provided by colleges and universities),
- 7) collection of related information and data, and formulation of statistics, and
- 8) other matters of significance.

The tasks to be carried out by JAEC or its successor organization were decided upon as follows.

All the members of the panel shared a perception that 4) work to ensure peaceful use of nuclear energy by the applicants for licenses or authorization is a very important function that should be left in the hands of JAEC or its successor organization. This writer insisted in the panel meeting that there is a need to not only forestall all actions that could lead to development of nuclear weapons, but also to implement the nuclear-waste recycling (uranium enrichment) policy and other related policies with strong authority, in order to ensure the strictly peaceful use of nuclear energy.

In connection with the enactment of the law for establishing the Nuclear Regulation Authority (NRA), the Atomic Energy Basic Law was revised, and will be put into effect in July 2013. With this revision, a phrase, "to contribute to national security of this country" was included in the basic policy for the use of nuclear power. It is needless to say that this revision has raised concerns among other countries that Japan may begin to arm itself with nuclear weapons.

The government has explained that the phrase means “to contribute to protection of nuclear materials and facilities,” and for this reason there is no need to allow any extraneous interpretation of the phrase to take root in society.

However, it is difficult to dispel this concern when we consider two factors; the fact that the phrase was proposed by hawks in the ruling Liberal Democratic Party as an amendment to the law, and the circumstances whereby a new government led by the hawkish Shinzo Abe has been established.

The panel’s consensus is that 1) work concerning nuclear energy policies can be eliminated from the list of JAEC or its successor organization’s tasks. Admittedly the policies on nuclear power generation have already been managed by the Ministry of Economy, Trade and Industry (METI), along with the policies on other types of power generation. As to the direction of the nuclear power policy, a system is already in place in which METI’s advisory committee (Nuclear Energy Subcommittee) deliberates on the issue and the results of its deliberations are reflected in the Basic Energy Plan.

5) work concerning research and development is currently managed by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Since JAEC’s authority does not extend to the two ministries, the commission has no option but to formulate its policy (framework) by combining the policies of the two ministries.

The Basic Energy Plan is presented to the Diet, but the lawmakers do not deliberate on it, so I proposed to the panel meeting that the Basic Energy Plan be deliberated in the Diet.

With regard to 3) allocation of costs, JAEC is currently engaged in the collection of budgetary requests from relevant ministries and agencies, but it has already lost the function of allocating budget. JAEC announces its policy when it submits its budgetary request but the policy is merely a combination of the policies from the ministries and agencies involved.

Task 4) will be transferred to the Nuclear Regulation Authority from April 2013. The task is to manage nuclear materials, including confirming the data provided by the applicant for a license or authorization and inspecting their facilities (This work is currently carried out by MEXT.).

With regard to the task of ensuring the peaceful use of nuclear energy when granting approvals and licenses (one of the conditions for granting approvals and licenses stipulated in Article 24 of the Nuclear Reactor Regulation Law), thus far MEXT has examined each approval or license, which is then rechecked by JAEC.

However, the reality was that JAEC checks were sloppy. Because the commission conducted the checks under the assumption that the nuclear power supplier’s guarantee of the peaceful use of nuclear materials was reliable and trustworthy.

JAEC had previously decided on the policy that Japan will not possess surplus plutonium in order to enhance transparency in the use of the nuclear material, and ordered the suppliers to submit their plans on the utilization of plutonium before they began separating the material from spent nuclear fuel. Although this check was a mere formality and the JAEC approved such plans whenever it received them, this system seems to have worked to some extent as a kind of role to ensure the peaceful use of nuclear materials

The panel was unable to decide on whether JAEC or its successor organization should do the clerical work for ensuring the peaceful use of nuclear energy, or whether they should be charged with the work on other major policies, because this decision should be made with reference the future structure of the organization.

Task 5) was also transferred to another council, the Council for Science and Technology Policy. Task 6) is currently carried out by MEXT. Concerning task 7), many members of the panel said it is convenient and helpful if one organization collects various kinds of information from the ministries and agencies concerned.

The panel was unable to discuss in detail the issue of how JAEC should be reorganized or abolished. One member said the panel should not decide on this issue without holding thorough discussions.

Although the JAEC exerted great influence in the early stages of nuclear development, Japan has already passed through the stable period and entered the declining phase. It is not too much to say that JAEC has completed its basic role. When the Science and Technology Agency was disbanded, JAEC remained intact. But the occurrence of the nuclear crisis in Fukushima and the formulation of the Innovative Strategy triggered the debate on the commission. Considering these overarching changes, the question is how to scale down or abolish JAEC by selecting the functions that should be left in its hands.

Although this is the general direction of the flow of the tide, it is difficult to presume that the Abe government will maintain this policy as it is. How seriously and how deeply the new government will tackle the JAEC issue may become clear by sometime around July.

(Hideyuki BAN, Co-director of CNIC)

Radioactive Contamination of Japanese Tea after the Fukushima Nuclear Accident

Interim standards for radioactive cesium

Until March 31, 2012

Food group	Standard (Bq/kg)
Vegetables	500
Cereals	
Meat, eggs, fish, etc.	200
Milk and milk products	
Drinking water	200

Standards including radioactive strontium set.

New standards for radioactive cesium

From April 1, 2012

Food group	Standard (Bq/kg)
General foods	100
Infant foods	50
Milk	50
Drinking water	10

Standards including radioactive strontium, plutonium, etc, set.

Table 1. Changes in the Standards for Radioactive Cesium Detected in Food Products

Since March 2011, when the nuclear accident occurred at the Fukushima Daiichi Nuclear Power Station, the contamination of food produced in Japan by radioactive substances has become an important issue. From the time of the accident to the end of March 2012, the Japanese government controlled distribution through the application of “interim standards” of radioactive cesium detected in food products. In April 2012, these were eliminated in favor of lower “new standards” (see Table 1). In the case of rice, beef and soy products, however, a long grace period was allowed. In the case of rice, Japan’s staple food, for example, the interim standards were applied for rice produced up to September 30, 2012.

In June 2011, we were greeted by the news that a shipment of Japanese green tea produced in Shizuoka Prefecture had been refused entry into France when the French customs detected over 1,000 Bq/kg of radioactive cesium in the tea. It is quite probable that many people, both inside and outside Japan, gained the strong impression that tea produced in Japan is dangerous.

The November 2012 edition of the TanimuLab. LETTER series, posted each month on CNIC’s Japanese website, took up the issue of the radioactive cesium concentration in teas (*matcha* – powdered green teas) that are being distributed from the different producing areas. In the article, it is stated that of six samples labeled as originating from different producing areas, radioactivity was detected in three samples (one of which is suspected to be a blend of tea leaves from several different producing areas). This article drew a great deal of interest and we are receiving more than the usual numbers of enquiries about it, not only from people within Japan, but also from overseas.

I would like here to give an explanation of the realities of the situation regarding the radioactive contamination of Japanese teas following the Fukushima nuclear accident based

on data published by the Japanese government and the prefectures.

Tea-producing areas

The area of tea cultivation in Japan is 30,900 ha, the production of fresh tea leaves is 153,500 tons, yielding 31,500 tons of dried tea leaves. Dried tea leaves are fresh tea leaves that have been dried, their weight being reduced 80% in the process. Tea is a subtropical crop whose growth is especially sensitive to temperature conditions. In general, locations with an annual average temperature of around 14–16°C and annual precipitation of over 1,300mm are considered to be suitable for cultivation. Japanese domestic tea-producing areas in order of decreasing volume are Shizuoka, Kagoshima, and Mie Prefectures. Areas with good sunshine that are pleasant to live in and which have a temperate climate tend to be good tea-producing areas (see Figure 1). The northern limit of the six large-

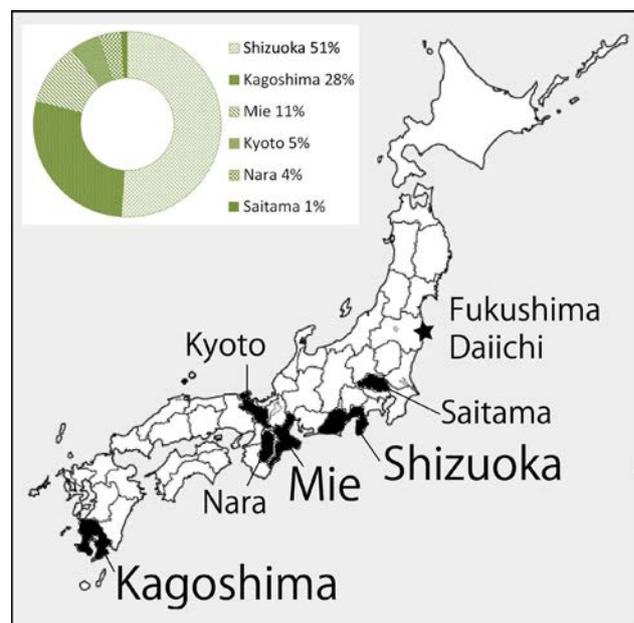


Figure 1. Japanese Tea-producing Areas, FY2011.

volume producing areas is Saitama Prefecture, the tea produced in areas other than these amounting to less than 0.1% of Japan's total tea production. Saitama Prefecture, just north of Tokyo, is located roughly 200km southwest of Fukushima Daiichi Nuclear Power Station. Since it is thought that of all the Japanese tea-producing areas Saitama Prefecture is most affected by the Fukushima nuclear accident, the following discussion will focus on data from Saitama Prefecture.

Tea shipping restrictions in FY2011

Tea subject to shipping restrictions during FY2011 (April 2011 to March 2012) due to the interim standards on radioactive contamination being exceeded was produced in Ibaraki, Kanagawa, Chiba and Tochigi Prefectures. The Shizuoka tea factory that produced the tea that was blocked by the French customs on June 22 was asked to exercise "voluntary restraint" by Shizuoka Prefecture and was not subject to "shipping restrictions." Only six days later, on June 28, *nibancha* (new tea leaves that grow after the leaves have been picked once, around six weeks later than the first picking) from this factory and tea leaves from subsequent pickings were confirmed to be safe (less than 500 Bq/kg) by prefectural authorities and the voluntary restraint on shipping was lifted. Further distribution of *ichibancha* (first picking) from the factory was then allowed to proceed only for tea which was confirmed to be safe by prefectural authorities. On August 5, it was announced that testing had been carried out on *ichibancha* produced by 20 tea factories in the area where the factory mentioned above is located, and radioactive cesium exceeding 500 Bq/kg was detected in tea from five factories. The average contamination was 444 Bq/kg. Shizuoka Prefecture then requested that these five factories exercise voluntary restraint on the shipping of the tea and carry out a voluntary recall of the tea that had already been shipped.^[1]

The Ministry of Health, Labour and Welfare (MHLW) ran radioactivity tests on distributed teas, announcing on September 2 that radioactive cesium had been detected in tea produced in Chiba Prefecture (2,720 Bq/kg), and Saitama Prefecture (three samples, 1,270 Bq/kg, 1,530 Bq/kg and 800 Bq/kg). On September 5 it was again announced that radioactive cesium had been detected at a level of 800 Bq/kg in tea produced in Saitama Prefecture.

On September 14, Saitama Prefecture therefore announced that it would implement radioactivity contamination tests on all brands of tea produced in Saitama Prefecture and would only allow distribution to the market of teas that were confirmed to be safe.^[2] The result was that of 1,446 brands, 111 brands were found to exceed the interim standard of 500 Bq/kg. Radioactive cesium contamination of Saitama teas produced in 2011 shows a distribution range centered on 200 Bq/kg with a curve sloping down towards the high-contamination levels.(Figure 2)

The fresh tea leaves produced in Japan's second largest tea-producing area, Kagoshima Prefecture (southern Kyushu) contained radioactive cesium at a level of 0.12 Bq/kg (July to September 2011). In the third largest producing area, Mie Prefecture, it has been announced that 10 Bq/kg or less of radioactive cesium were detected in two kinds of dried tea leaves. We can therefore assume that tea produced in any area west of Mie Prefecture has not been contaminated to any level that would pose a problem in deciding whether to ship or not.

The demarcations used by the government for areas from which shipping is restricted are said to be "In principle prefectures, but may also be divided into several blocks within a prefecture if management is possible by the prefecture, city, town and village administrations." At the same time, Saitama Prefecture and Shizuoka Prefecture

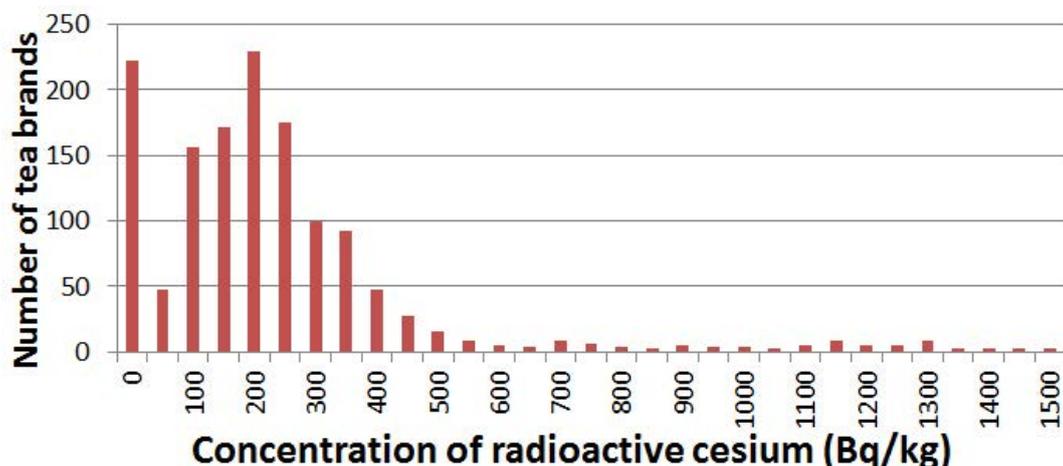


Figure 2.

Concentration of Radioactive Cesium in Saitama Prefecture Dried Tea Leaves, FY2011
(Compiled by CNIC from official announcements by Saitama Prefecture)

tested teas produced in their prefectures according to producing area and brand, making judgments on whether or not to ship on the basis of smaller geographical areas. This is thought to have occurred because these prefectures are major tea-producing areas, and this was therefore a measure to contain economic losses to as low a level as possible. Especially the fact that "voluntary restraints" and not "shipping restrictions" were imposed was an attempt to protect the brand image of the tea.

After the Fukushima nuclear accident, MHLW posted on their website a list of the types and areas of production of foodstuffs on which shipping restrictions had been imposed, but there was no mention of contamination in teas from Shizuoka or Saitama Prefectures due to the way the problems had been handled in those areas, as mentioned above.^[3] Anyone not knowing the background who might have looked at this MHLW website in order to research the situation of the radioactive contamination of tea might have formed the mistaken impression that teas from Shizuoka and Saitama Prefectures were not or had not been contaminated. Information concerning the voluntary restraint of shipping was only posted on the prefectural websites.

Tea processing and changes in thinking in the new standards

Tea processing consists of the stages: fresh tea leaves → dried tea leaves → manufactured tea → tea for drinking. The fresh tea leaves are those picked in the tea field, which are steamed and dried to become the dried tea leaves. These are then further dried and perfected to become "manufactured tea." The liquid tea produced as a

result of brewing the tea in hot water is known as "tea for drinking." What is generally distributed as tea leaves is in the form of "manufactured tea."

In FY2011, tea in the form of dried tea leaves was used for radioactive contamination testing. As noted above, the weight of the tea is reduced 80% when processing the tea from fresh tea leaves to dried tea leaves. Since the standards for regulations on radioactive substances is expressed as a value per unit weight, if the weight is reduced to one fifth, then the concentration of radioactive materials per unit weight must jump five times. Possibly the reason why the radioactive contamination of tea was more serious than other kinds of leafy foods such as vegetables is that the same standard for radioactivity (500 Bq/kg) was applied to tea despite the fact that tea undergoes a drying process.

Tea is included in the category for 'drinking water under the new standards introduced in April 2012. Because of this, it is now required that tea in the form of liquid brewed tea for drinking contains 10 Bq/kg or less of radioactive cesium, and the levels of radioactive cesium in dried or manufactured teas are no longer questioned. According to official announcements on actual extraction (brewing) experiments carried out by MHLW, 270 Bq/kg of radioactive cesium contained in dried tea becomes approximately 5.2 Bq/kg when extracted (brewed) as tea for drinking, a 98% reduction of the concentration of radioactivity per unit weight.

How has the concentration of radioactivity in tea changed from FY2011 to FY2012?

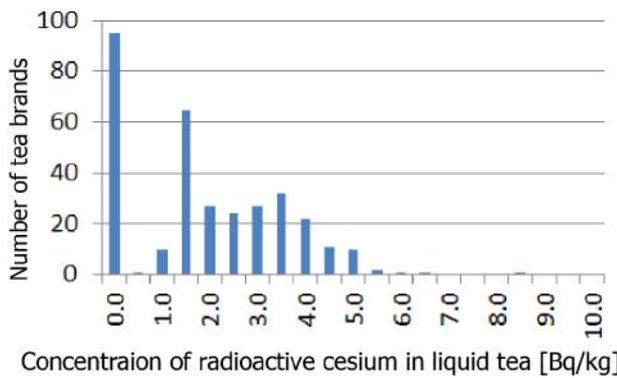
Since the standard for tea was changed in April 2012, there has been no tea subjected to a shipping restriction due to the standard being exceeded. Looking at the radioactive cesium levels announced by Saitama Prefecture for liquid tea for drinking, all 329 samples were below the standard (Figure 3).

Figure 4 shows the results of radioactive cesium in all brands of Saitama tea in FY2011 arranged by date of announcement. With regard to harvesting time of the tea, Saitama Prefecture has only announced information such as "young leaves, early picking" and "other." In FY2011, when the accident occurred, of the tea that was produced in the early summer some of the brands contained a very high concentration of radioactive material, but these high concentrations were not detected in tests carried out from the fall onward.

In considering how the situation has changed from FY2011 to FY2012, it is very disappointing that the standards have been changed to the test results for liquid tea for drinking and the results of radiation testing of

	Fresh tea leaves
	Dried tea leaves Less than 500 Bq/kg until March 31, 2012
	Extracted (brewed) liquid tea for drinking Less than 10 Bq/kg from April 1, 2012

Table 2. Form of processed tea and changes in the radioactivity standards



Concentration of radioactive cesium in liquid tea [Bq/kg]
 Figure 3.
 Concentration of Radioactive Cesium in Saitama Prefecture **Liquid Tea for Drinking** (Bq/kg)

dried teas are no longer published. There is therefore no data for comparing the contamination difference between the two fiscal years. Based on the data for liquid tea from Figure 3, and taking into account the fact that the concentration of radioactive substances is reduced 98% by extraction (brewing), by estimating that the radioactive contamination of FY2012 dried tea is 50 times that of liquid tea for drinking, then the concentration of radioactivity in the dried leaves would be distributed over a range centered on 100 Bq/kg.

It would appear that the center of the distribution of radioactive cesium fell from around 200 Bq/kg in 2011 to around 100 Bq/kg in 2012. Even now the dried teas contain amounts of radioactive cesium that can be easily detected.

Thinking about how things will be in the future, since it is not likely that the radioactive substances found in plants will fall drastically between the second and third year after the nuclear accident, radioactivity will probably continue to be detected in tea next year and in years to come. However, all the teas produced in Japan in FY2012 have been below the standards for foodstuffs, and therefore unless some unforeseen even occurs, no tea exceeding the standards will appear. I have not discussed it here, but since the standard applied to powdered *matcha* is that of general foodstuffs (100 Bq/kg), it is quite possible that products exceeding the standard will appear.

People's interest in the contamination of foodstuffs is naturally high, and we would like to call for the enhancement of the testing system and thorough information disclosure. I believe that this should not be left simply up to the administration to carry out, but that continual monitoring by citizens is also necessary.

(Nobuko TANIMURA, CNIC)

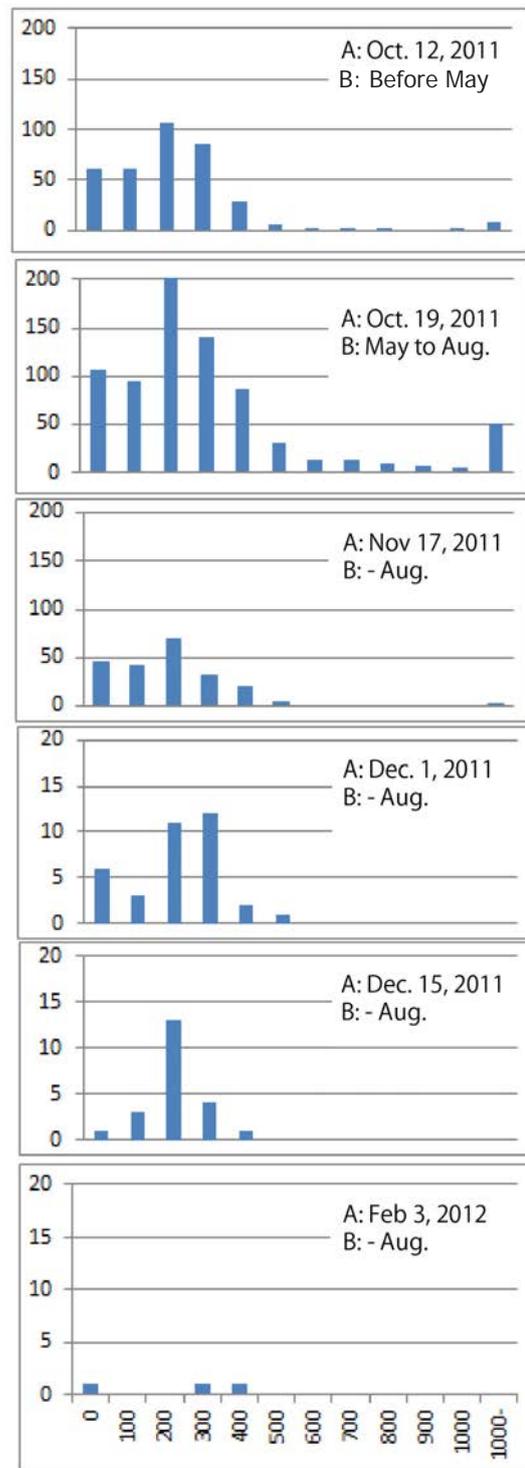


Figure 4.
 Changes in Radioactive Cesium in Saitama Prefecture **Dried Tea leaves**
 A: Date of announcement, B: Estimated time of harvest

1. <http://www.pref.shizuoka.jp/sangyou/sa-340/cha-housyanoukekka-h23-kenbun.html>
2. <http://www.pref.saitama.lg.jp/site/sayamacya-annzen-kakuho/ocha-tyousa.html>
3. <http://www.mhlw.go.jp/stf/houdou/2r9852000001dd6u.html>

Japan's Energy Policy Stalemate: Democracy or Vested Interests

Philip White

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The national election was held on 16 December amidst general confusion in Japanese politics. Faith in the governing Democratic Party of Japan (DPJ) had sunk to an all time low and for various reasons parties offering a clear policy of phasing out nuclear power were not popular. Therefore, despite the fact that opinion polls still showed the majority supporting a nuclear phase out¹ the Liberal Democratic Party (LDP), one of the few parties that did not explicitly advocate phasing out nuclear power, won convincingly.

Such are the contradictions of representative democracy. In recognition of the fact that representative democracy does not necessarily produce policies that represent the will of the people, more participatory approaches to government have been promoted throughout the world. Considerable progress has been made at the local level in Japan, but the national government has not yet caught up with the trend.

In this context the “national debate” on energy policy (see NIT 151) held in July-August 2012 should be seen as progress. The “Innovative Energy and Environment Strategy” released shortly after the national debate set the previously unthinkable target of zero nuclear energy by the end of the 2030s. In resolving to phase out nuclear energy, the DPJ government did what no Japanese government had ever done before in the energy policy field: it allowed itself to be influenced by the will of the people.

The backlash was immediate. Business groups banded together to condemn the Strategy, governors of prefectures hosting nuclear facilities expressed concern about the future of these facilities and, perhaps equally significant, the governments of France, the UK and the United States communicated their displeasure. In the face of this onslaught the government went weak at the knees and failed to give the Strategy formal Cabinet endorsement.

National Debate

When the direction of the energy policy review process was first announced at the end of July 2011, a so-called “national debate” was firmly on the agenda, but before the national debate could begin the parameters had to be established. A series of committees spent the better part of a year drafting policy options for the public to consider. Then in July and August last year the national debate finally took place. The public was invited to consider three options for the proportion of nuclear energy in Japan's electricity generation mix in 2030: zero, 15%, or 20~25%.

The national debate, which involved public



Mr. Philip White

comments, public hearings and a deliberative poll, took place against a backdrop of massive protests against Japan's nuclear power plants. Every Friday evening, from tens of thousands to hundreds of thousands of people turned out in Tokyo's political district to protest. Unlike past protest movements, this one did not have any clear organizational backing, so it could not be dismissed as “the usual suspects”.

Despite the protests, the outcome of the national debate must have surprised the government. It appears that the government wanted to choose the 15% nuclear option², but the overwhelming majority of participants in the public hearings and nearly all the 90,000 public comments favored a total phase out. In many cases they didn't want to wait till 2030; they wanted Japan's nuclear power plants to be permanently closed down now.

The outcome of the deliberative poll was not so overwhelming, but in some ways it was even stronger evidence of public support for a nuclear phase out. The support for the zero option amongst the almost 300 randomly selected participants in the two-day event became more and more pronounced as the deliberative process proceeded.

Presented with such a conclusive rejection of nuclear energy in a public participation process on which it had staked its credibility, the government was forced to bend. It had to include the “zero” word somehow. But the Strategy that it came up with was patently contradictory, purporting to support the continuation of the existing nuclear fuel cycle policy and stretching out the phase out deadline to the end of the 2030s, while providing no credible pathway to zero.

Response of Foreign Governments

The public reaction of France and the UK predictably related to Japan's responsibility to accept the return of radioactive waste from spent nuclear fuel reprocessed in their countries.³ However, the response of the United States was more complex.

The United States is concerned about the proliferation implications of Japan's massive plutonium stockpile, which currently stands at 44 tons, enough to make over 5,000 Nagasaki-style bombs. If Japan goes ahead with its nuclear fuel cycle program, in particular reprocessing spent nuclear fuel, this plutonium stockpile will grow even larger. But if Japan intends to phase out nuclear power, it will have no reactors in which to use this plutonium.

The US Government could have responded in either of two ways: by stating that it would retract permission to reprocess spent nuclear fuel sourced in the United States, or by pushing Japan to retract its nuclear phase out Strategy. It has certainly expressed its concern about the implications of the contradictory Strategy for Japan's plutonium stockpile, but it seems to be emphasizing the latter approach, namely calling for Japan to remain committed to nuclear power.

At least one of its motivations is not hard to fathom. In recent years Japan has become more than just a customer for the US nuclear industry. The current state of the US nuclear industry is such that it would be hard pressed to construct nuclear power plants without Japanese cooperation. In fact, Toshiba now owns Westinghouse, while GE's nuclear operations are run through subsidiaries jointly owned with Hitachi.

A Question of Sovereignty

The Innovative Energy and Environment Strategy was considered by the Cabinet on 19 September, five days after it was released, but to everyone's surprise the Cabinet did not formally endorse the document. It simply noted it, saying, 'The Government of Japan will implement future policies on energy and the environment, taking into account "the Innovative Strategy on Energy and the Environment."'

On 22 September, the Tokyo Shimbun newspaper reported that the US Government had demanded that no Cabinet Decision endorsing the Strategy be made.⁴ Other newspapers reported that the US Government was pressuring Japan to abandon its nuclear phase out aspirations.⁵

More recently a series of statements by former senior US officials and advisors suggests a concerted campaign could be underway to intimidate the Japanese Government. These people claim that Japan without nuclear power would be bad for nuclear non-proliferation. The basis for this claim is not fears about Japan's plutonium stockpile. Rather it is that allegedly Japan without an active nuclear power program would be less able to support the United States' non-proliferation efforts.

John Hamre, a former U.S. deputy secretary of defense, said, "The champions of proliferation prevention were the United States, Europe and Japan. ... [I]f Japan stops being nuclear, if America stops being nuclear, if Europe stops being (a collection of) nuclear power countries, who is going to run the global system of security and safety?"⁶ A counter argument would be that Japan, as a leader in renewable energy and energy efficiency, would be a powerful advocate for a nuclear-free future.

The question arises, will the public will expressed in the national debate be over-ridden by pressure from overseas? Will the first tentative steps towards participatory democracy in Japan's energy policy be thus undermined?

The election of an LDP government has confused the picture, but in view of the public sentiment and the impact of the Fukushima Daiichi nuclear accident, even the LDP recognizes that the contribution of nuclear energy to Japan's electricity supply will have to be drastically reduced from past levels. As more and more active faults are found beneath nuclear power plants, restarts will become more and more difficult, and if the government carries out the reforms needed to promote renewable energy and energy efficiency, construction of new nuclear reactors will become economically unviable.

The United States has no right to tell the Japanese whether or not they should phase out nuclear power. On the other hand, all countries, in particular countries which have nuclear cooperation agreements with Japan, have a legitimate right to demand that Japan not add to its plutonium stockpile. They have every right to demand that Japan not separate any more plutonium at its reprocessing plant in Rokkasho.

As Japan struggles to work out a viable energy policy, it needs all the international support it can get, but it does not need to be bullied.

1. "Exit polls conducted by The Asahi Shimbun on Dec. 16 found that 78 percent of respondents favored either an immediate or gradual move toward a nuclear-free society, much larger than the 15 percent who opposed such moves."

'Pro-nuclear bureaucrats back in the picture under Abe' The Asahi Shimbun, December 29, 2012: http://ajw.asahi.com/article/behind_news/politics/AJ201212290056

2. "At one time, a consensus was developing to reduce the ratio of nuclear energy generation to 15 percent from the approximately 25-percent level before the Fukushima nuclear accident. In May, Goshi Hosono, who was state minister in charge of handling the nuclear accident, said the 15-percent level would be one starting point for discussions." (ibid.)

3. 'Western allies concerned about Japan's no-nuke energy policy', The Asahi Shimbun, September 14, 2012: <http://ajw.asahi.com/article/0311disaster/fukushima/AJ201209140081>

4. 'Gempatsu Zero: "Henkou Yochi Nokose" - Kakugi Kettei Kaihi - Bei ga Youkyuu', Tokyo Shimbun, September 22, 2012: <http://www.tokyo-np.co.jp/article/feature/nucerror/list/CK2012092202100003.html>

5. Jiji, 'U.S. energy official voices concern over zero nuclear energy target', The Japan Times, September 14, 2012: <http://www.japantimes.co.jp/text/nn20120914b1.html>

6. Yoichi Kato, 'INTERVIEW/JOHN HAMRE: Japan's 'nuclear zero' goal is bound to hurt global nonproliferation', The Asahi Shimbun, October 25, 2012: <http://ajw.asahi.com/article/views/opinion/AJ201210250092>

Indonesian Nuclear Stalemate... Until 2014?

Dian Abraham

Director of the Anti-Nuclear Society (MANUSIA)



The long Indonesian journey on the road to nuclear energy has reached the third phase after the failure of the previous two phases in the decades of the 1970s and 1990s.

In the first phase, BATAN (Indonesia's National Nuclear Energy Agency) carried out a joint survey for the introduction of a nuclear power plant (NPP) with IAEA in 1971, and a similar joint survey with the Italian Nuclear Italiana Reattori Avanzalis p.A. from 1977 to 80. The first phase was shelved after the members of the Preparatory Commission on Construction of NPP became divided into two opposing groups. The secretary of the Committee claimed that nuclear power was not economical; a claim that he still holds to this day.

The second phase was started during the heyday of the Soeharto administration in the late 1980s. A plan was drawn up to build an NPP with a total power generation capacity of 7,200 MW on the Muria Peninsula on the north coast of Central Java. The promoter of the plan was the then Minister of Research and Technology, BJ Habibie, who replaced Soeharto as President in 1998. It

was during this time that Newjec, a Japanese construction consultant company, conducted a feasibility study on the Muria NPP in 1994.

Nevertheless, after severe criticisms, as well as a demonstration led by MANI (Indonesian Anti-Nuclear Society), following the discussion of the Nuclear Energy Bill in the parliament, it was approved in late February 1997 only for BJ Habibie to announce the cancellation of the nuclear project on 11 March the same year.

The next phase started after IAEA was secretly invited by the administration of the so-called *reformasi* era to assess the Indonesian energy situation and find a solution. Eventually, assisted by the Japan Bank for International Cooperation (JBIC), the energy planning study by CADES (Comprehensive Assessment for Different Energy Sources for Electricity Generation) was carried out in 2001-2002 and became the basis of Indonesian energy policy, including the new Law on Energy of 2007. And yes, as anybody can guess, nuclear energy was to be part of the solution.

The Projects and the Grassroots' Voice

To test the water, the government suggested a project with South Korea. The Indonesian government inked an MoU with the Korea Atomic Energy Research Institute (KAERI) to conduct a feasibility study for SMART nuclear desalination reactors, which had never been built before, on Madura Island in East Java Province. However, the nuclear project met with resistance from the local Madurese. So strong was the movement that no government officials ever mention the project now. Later on, in 2004, the then Minister of Research and Technology, Hatta Rajasa, announced a plan to revive the Muria NPP project in Jepara, which was canceled in early 1997. Like the Madurese, the local Javanese strongly opposed the project of four 1,000 MW reactors. Long marches and street protests were held. Even the local chapter of Nahdlatul Ulama, the largest Indonesian Muslim organization, issued a *fatwa* of *haram* (an Islamic prohibition) on the Muria NPP project.

As a result, since about 2010 most top officials have refrained from citing Muria as the NPP site. Instead, they announced a plan to find alternative sites where the residents will be more inclined to accept the nuclear plant.

The site being seriously considered is located in Bangka-Belitung (Babel) Province in Sumatra. The governor and the heads of the districts have already encouraged Jakarta to speed up the preparation of the site. Everything seemed well and not many local people reacted negatively against the plan.

Fukushima Effect...

Then the Fukushima accident happened. Slowly but surely, local residents became aware of the nuclear plan in their surroundings as well as its inherent danger. They learnt from the situation in Japan and strongly doubted the capability of the Indonesian government to handle a similar situation better than the Japanese.

Increasingly, they also realize that this very plan was previously rejected by the Javanese in Jepara. They understand that since it is difficult to find a peaceful site in Java, the plan has been moved far away to Sumatra even though those who need the electricity more are in Java, especially Jakarta. This means exactly the same thing as Fukushima: the electricity is for Tokyo while the risk remains in Fukushima.

No wonder the situation with the local people in Babel province these days is totally different from the pre-Fukushima time.

...and the Nuclear Advocates Responses

In Babel Province, the local government still insists on securing the nuclear plan to build two reactors of 1,000 MW each. The feasibility study for the site is still going forward. However, nobody can be certain that the plan will proceed. According to the law, the decision-making will be conducted by the President. However, it is very unlikely that President Yudhoyono will sign a "go nuclear" decree. As a notorious safe-player, President Yudhoyono will not risk his image to adopt the nuclear option, although many of his closest officials are known to be nuclear advocates. Instead, he stated, in Japan and elsewhere, that Indonesia will not build nuclear plants.

Most of the nuclear die-hards have criticized the reluctance of Jakarta to formally declare the "go nuclear" option. These people are mostly composed of academicians at top Indonesian universities, members of parliament, and some Muslim leaders.

They have indeed not learnt the lessons of Fukushima. Ridiculously, some of them boasted to the media that Indonesia will build reactors of a better design than those of Japan despite the fact that Indonesia has never built a commercial reactor and that it is probably Japan itself that will supply reactors to Indonesia if the plan goes ahead. Even an official of BATAN who was trained in Japan and worked with Japanese counterparts maintained his belief that Japan would still hold on to the ambition of achieving 100% of the electricity supply by nuclear energy even though at the time Japanese reactors were being switched off one after another.

The Importance of Elections in 2014

Right now, the dream of Indonesian nuclear advocates is over. At least, until the next general election, as well as presidential election scheduled to take place in 2014. Since Yudhoyono is barred from running in the presidential election due to the presidential term being limited to a maximum of ten years in Indonesia, the key is in the hands of his successor. Should it be, for instance, Hatta Rajasa, the Coordinating Minister for Economic Affairs, or President Yudhoyono's in-laws, who have already declared their intention to run in the election, the revival of the nuclear plan could be faster than ever. As we all know, Hatta Rajasa was the one who declared the revival of the Muria NPP in 2004, as well as being invited by President Lee Myung Bak of South Korea to visit Kori NPP during his role as Yudhoyono's special envoy just one month before Fukushima.

Thus not much can be done nowadays – the battle is still ahead, in 2014.

Group Introduction

Radiation-exposed Workers' Solidarity Network***Protecting the safety and lives of radiation-exposed workers, who are coerced into trading their health for payments***

by SHIN Koichi, Member of Radiation-exposed Workers' Solidarity Network*

*Photo of establishment ceremony of Radiation-exposed Workers' Solidarity Network*

The Radiation-exposed Workers' Solidarity Network was officially established on November 19, 2012 after a preparation period of more than one year. This Network consists of activists from various fields, including lawyers and members of labor unions, occupational safety and health centers, homeless-worker support groups, and anti-nuke organizations.

An estimated total of 400,000 people work in nuclear power plants in Japan, but the reality of their work conditions has been practically unknown. While such workers obtain salaries in exchange for exposure to radiation, thereby trading their health for cash payments, they are paid only what remains after subtractions are made by intermediate subcontractors, who form a complicated labor-supply system. The workers are not given the proper legally mandated safety training, and their exposure dose control is inappropriate. In fact, some workers have had false dosimeter readings recorded, or have even faked dosimeter readings with lead coverings, because workers whose radiation exposure exceeds the dose limit cannot be hired.

Nuclear-plant workers are laid off when each job is completed, and if a worker subsequently becomes ill due to exposure, no one assumes responsibility. A researcher said that radiation-exposed work is slave labor, and this is very true. Many nuclear-plant workers lose their dwellings when they lose jobs. Under such circumstances, workers cannot speak up easily. No employers hire workers who have raised their voices. Upper-layer subcontractors can avoid trouble and stay safe by terminating contracts with lower-layer subcontractors. The entities who benefit most from such a labor-supply structure are electric power companies, general constructors, and the government that has tacitly approved of it. After the Fukushima nuclear disaster, the required number of radiation-exposed workers

has jumped and the exposure limit has been notably raised. Nevertheless, they continue to be hired at low pay and treated discriminatorily, the safety and health control issues being played down.

In addition, many local people are hired to remove radioactive material emitted to the environment from the Fukushima disaster. Like nuclear-plant work, this decontamination work is also controlled by multiple-layer subcontractors headed by general constructors, and has the same problems. One subcontractor defrauded workers of the hazardous-work allowances they are supposed to receive from the Japanese government. Some workers rose up in anger and negotiated repeatedly with the subcontractor in cooperation with local labor unions and this Network, and succeeded in having the allowances paid back. This Network intends to confront the government with such cases.

Many nuclear-plant and radiation-removal workers are locals. The very people who suffered from the earthquake and nuclear plant disaster are ones who are now cleaning up the post-disaster mess. The lives, employment conditions and health of such workers must be protected. The Network held a gathering to give these workers consultation on employment and health in Fukushima. A communication exchange gathering of decontamination workers was also organized. The Network is gradually developing detailed connections with actual workers. Even if nuclear power plants are closed, labor for reactor decommissioning will continue to be needed. The Network would like to work together with workers and improve their current labor conditions as much as possible while listening to their voices, learning more about them, spreading relevant information, and struggling with the current exploitative system.

*<http://www.hibakurodo.net/>

NEWS WATCH

Hitachi's General Headquarters for Overseas Nuclear Power Strategy

On December 1, Hitachi established a new general headquarters for its in-house Hitachi Power Systems' overseas nuclear power strategy. General Manager Masaharu Hanyu serves concurrently as CEO of the Nuclear Systems Division. The headquarters will bear the function of facilitating the smooth operation of the British and Lithuanian nuclear plant industrial machinery business.

Rokkasho Reprocessing Plant Begins Glass Vitrification Tests

On December 7, Japan Nuclear Fuel Ltd. began performance tests to confirm the stable operation of vitrification furnace B at the Rokkasho Reprocessing Plant in Rokkasho Village, Aomori Prefecture. The performance test was finished on January 3, 2013. After that, vitrification furnace A is to be tested from the spring, and by August receive pre-operational inspections from the government, hoping to achieve plant completion in October.

Fracture Zone Investigations Show Active Faults Highly Probable in Nuclear Plant Areas

The Nuclear Regulatory Authority conducted fracture zone investigations on November 2 at Kansai Electric's Ohi Nuclear Power Plant, on December 1 and 2 at the Japan Atomic Power Company's Tsuruga Nuclear Power Plant, and on the 13th at Tohoku Electric's Higashidoori Nuclear Power Plant. Tsuruga and Higashidoori are thought to lie on active faults, as each investigation team has concurred. For Ohi, consensus has not been reached, and the reinvestigation on December 28 and 29 failed to reach a conclusion. The decommissioning of Tsuruga became highly probable as important equipment sits above the fault, and a revision of Higashidoori's earthquake resistance has become necessary.

Hamaoka Nuclear Power Plant's Embankment Barrier Raised to 22 Meters

On December 20, Chubu Electric announced a revision of its tsunami countermeasures by raising the height of the embankment barrier from 18 meters to 22 meters on the seaward side of the suspended Hamaoka Nuclear Power Plant (2 BWRs 2,237 MW, 1 ABWR 1,380 MW). The huge steel barrier will be built with a total length of 1.6 km. After work commenced on the 18 meter embankment barrier, a Cabinet investigative commission of experts forecast the highest tsunami at 19 meters, and results of an analysis predicts the tsunami rising to a maximum of 21.4 meters on embankment impact.

Britain "Can Accept" Japan's Plutonium

In an explanation of "Britain's plutonium management" given at the Japan Atomic Energy Commission on December 21, first secretary of the British Embassy in Japan Richard Oppenheim (Energy and Environment Section Head) indicated a perception that the UK could accept plutonium that is being stored in Britain for Japan's electric power companies. Two options are being proposed for plutonium owned by Britain's overseas clients:

- 1) Accept and process the plutonium into MOX fuel at a new British plant targeted to begin operation in 2025, or
- 2) Britain's acquiring the ownership rights and managing the plutonium according to British policy.

However, in the latter case, as seen from the comprehensive viewpoint of the Nuclear Decommissioning Authority (NDA), it would be necessary to demonstrate to the British government that the benefits for Britain would actually be forthcoming, thus indicating that there were still high hurdles to be overcome before the UK would consider taking possession of the plutonium.

Japan Atomic Energy Commission's Position on High-Level Radioactive Waste Disposal

On December 18, the Japan Atomic Energy Commission finalized its views in a document entitled "Future Efforts for the Geological Disposal of High-level Radioactive Waste." In September 2010, the Commission requested proposals from the Science Council of Japan, and the current document is based on the "response" received in September 2012. However, the Commission's position is to not consider the Science Council's proposal to create a limit on nuclear waste by introducing "total volume management." In addition, they are not adopting another proposal, "temporary storage," as they have taken the aggressive attitude that geological disposal can secure both reversibility and recoverability, ultimately remaining sold on geological disposal.

LDP-New Komeito Return to Power

On December 16, the Liberal Democratic Party won a convincing victory in the Lower House election, and on the 26th, the Shinzo Abe Cabinet was inaugurated as the LDP formed a coalition with the New Komeito Party. On the 29th, Prime Minister Abe inspected the Fukushima Daiichi Nuclear Power Station and then told a group of reporters he would not follow the previous administration's nuclear power policies.

The Fukushima Ministerial Conference on Nuclear Safety

From December 15 to 17, the Japanese government held "The Fukushima Ministerial Conference on Nuclear Safety" in Koriyama City, Fukushima Prefecture, in which 117 countries and 13 international organizations participated. A ministerial level meeting was held on the 15th, and a meeting of experts took place on the 16th and 17th. On the 15th, Foreign Minister Koichiro Gamba and Belarus Minister of Emergency Situations Vashchenko signed a cooperation agreement for the promotion of post nuclear accident responses. In addition, Fukushima Governor Yuhei Sato and Director General of the IAEA, Yukiya Amano, signed a memorandum of cooperation on decontamination and related issues.

Shipment of Vitrified Canisters from Britain in February

It has been announced that 28 of the vitrified glass containers of high-level radioactive waste fabricated from reprocessed spent fuel from Japan's electric power companies at the British Sellafield Reprocessing Plant will be shipped soon to Japan Nuclear Fuel Ltd's storage facilities in Rokkasho Village, Aomori Prefecture. The shipment departed the port of Barrow-in-Furness on January 9 bound for Japan via the Panama Canal. It is estimated that it will arrive at Rokkasho Village's Mutsu-Ogawara Port in second half of February.

"Solidarity with Fukushima!" Goodbye to Nuclear Power Plants! March 2013

Meeting and Rally

Date: March 9, 2013, Starting at 14:00 (Meeting), 15:15 (Rally)

Place: Meiji Park
(3-minute walk from Sendagaya (JR line) 2-minute walk from Kokuritsu-Kyogijo (Oedo line))

Public lecture

Date: March 11, 2013, Starting at 18:30

Place: "Kyurian" citizen hall of Shinagawa ward, Tokyo (2-minute walk from Oote-machi (JR line, Rinkai line and Tokyu line))

Speakers: Katsuto Uchihashi, Kenzaburo Ooe, Ryuichi Sakamoto and Masafumi Goto, Hisae Sawachi, Syuji Shimizu and Hitoshi Yoshioka.

Meeting at Fukushima

Date: March 23, 2013, Starting at 11:00

Place: Azuma Gymnastic Hall, Fukushima city

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